Range Safety

POLICIES AND PROCEDURES FOR CONDUCTING WEAPONS FIRING AND TRAINING EVENTS FOR CAMP ATTERBURY-MUSCATATUCK

History. This regulation supersedes Camp Atterbury-Muscatatuck Regulation 385-63 Policies and Procedures for Conducting Weapons Firing and Training Events on Camp Atterbury-Muscatatuck dated 10 NOV 2015.

Summary. This regulation prescribes policy and procedures for conducting weapons firing/training on Camp Atterbury-Muscatatuck ranges, in training areas and all training facilities.

Applicability. This regulation applies to all users of Camp Atterbury-Muscatatuck ranges and training areas and facilities.

Internal Control System. This regulation is subject to the requirements of AR 11-2.

Supplementation. Supplementation of this regulation is prohibited without prior approval of DPTMS, Camp Atterbury-Muscatatuck and will not supersede, change, rescind, or duplicate higher-level command policy.

Suggested Improvements. The proponent of this regulation is the Director, Plans, Training and Mobilization, Headquarters Camp Atterbury-Muscatatuck, ATTN; DPTMS, Building 127, Edinburgh, Indiana 46124-5000. Users are encouraged to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms).

Restrictions. Approved for public release, distribution unlimited. Local reproduction is authorized.

BROKAW.FELIC Digitally signed by BROKAW.FELICIA.1086195174 IA.1086195174 Date: 2018.08.08 14:45:09 -04'00'

FELICIA BROKAW COL, LG, USA Commanding

Contents Page
Table of Contents1 Summary of Changes
Chapter 1
General.
1-1 Purpose and Implementation8
1-2 References
1-3 Responsibilities9
1-4 Guidelines for Safety Certification Programs Atterbury-Muscatatuck
1-5 Deliberate Risk Assessment Worksheet13
1-6 Accident/Incident Reporting 14
1-7 Requesting Ranges and Training Areas/Facilities
1-8 Access To Ranges and Training Areas/Facilities
1-9 Use of Ranges and Training Areas/Facilities
1-10 Clearance of Training Areas 17
1-11 Communications
1-12 Weather Warnings 19
Chapter 2
Ranges and Training Areas/Facilities
2-1 Restricting Access to Impact Areas
2-2 Warning Signs and Barricades
2-3 Live Fire Range Usage 22
2-4 Training Areas/Facilities, Non-Firing Ranges and Training Area Roads 24
2-5 Range Use by Non-Military/Civilian Agencies
2-6 Accidental, negligent, or willful damage to Installation property
Chapter 3
Ammunition
3-1 Positioning and Issuing Training Ammunition and Explosives
3-2 Qualifications and Restrictions on Ammunition and Explosive Use
3-3 Nonstandard ammunition and explosive items27
3-4 Suspension of Ammunition and Explosives Involved in Malfunctions
3-5 Unexploded Ordnance, Misfire Procedures and Reporting of "Duds"

3-6	Police of Ammunition.	29			
3-7	Ammunition and Explosives (A&E) Amnesty Program	29			
Cha	ipter 4				
Rar	ige Firing				
4-1	Firing	.30			
4-2	Night Firing Activities	.32			
4-3	Accident and Incident Reporting	32			
4-4	Special Firing Restrictions	32			
Cha	ipter 5				
Tar	gets and Training Aids				
5-1	General Requirements for Range Targets/Target Mechanism Support	33			
5-2	Targets on Non-Automated Direct Fire Ranges	33			
5-3	Targets on Automated Direct Fire Ranges.	33			
5-4	Targets on Temporary or Portable Direct Fire Ranges	34			
5-5	Targets on Indirect Fire Ranges.	34			
5-6	Training Aids	34			
Cha	ipter 6				
Sm	all Arms & Machine Guns				
6-1	Firing Conditions.	35			
6-2	Machine Guns	35			
6-3	Blank Ammunition	36			
Cha	Chapter 7				
Gre	nades and Grenade Launchers				
7-1	Hand Grenades	36			
7-2	Grenade Launchers and Grenade Machine Guns.	38			
Cha	ipter 8				
Ant	itank Rockets				
8-1	Firing Conditions	38			
Cha	upter 9				
Recoilless Weapons.					
Rec	coilless Weapons.				
Rec 9-1	oilless Weapons. Firing Conditions	39			

Mortars

10-1 General	40
10-2 Firing Conditions	40
10-3 Surface Danger Zones	42
10-4 Mortar Sabot and the Short Range Training Round (SRTR) Firing	43
10-5 Additional Safety Requirements.	43
Chapter 11	
Field Artillery	
11-1 General	44
11-2 Firing Conditions: Requirements for Conventional Field Artillery	44
11-3 AFP Assignments	44
11-4 Field Artillery Cannon, (Howitzer) – Requirements for Conventional Field Artillery	44
11-5 Field Artillery Cannon Surface Danger Areas	46
11-6 Declination and Declination Stations	47
11-7 Co-Use	48
11-8 Observation Posts	48
11-9 Firing Restrictions.	48
Chapter 12	
Tank and Bradley Fighting Vehicle (BFV) Gunnery	
12-1 Firing Conditions – General	49
12-2 Tank and BFV Firing Safety	49
Chapter 13	
Aerial Gunnery and UAS Operations	
13-1 General	51
13-2 Aerial Gunnery Safety	51
13-3 Firing Conditions.	52
13-4 Firing Restrictions.	53
13-5 UAS (Unmanned Aerial Systems)	53

ter 14					
Air Defense Artillery Weapon Systems					
General55	;				
Firing Conditions – General Requirements 55	;				
Air Defense Automatic Weapons System Firing 55	;				
ter 15					
ed Missiles					
TOW Missiles	;				
Javelin Missile57	,				
ter 16					
nical Agents, Smoke, and Aircraft Spray					
General58	;				
Riot Control Agents (RCA) 58	;				
Smoke)				
Smoke Generator or Smoke Pot Use 60)				
Mission-Oriented Protective Posture (MOPP) Operations)				
ter 17					
s, Firing Devices, Trip Flares, Simulators, and Explosive Charges					
General 60)				
Hand Grenade, Artillery, and Other Explosive Simulators)				
Ground Flares, Booby Trap, Mine and other Simulators61	l				
Hand Held Signals	2				
Demolition and Explosives Firing62	2				
Mines	ŀ				
MICLIC Operations	;				
ter 18					
Lasers					
General66	;				
Precautions for Laser Device Use	;				
Laser Firing Range Operations)				
	ter 14 afense Artillery Weapon Systems General				

Chapte	er 19	
Live Fir	re and Maneuver Exercises (LFMX)	
19-1 G	General6	8
19-2 S	Safety During Live Fire Exercises6	;9
19-3 E	Exercise Planning	'0
Chapte	er 20	
Automa	ated Shoot House Live Fire and Maneuver Exercises (ASH)	
20-1 G	General7	'1
20-2 E	Exercise Planning	'1
Chapte	er 21	
Convoy	y Movement	
21-1 V	/ehicle Operations Outside of Cantonment Area7	3
21-2 C	Convoy Operations Involving Military Vehicles on Civilian Roads7	3
Chapte	er 22	
Recreat	tional Activities	
22-1 A	Archery Deer, Small Game Hunting, Fishing, Mushroom Hunting &	
Trappin	ng7	4
22-2 P Fitness	²hysical 5	4
Append	dices	-
Append	dix A: CA REG 385-63 Table 1-1	5
Append	dix B: Command Letter of Certification. Example Format	6
Append	dix C: Courses of Fire required to be Laid in by Range Control	7
Append	dix D: Environmental Awareness	8
Abbrev	viations	2
		-

SUMMARY OF CHANGE

- Chapter 1-12 updated for changes to weather emergency plan siren activation
- Certification Memorandum updated to be more specific
- Certification Memorandum updated to allow Company Command level to authorize low risk training events without Class V

Chapter 1

General

1-1 Purpose and Implementation

a. Atterbury-Muscatatuck Regulation 385-63 is designed to provide units with safe range operating procedures. It applies to all units who use any range, training area, or Special Use Airspace areas, (R-3401A/B) at Atterbury-Muscatatuck Installation Maneuver Training Center (ATTERBURY-MUSCATATUCK). The proponent of this regulation is the Director Plans, Training, and Mobilization (DPTMS), Atterbury-Muscatatuck, Indiana.

b. This regulation is directive based and complies with applicable Department of the Army Regulations, current doctrine, policy, and guidance. In cases where this directive is, or may appear to be, more restrictive than current Army Regulations, this regulation will take precedence.

c. Special unit training requirements could often generate the need to request an exception to policy contained in this regulation. Unit requests for an exception to a stated policy should be submitted to the Range Branch, (NLT 30 working days) prior to the start of the training period.

d. Deviations from the range standards and procedures contained in DA Pam 385-63, or this regulation, will comply with the provisions of Chapter 3, AR 385-63 and the requirements of paragraph 1-5, DA Pam 385-63.

e. Prohibited training activities not previously approved by the Chief of Staff Army, (CSA) or the Commandant of the Marine Corps, (CMC), are the same as those listed in paragraph 2-5, AR 385-63, Range Safety.

f. Weapons training strategies and authorized courses of fire for all Army organizations or units will be IAW AR 350-4 and 350-41, as well as DA Pam 350-38, (STRAC).

g. AR 385-63/DA Pam 385-63 is also fully applicable to USMC units as MCO 3570.2A.

h. Interim changes to the basic AR or DA Pam 385-63 will be published as Army Range Safety Memorandums/Messages, (ARSMs). A file of all current ARSMs are maintained at Range Control.

1-2 References

- a. AR 385-63
- b. NGR 385-63
- c. DA PAM 385-63
- d. DA PAM 385-64
- e. AR 210-21
- f. DOD Directive 4715.11 dated May 10, 2004
- g. DOD Directive 4715.12
- h. Defense Transportation Regulation (DTR) 4500.9, Part III Mobility

i. FORSCOM/ARNG Regulation 55-1 Unit Movement Planning

All required and related publications are those covering the training conducted, and those listed in the applicable chapters of this regulation or other respective regulations, policies, and procedures. Additional references are also listed at Appendices A, of AR 385-63, NGR 385-63, and DA PAM 385-63 or (MCO 3570.2A).

1-3 Responsibilities

a. The safety of soldiers participating in any training event is a command responsibility.

b. Any using unit, person, organization, agency or club that willfully violates the requirements of this publication or of the requirements contained in AR 385-63, or any other regulation or document that applies to the firing or training event will be suspended from Training Center range usage. Violators are subject to punishment under the Uniform Code of Military Justice, (UCMJ), or applicable Indiana Statute(s).

c. AR 385-63, DA Pam 385-63, NGR 385-63, and this publication provide specific and detailed range firing responsibilities for using units. These directed and required actions are necessary for the safe conduct of all range firing and training. Full compliance with the requirements herein, is the responsibility of the commanders, as well as the personnel of using organizations or units. Personnel of any non-DOD civilian agency or activity, using Atterbury-Muscatatuck, must also comply with the provisions and requirements contained in this regulation.

d. The following individuals or functional elements, listed by title, job, or duty assignment, have the specific responsibilities as listed below, for the operation and safe use of ranges and training areas.

e. Training Center Commander

(1) Appoints qualified Range Officers and qualified assistants, as required, to effectively operate the range facilities and the Range Control office.

(2) Publishes and issues this regulation, applicable for all ranges, training areas and facilities, used on this Training Center.

(3) Establishes other DA level or MACOM directed controls required for reporting, or for specific or functional area "audit trail" monitoring procedures. All actions taken or directives issued will be specifically designed to provide for the safe operation of the Training Center's firing ranges and training facilities.

(4) Complies with the all requirements as listed in AR 385-63 and DA Pam 385-63, and NGR 385-63 Range Safety.

f. Training Center Operations Officer (DPTMS)

(1) Represents the Training Center Commander in all matters pertaining to the operation, scheduling, allocation, control and access of the ranges and training

areas, located at Atterbury-Muscatatuck.

(2) Is the Training Center Incident Control Officer.

g. Training Center Range Officer

(1) Represents the Training Center Commander in all matters pertaining to the conduct of safe range firing operations and training activities. He is specifically responsible for the enforcement of this regulation.

(2) Directs and supervises the Range Control operation to ensure safe and effective conduct of all operations on all ranges and training areas at Atterbury-Muscatatuck.

h. The Commander of Troops in Training (COTT)

(1) Is responsible for the safe and proper use of all scheduled and assigned training resources, allocated for training at the Training Center. The COTT is the commander of the major command, organization, or unit conducting training at Atterbury-Muscatatuck.

(2) Appoints and assigns a Troop Range Liaison Officer, (TRLO), when required, to assist the Range Control in coordinating daily unit range activities.

(3) Responsible for the safe conduct of all unit firing activities, also for the overall soldier safety of the organization or unit, while using a range or training area.

(4) Ensures that provisions of this regulation, as well as the requirements contained in AR 385-63, DA Pam 385-63, and NGR 385-63 are understood by all members of the organization or unit. The COTT will ensure that unit personnel adhere to the provisions and requirements contained within this directive.

i. Troop Range Liaison Officer (TRLO) (S3, Operations Officer or NCO)

(1) Represents the COTT in all matters pertaining to range firing and for the use and coordination of assigned training areas.

(2) Attends any Pre-AT or IDT coordination meetings, any daily AT training coordination meetings, and other meetings as required.

(3) The TRLO must be available to Range Control throughout the training period to coordinate range use and to facilitate the clearance actions of the organization or unit.

(4) Ensures that unit personnel do not train in any restricted areas.

(5) Inspects all firing ranges, training areas and training facilities for sanitation and cleanliness upon completion of the unit's training period. Arranges for the necessary range or training area police details, through the COTT, as required.

(6) Thoroughly understand and comply with the requirements of this regulation.

(7) Continuously updates the COTT concerning the ongoing coordination of planned unit training activities.

(8) Keeps Range Control informed of all convoy movements, range usage, conflicts in training, training area usage and other details of the scheduled training.

j. Unit Range Officer In Charge (OIC)

(1) Must meet the grade requirements contained in APPENDIX A, Table 1-1.

(2) Must be a current "Safety Certified" individual, IAW paragraph 1-4.

(3) Must receive an Atterbury-Muscatatuck Range Control Safety Briefing within the past year.

(4) The OIC and RSO will be present on the range or training area while the utilizing unit is in a HOT status.

(5) Coordinates all unit requirements to prepare the range for firing.

(6) Will not be assigned any additional duties when the range is in operation.

(7) Appoints qualified Range Safety Officer(s) (RSOs).

(8) Appoints Assistant Range Safety Officer(s) (ARSOs) as necessary.

(9) Verifies that the RSO is safety qualified and fully knowledgeable in the weapon systems involved, as well as all other required RSO duties.

(10) Ensures that the RSO attends the Range Control Safety Briefing, prior to the start of his duties.

(11) Ensures that all rounds fired on the range, are directed into the designated impact areas or are within the prescribed range safety limits.

(12) Ensures all unit personnel involved with the conduct of a live-fire range have been instructed in the safety procedures applicable to the training or exercise being conducted. He will ensure that unit personnel are briefed on all training details, including the training activities being conducted in the adjacent training areas, or on the ranges next to the unit.

(13) The OIC of the range will supervise and complete a range police call. The OIC will conduct a complete inspection of all personnel, weapons, vehicles and equipment to ensure all live ammunition remains on the range. The OIC is solely responsible for ensuring that no live or unaccounted for ammunition makes it off the range and/or back into cantonment area. The OIC will then coordinate with Range Control for the clearance of the range.

(14) Responsible for strict adherence to all safety regulations, as outlined in this and other respective regulations and publications.

(15) Arrange for range medical support, as outlined in paragraph 2-3b.

k. Unit Range Safety Officer (RSO)

- (1) Must meet the grade requirements contained in Appendix A, Table 1-1.
- (2) Must be a current "Safety Certified" individual, IAW paragraph 1-4.

(3) Must receive the Range Control Safety Briefing within the past year.

(4) He or she is fully qualified on the weapon system, is a direct representative of the OIC, and is responsible for ensuring a safe range operation, whenever the range is in a "hot" status.

(5) Is not assigned any additional duty while on the specific range, for which the individual has been designated, is in a "hot" firing status.

(6) Completes all safety briefings and safety checks, before the unit range OIC requests a "hot" range status for the range.

(7) Is thoroughly familiar with this regulation. He will have copies on hand of all applicable Field Manuals, (FMs); Technical Manuals, (TMs or "Dash" 10), Operator's Manuals; or any Technical Bulletins, (TBs), covering the operation of weapon systems being fired.

(8) Inspects all weapons that will be fired, to ensure a safe range operation, before the unit occupies the range.

(9) Properly positions range road guards, if required, and instructs them of their duties during the conduct of range firing. The RSO ensures that any required range gates or barricades are properly secured or are in place.

(10) Properly briefs each ARSO on duties and responsibilities.

(11) The Laser Range Safety Officer (LRSO) may also serve as the RSO.

I. Training Center Range Control Office

(1) The Range Control Office is staffed and operated to support each unit based on the requirements of a specific unit training schedule.

(2) Maintains the following information:

(a) Range Safety Cards & Overlays for all established ranges.

(b) Indirect Weapons Firing Data, safety cards, survey data and other required information that supports indirect range firing.

(c) Current and projected status of each live fire range, training area or facility, on a daily basis.

(d) Aerial weapons danger zones in effect, authorized helicopter LZs, "Restricted Zone Airspace" requirements or reservations, for the current day, as well as for the next scheduled training day.

(e) Current "Notice to Airman" (NOTAMs), Safety of Use Messages," (SOUMs), "Ammunition Information Notices," (AINs) and "Army Range Safety Memorandums/Messages," (ARSMs), which have been issued and are in effect.

(f) The locations of any "Off-Limits" areas, restricted areas, limited access areas, or any other "closed" area that would affect training.

(g) Maintains annual range and training area usage data as well as other

information required for annual input into databases, as well as for the next scheduled training day.

(3) Operates the Range Control radios and serves as Net Control station on the range firing net.

(4) Operates the range telephone system.

(5) Operates the Fire Desk and continually monitors all training activity for Safety and Control.

(6) Operates the Range Facility Management Support System (RFMSS) and ensures all required data is captured accurately and timely.

m. Laser Range Safety Officer

(1) Same responsibilities as RSO except must be certified on appropriate LASER system.

1-4 Guidelines for Safety Certification Programs

a. IAW DA Pam 385-63, commanders at battalion, squadron or equivalent level, will establish safety certification programs. These programs will train and qualify unit personnel to perform the required duties of an OIC, RSO or LRSO.

b. When the required safety and proficiency standards have been demonstrated through training, the individuals will be tested and certified as "qualified." US Army battalion, squadron and separate unit commanders must forward the required safety certification to Range Control. (Use the "Safety Certification Memorandum" format guide in Appendix B for this requirement). An officer at the 0-5 level or above must sign the Safety Certification Memorandum. Additionally, the Safety Certification Memorandum must have the responsible unit's UIC affixed to the memorandum. Separate units must obtain the unit OIC, RSO, or LRSO certifications from an 0-5 or an 0-4(P) in a 0-5 position at the next higher level of the unit's normal chain of command. Other Federal and non-Federal users will obtain safety certifications from similar authority in their own organizations. Range Control does not safety certify individuals, weapon systems, or training events.

c. An OIC, RSO (and LRSO, if applicable), are required for all firing ranges and training facilities. Only the OIC and RSO may sign for a given Range or Training Area. The OIC and RSO must have their names listed on the "Safety Certification Memorandum" for the utilizing unit. This memorandum may be valid for up to one year from the date of the memorandum.

d. Atterbury-Muscatatuck requires that all range OICs and RSOs attend an Atterbury-Muscatatuck Range Control Safety Briefing prior to the utilization of any range or training area. The Range Control Safety Brief is composed of a Range Safety Video followed by a multiple choice test. To be certified an OIC and RSO must pass with an 80%. Upon completion, Range OICs and RSOs will be issued a Range Control Safety Briefing Card which is valid for one year from

the date of issue. The Range Control Safety Brief will be available at the Atterbury Range Control facility or MUTC facility. Exceptions may only be granted by the Range Control Officer.

e. The Range Control Officer has the authority to revoke the certification of any OIC, RSO, or LRSO for violation of, or non-compliance with, any of the safety requirements listed in AR 385-63, DA Pam 385-63, and NGR 385-63 or this regulation. Range Control has the authority to require the re-certification of the member of any unit who allows an unsafe act to occur. Range Control may withdraw the current certification of a unit member, who demonstrates a lack of knowledge or the proficiency required for safe range operations.

1-5 Deliberate Risk Assessment Worksheet

a. A Deliberate Risk Assessment is required for all training activities. The risk level will determine who the appropriate signing authority will be.

b. Deliberate Risk Assessment (DRAW) is the Army's primary decision making process for identifying hazards and controlling risks across the full spectrum of Army missions, functions, operations, and activities. DRAW is a decision making process used to mitigate risks associated with all hazards that have the potential to injure or kill personnel, damage or destroy equipment, or otherwise impact mission effectiveness.

c. Make risk decisions at the appropriate level. As a decision making tool, DRAW is only effective when the information is passed to the appropriate level of command for decision. Commanders are required to establish and publish approval authority for decision making. This may be a separate policy, specifically addressed in regulatory guidance, or addressed in the commander's training guidance. Approval authority for risk decision making is usually based on guidance from higher HQ. Range Control accepts that low level residual risk may be accepted at Company Command 0-3 level. Moderate risk is accepted at Battalion Command 0-5 level. High risk must be accepted at Brigade 0-6 level.

d. IAW ATP 5-19, (Risk Management), One of the commander's responsibilities for DRAW is to ensure staff integrates risk management into the planning and execution of training and operational missions. Range Control requires a copy of a unit's Risk Management Worksheet when the unit is conducting maneuver live fire training, combined live fire training and Night Firing. Range Control may request a unit's Risk Management Worksheet for any training event.

e. Commanders have a directive-based requirement, IAW AR 200-1, to preserve and protect the environment. Commanders should consider the environmental risks that can result from the conduct of a training operation. Damage to the environment and the training land resources will not be tolerated. Negligent and careless acts by a unit which cause damage to the environment will result in the initiation of appropriate administrative or disciplinary actions as well as fines and damage repair costs.

1-6 Accident/Incident Reporting

a. <u>All accidents/incidents on ranges, training facilities, and training areas will be</u> <u>promptly reported to Range Control in accordance with appropriate regulations</u> <u>and directives. Range Control will direct or assist in accident/incident</u> <u>investigation and reporting. Submit an initial accident/incident report, as</u> <u>required, directly to Range Control. Additionally, AR 190-40, Serious Incident</u> <u>Report, format will be used when required</u>.

b. All specific guidance and requirements which may be contained in applicable TAG/MACOM safety or accident reporting regulations will be promptly accomplished by the reporting organization or unit. An information copy of any accident or incident report, submitted to a higher headquarters of the organization or unit, will be provided to Range Control.

c. Additionally Range Control will notify unit commanders concerned and (0-5) commanders will submit a written incident report through Range Control, to the Installation Commander with a copy furnished to the State Safety Office.

1-7 Requesting Ranges and Training Areas/Facilities

a. All training or range firing planned at Atterbury-Muscatatuck, which uses any Training Center training resource, must be requested and approved through the Scheduling Branch of DPTMS well in advance of planned use. Contact Scheduling Branch located at the customer service center for procedures and requirements.

b. All Muscatatuck training areas are scheduled through the MUTC Scheduling Branch.

c. Range Control can approve some unforeseen or last minute unit requirements, additions, or deletions to any planned or scheduled unit training.

d. The DPTMS Scheduling Branch will coordinate any "co-use" of ranges or training areas in accordance with co-use policy.

e. The senior S3, Operations NCO, or Range OIC or RSO of the using unit must attend a range and training area coordination briefing prior to drawing any training facility. This briefing is conducted by Range Control as necessary. Typically, this meeting takes place at 1400 hours local every Friday prior to scheduled weekend training and at 1000 hours local every Friday prior to the beginning of an annual training period. If deemed necessary, daily sync meetings will be held at 1400 for annual training units. Location of briefing is determined by size of audience. Check for location with Range Control. Units that do not attend will be suspended from training or placed into a check fire resulting in delayed or cancelled training.

1-8 Access to Ranges and Training Areas/Facilities

a. Atterbury-Muscatatuck has both exterior and interior gates. All gates are alpha/numeric labeled for key identification purposes. The exterior gates must

always remain in a locked or guarded condition. The interior gates are used to deny access to the high hazard common impact area and to other established range SDZs. Barricades are also used to control access to temporary high-risk areas. Violation of any locked gate or temporary range or road closure barricade is prohibited and will result in formal investigation of the incident. Call Range Control on any questions concerning the status or location of a barricade or a range SDZ gate.

b. Exterior Gate Use. All personnel requesting access through exterior gates will be required to follow the Atterbury-Muscatatuck Access Control Policy. Keys to exterior gates will be signed out through Range Control Physical Security Officer on DA 5513-R-E (KIRS) and must be returned upon completion of training event. All gate usage will be reported to the Range Control Fire Desk through radio/telephone to ensure safety and security.

c. Barricades are also used for temporary area closures, for traffic control at night fire ranges, or to support other night training operations. Units must sign for any barricades required for these purposes from Range Control.

d. Tracked vehicles will not be operated on any paved road, upon the mowed areas of any bivouac site, or on a direct fire range that is not pre-approved for mounted courses of fire.

e. Privately Owned Vehicles (POV) and U.S. Government Contracted Vehicles (GSA) are only authorized in range and training areas with the approval of Range Control. Utilizing units must acquire the appropriate vehicle pass from the Range Control Issue Desk. [ref. Range Control POV/NTV Policy] Utilizing units are only authorized 3 vehicles on a Range at a given time. This includes the designated MEDEVAC vehicle. All other vehicles must be parked in an approved parking area and have authorized access from Range Control to enter the Range and Training Areas.

(1) Contractors must receive permission from Range Control (BLDG 127) prior to traveling south of County Line Road. They will be issued a visitor pass which will be valid for one day only. This pass will only authorize them to travel to their worksite. This pass must be displayed in the front windshield of the vehicle.

f. Speed is radar controlled. Atterbury-Muscatatuck uses Military Police to enforce this policy. Speeds listed below are maximums and depend on common sense, weather, training conditions and events. Maximum speed limits unless otherwise posted are:

- (1) Paved roads: 25 MPH or as marked.
- (2) When passing troops: 10 MPH
- (3) Inside of FOBS/COLS: 10 MPH
- (4) Graveled Roads as posted or:
 - (a) Daylight hours: 25 MPH

- (b) Reduced Visibility: 15 MPH
- (c) Black-Out Drive: 10 MPH

Use common sense in dusty conditions- lower speeds and increase intervals.

g. Any use of the Atterbury-Muscatatuck road network for road marches, physical training or drivers training must be requested through Range Control. Any unit wishing to conduct training on the road network must submit a route overlay and risk assessment to Range Control.

h. Units conducting night operations may establish a Light Line, (or Lines), to separate an area for blackout driving conditions from the normal or the routine administrative night operations. Range Control will maintain the status and location of all Light Lines in effect. During extremely dry or dusty road conditions all vehicles should operate using the standard vehicle white driving lights where and when tactically possible.

i. During hours of darkness vehicles operating on any training area road will use standard white driving lights. When blackout driving operations are directed by the Commander of Troops in Training (COTT), only blackout driving or service (parking) lights will be used. Standard white driving lights and emergency flashers will be used by any vehicle involved in an emergency.

j. Night Vision Goggle (NVG) areas for driver training or routes for NVG operations must be coordinated with Range Control.

k. Range Control personnel will be granted immediate and unrestricted access to all unit locations, ranges, or training areas.

1-9 Use of Ranges and Training Areas/Facilities

a. The OIC and RSO must sign for each range and training area/facility used by the unit. The OIC and RSO are responsible for all unit activities conducted on the range and/or training areas that they have signed for. Responsibilities include safety, risk management, and all critical tasks listed on the Range Control Issue Form. Issue forms are available at Range Control.

b. Most Class IV materials are available through DOL. These materials should be forecasted in the scheduling process and must be coordinated prior to arriving for training. The unit representative is responsible for drawing, transporting, and returning any Class IV barrier, or other engineer materials, used in the training area. Units will not be cleared from training areas until Class IV materials are removed.

c. Unit bivouacs are prohibited on any established direct fire range area unless specifically approved by Range Control. The use of training areas for bivouac may be restricted based on availability of Range Control personnel.

d. Alcoholic beverages or controlled substances, or personnel under the influence of the aforementioned, are not permitted on any range or field training area.

e. To support resource management, periodic land maintenance activities, or for other environmental reasons, Atterbury-Muscatatuck may periodically close, or restrict access to, some training areas. The affected area will be posted as an "OFF LIMITS". Failure to observe posted areas may result in environmental and/or legal charges and fines.

f. Range Control or a designated representative will sign units onto ranges and training areas. During that time any deficiencies or damage will be annotated upon the issuance checklist. Units may request an occupation of the range or training area but must be signed onto the facility prior to going HOT.

g. Coordinate for the temporary blocking or unblocking of all roads and trails within an assigned training area at Range Control. These actions must be coordinated NLT 24 hours prior to the unit establishing a road block in any training area.

1-10 Clearance of Ranges or Training Areas

a. Range Control will inspect and clear each unit from an assigned range, training area, facility or bivouac site prior to the unit leaving the range or training area unless advised by range control personnel. Units will ensure that the following actions are accomplished:

(1) Unit personnel will conduct a thorough police call of the assigned area. All garbage, trash, or other debris will be removed from the area. Units will properly dispose of these items by transporting trash and debris to the post Solid Waste Transfer Station between the hours of 0800-1530. The Solid Waste Transfer Station is located in the cantonment area on the east side of the 200 block of Durbin Street.

(2) Before requesting clearance, the unit must fill in all ruts, excavations, fighting positions or mortar firing points. Do not use logs, trash or other solid waste as fill material, when restoring any excavations or emplacements in the unit training area. Failure to properly prepare the training area for clearance will cause the unit to be re-inspected before unit clearance will be granted by Range Control.

(3) Remove or disassemble any position barricades placed in a bivouac site, or on trails and roads in the training area. Restore assigned unit areas to a "near" original type condition, all training area routes and trails must be left open to traffic, before the responsible unit departs the area, or has been cleared from the training area.

(4) Ranges or training areas that have permanent latrines, units must clean, sweep, and remove all trash and debris from the building. Units are not to move Port-A-Johns without the prior approval of DOL. Units must ensure Port-A-Johns are free of debris and trash.

(5) Remove all types of tactical communications wire within each assigned training area.

(6) Retain a unit work detail, during area inspections and clearance actions, sufficient in size and with the necessary items of equipment that will be required to accomplish unit training area clearance actions.

(7) Units must submit a completed Facility Usage Form for their assigned Range or Training Area as soon as possible or NLT 2300 hours daily. In addition, Utilizing Units must submit a strength report daily NLT 2300 hours.

1-11 Communications

a. Communications Requirements:

(1) A primary and backup means of communication are required to operate live fire ranges at Atterbury-Muscatatuck. Units will receive a handheld UHF or VHF radio from Range Control when they sign for their range. This radio is to be used as the primary means of communication on the Range Control Net. Handheld radios are for communication with Range Control only; they are not for your internal use.

(2) There are several options for backup communications. Units may use their TOE assigned radio (SINCGARS or HARRIS) on single channel, non-hopping, non-encrypted mode, squelch off. The Range Control FM frequency is 38.90. SINGARS radios cannot be in the towers on automated ranges. They can interfere with radio communications to the targets.

(3) Most of the direct fire ranges have a telephone installed in or near the control tower on the range. The four digit telephone number of each range is "**27**" and the range number. For example: **2714** is the four digit extension for Range 14. Range Control's phone number is **1351**. Range telephones are restricted to on post calling only.

(4) Cell phones may be used as a means of back-up communication when coordinated with Range Control. If a cell phone is used the number must be listed on the issue form.

b. Units must request training frequencies to be used on the Installation from the Atterbury-Muscatatuck Military Frequency Manager (DOIM) located at BLDG 7 prior to their arrival at Atterbury-Muscatatuck. All frequencies used on Atterbury-Muscatatuck are licensed for use in this area.

c. Range Control's call sign is "Atterbury or Muscatatuck (if operating at MUTC) Range Control". Training units will identify themselves as the range, facility, or training area they are signed for. For example, "Atterbury Range Control this is Range 14, radio check, over."

d. It is your responsibility to establish and maintain good communications with Range Control. You must cease fire when communications are lost and immediately seek to re-establish communications prior to returning to a 'HOT' status.

e. All communications with Range Control are recorded for historical archive.

Always use proper radio and telephone procedures.

f. Training Areas and Non-firing ranges. All using units will:

(1) Establish and maintain a positive radio communication with Range Control.

(2) Continuously monitor the Range Control Net to be aware of an adverse weather condition or medical emergency.

(3) Radio checks on the primary means of communication are required at the bottom of each hour (ie 1030, 1130, 1230) when in a "hot" or "occupied training" status, unless otherwise directed by Range Control.

g. Live Fire Ranges. All using units will:

(1) Contact Range Control when occupying the range. A Range Control member and using unit OIC/RSO will inspect the assigned ranges or training areas for any litter, rut damage, or abnormalities upon occupation. If nothing is annotated upon the facility issuance checklist, the unit will assume responsibility for any damage or litter that is found upon clearance.

(2) Units must request and receive permission from the Range Control Fire Desk prior to entering a HOT or COLD status. Additionally, units must notify Range Control prior to changing courses of fire or weapon system.

(3) Monitor the Range Control radio frequency when in a "hot" firing status.

(4) Perform hourly communication checks at the bottom of the hour, when the range is in a "hot" status

(5) Immediately Cease Fire on the range when, or if, communication with Range Control is interrupted or lost. Communication with Range Control must be re-established prior to continuing with training.

h. Observation Posts (OP). Using units will:

(1) Request permission from Range Control to open the OP prior to the FP going "hot".

(2) Continuously monitor the Range Control radio frequency while the "observed for" unit is in a "hot" firing status and perform hourly radio checks.

(3) Call in first round observed safe.

1-12 Weather

a. Thunderstorms with lightening are the most common weather problem in this area. Commanders should have a severe weather reaction plan for troop protection. Range Control monitors severe weather advisories through a dedicated (National Oceanographic and Aeronautical Administration (NOAA) receiver. In the event of known impending severe weather, Range Control will broadcast information on all Range Control operated or monitored nets. Camp Atterbury has a severe weather emergency notification siren to warn of impending severe weather. This siren is located near DPW and can be heard if you are within a 1 mile radius. A severe weather procedure handout is available at Range Control. Contact Atterbury-Muscatatuck Range Control or Grizzly Ops (MUTC) for emergency weather information and procedures.

b. Units must take weather into consideration in Deliberate Risk Management when planning training events. Shelters are available for inclement weather. Range Control will also broadcast periodic heat index or "WET BULB" readings, on the Range Control Net. These advisories are broadcasted at the top of each hour when the recorded "WET BULB" readings received from the Installation Operations Center are higher than a reading of 80. Additional advisories will also be broadcasted each half-hour, when the hourly readings reach a level of 88 or higher. The unit must enforce water consumption under required conditions, to prevent causalities or loss of combat power.

Chapter 2

Ranges and Training Areas/Facilities

2-1 Restricting Access to Impact Areas

a. All personnel are prohibited from entering into the posted Dudded Impact Area, any range firing area that are identified by "Danger - Range Firing in Progress" signs, or areas closed by any interior range gates or barricades.

b. The Range Control Officer may approve the temporary entry into any of the above areas to military personnel only. Access may be granted for a special and temporary training need or for target maintenance requirements. Personnel approved temporary access into the Dudded Impact Area must wear appropriate personal protective equipment (PPE) specified by the Range Control Officer. Military personnel must be accompanied by Range Control or qualified EOD personnel. Civilians are never permitted access into the posted Dudded Impact Area.

c. All personnel, military or civilian, will be specifically briefed on the danger and potential for encountering unexploded ordinance (UXO) material anywhere on the installation. Any UXO (dud) that is discovered will be promptly reported to Range Control and visibly marked. All personnel will be instructed not to touch or handle any UXO encountered. <u>Under NO circumstances</u> will any UXO be removed from a range or training area.

d. All vendor personnel, such as food vendor activities, must have permission from Range Control prior to traveling into the range and training area. Their access will be controlled by range control and their activities will only be allowed when it does not interfere with utilizing unit activities. Vendor's privileges to service any unit utilizing Atterbury-Muscatatuck's range or training areas will be subject to the Range Control OIC approval. Refusal to abide by the instruction of any Atterbury-Muscatatuck governing official or unit commanding official may result in suspension or termination of access to Atterbury-Muscatatuck.

2-2 Warning Signs and Barricades

a. Warning signs, range gates, and barricades are erected to ensure that personnel do not enter a range's surface danger zone (SDZ). Barricades will remain in place while any range firing is in progress. Commanders will take necessary corrective and disciplinary actions whenever unit personnel violate an established range barricade.

b. Units will prominently display copies of daily range firing notices in the unit area during all training periods. Units will ensure that all assigned, attached, supporting or visiting personnel have been made aware of the range firing schedule. Range Control also maintains the status and displays the scheduled and planned daily range firing, by range and unit, listing the firing scheduled for the day. Range live firing will dictate which areas must be closed, as well as which ranges or training areas will have restricted or limited access.

c. Any violation of a barricade or a fixed range gate requires the following actions:

(1) The affected range and/or training area, is placed in a "Cease Fire" status.

(2) Range Control personnel will physically check and survey the affected area. Range Control will attempt to identify any individuals who might have caused the violation. Statements will be obtained describing the details of the incident.

(3) Range control will notify unit commanders concerned and (0-5) commanders will submit a written incident report through Range Control, to the Installation Commander with a copy furnished to the State Safety Office. Range Control is authorized to establish additional range barricades or guard posts, as required.

(4) Range Control may lift the imposed Cease Fire after the receipt of the required incident report. The unit commander must provide a written statement that no personnel are within the violated "off limits" area.

d. Each RSO will post and properly brief all required interior range guards for assigned range or firing point for the unit.

e. During any range firing activity a red range flag must be displayed from the range flag pole or the assigned indirect fire observation post flag pole. If a flagpole is not present, or not operational, the range flag will be displayed on or at a clearly visible point near the entrance to the range, observation post, or firing point.

f. A red flashing or rotating light is required when firing is conducted during the hours of darkness. These lights are on the ranges or are available at Range Control.

2-3 Live Fire Range Usage

a. Several specific items pertaining to the use of a range or training facility must be coordinated or accomplished before the unit arrives. These requirements apply to ALL live fire range use. As a minimum, the following must be accomplished prior to the use of a live fire range:

(1) Unit requests the range IAW paragraph 1-7.

(2) The required individuals have been appointed and certified for safe unit range operations. Paragraphs 1-3 and 1-4 define the responsibilities of appointed personnel and the guidelines for the proper certification of individuals.

(3) All appropriate personnel have received the required Atterbury-Muscatatuck Range Safety Briefing and have a valid Range Safety Briefing Card.

(4) A unit representative checks and coordinates with Range Control prior to occupation of any assigned range. This ensures that no schedule changes have had to be made to the scheduled range or the planned range firing times. Range Control will provide the Range OIC with the range operational requirements and other information needed to properly operate the range. Materials required for range operation can be hand receipted from Range Control by the unit range OIC at this time. Range Control will provide necessary targets but the unit must supply other necessary materials required for range operations such as staplers, FMs and TMs.

(5) Upon arrival at the range, the unit will establish positive 2-way communications with Range Control and complete the communication requirements detailed in paragraph 1-11 of this regulation.

b. Units will comply with the following range or training area medical support requirements:

(1) For any demo, explosives, weapons firing explosive rounds, indirect weapon systems, M2, MK-19, all anti-tank rocket firings, or any live fire maneuver range, using units will provide the following medical support:

(a) A trained medical aid person, MOS qualified (68 W or equivalent), or currently certified EMT. This individual will be equipped with a complete medical aid bag, containing all required CL VIII items with a valid expiration date.

(b) An FLA or ambulance, that is properly equipped and has a current PMCS, must be present on the range or training area at any time the range or training area is in a "HOT" status. If an FLA or ambulance is not available a dedicated medical evacuation vehicle that is capable of transporting a litter, properly equipped, and has a current PMCS may be used with the approval of the Range Control OIC. Medical aid personnel assigned to these ranges, along with the supporting medical vehicle, will not be used for any other duty. The evacuation vehicle at the rappel tower must also be equipped with backboard and neckbrace. Medical Evacuation Vehicles will be at a minimum ³/₄ full of fuel.

(2) All other range use and unit field training activities require a dedicated medical evacuation vehicle at the range or training facility. Any additional medical support requirements should be addressed in the Risk Assessment of the training unit commander.

(3) Whenever the dedicated medical aid person or vehicle must leave the area for any reason the range must Cease Fire and remain in an "ADMIN COLD" status until a replacement is provided, or until the assigned vehicle and medical personnel have returned to the range. Range Control will then place the range in a "HOT" status.

c. The unit range OIC and RSO will ensure that all required range safety measures and procedures are followed.

(1) If an unsafe condition or aircraft over the impact area is observed on a range or firing point, the person observing the condition will immediately command "CEASE FIRE!" The OIC will report the incident to Range Control. The range or firing point may resume firing activity only when Range Control lifts the cease fire.

d. When range firing has been completed, the OIC will request a "COLD" status from Range Control and report the number of personnel trained and the amount of ammunition fired along with the correct DODIC. The Range Utilization report is required to be completed and turned in to Range Control as soon as possible, NLT 2230 hours.

f. The using unit will then complete a range police call and conduct a "shakedown" inspection for ammunition of all personnel on the range. The OIC will then coordinate with Range Control for the clearance of the range.

g. The unit representative will depart the range or firing point only after the unit has been cleared by Range Control.

h. There are numerous designated helicopter landing pads located throughout this Training Center. A listing, by grid coordinate, is published in CA Reg. 95-1. Range Control also maintains a current listing of all active helicopter pads or LZs. These pads or LZs are "off limits" to vehicular traffic. Medical support personnel must know the location of the pads or LZs which are the closest to the range or firing point for which they are providing unit medical support.

i. Fires that occur on a firing range will be reported to Range Control. Unit personnel WILL NOT enter any range firing SDZ, or the Training Center Dudded Impact Area to suppress or fight a fire without the specific approval of Range Control. A fire in the grassy area near a target bunker of an automated "Pop-Up" type range will be reported to Range Control. This situation requires the unit Range OIC to monitor the range fire and be prepared to take fire suppression actions when Range Control directs. Damage by fire to installed target mechanisms must be avoided. Units are not authorized to leave a range until the fire is extinguished.

2-4 Training Areas/Facilities, Non-Firing Ranges and Training Area Roads

a. The Training Center is divided into separate training areas that must be properly scheduled and issued prior to occupation or use. All training facilities and non-firing ranges must also be properly scheduled and issued. Training facilities that lie within training areas (indirect fire points, NBC chambers, drop zones, observation points, etc.) must be scheduled and issued separately from the respective training area.

b. Units will coordinate with Range Control prior to the occupation of any nonfiring range or training facilities. The range OIC and RSO must read and sign the Range Issuance Form for the range, training area, or facility for which they are scheduled for. Additionally they will receive any special or required information that pertains to the use of the training facility

c. The following training facilities require medical support personnel as identified in paragraph 2-3b(1) (a and b) and an ambulance w/litter and splints on site when conducting training.

- (1) Rappel Towers
- (2) Obstacle Course
- (3) LRC
- (4) Confidence Course
- (5) Gas Chambers (splints not required)
- (6) Drop zones when conducting personnel drops

d. It is required unless otherwise directed by Range Control that all training areas and facilities maintain regular radio contact with Range Control and has the highest level of medical support available on site. However, these ranges or training sites must have, on site, a radio communication capability with Range Control. Medical support personnel, when assigned to a non-firing range or training site, must have the capability to establish a radio communication link with Range Control. Consult with Range Control about any site specific range procedures or other requirements for a range or training site.

e. Fires in the training areas are the responsibility of the unit assigned to that area. The using unit must promptly extinguish any fire in a training area. Report all training area fires to Range Control. Request firefighting assistance through Range Control. The burning of trash in heating barrels is not authorized. Units are not authorized to leave training areas until fire is extinguished.

2-5 Range Use by Non-Military/Civilian Agencies

a. The use of a range or training area by a civilian agency is authorized.

(1) Instructions and the necessary forms for requesting the use of a range, training area, or a training facility is found in CA Pam 210-11, Non-Federal User's Guide. Further information and requirements (liability waivers, leasing costs,

incremental operating costs, insurance requirements, or other funding requirements, etc.) are available from Scheduling Branch, DPTMS-S, Building #127. These need to be completed and turned into Range Control prior to operating ranges.

(2) For safe range operation each using civilian agency must appoint, in writing, an OIC and a RSO. This appointment announcement or order must specify that each individual so designated is safety certified for the specific weapons system to be fired or to properly conduct the training activity that is planned.

(3) The satisfactory completion of a National Rifle Association (NRA) Instructor Course, equivalent certification or certification through the appropriate law enforcement agency is required for any individual who will act as an OIC or RSO on a civilian run live fire range. Course completion certificates will be as an attachment to the civilian agency appointment list of the agency's Range OICs and RSOs.

b. Civilian visits and access to ranges and training areas must have the prior approval of Range Control. This authorization action must be accomplished prior to the civilian personnel entering a field training area or visit a firing range.

(1) All visiting civilian personnel will remain in a designated safe observation area that is determined by Range Control and the respective Range OIC/RSO.

(2) Civilians, to include military family members (MFMs), or DOD civilians, must have the prior approval of Range Control to fire a military weapon.

(3) ALL civilian personnel will wear hearing and eye protection whenever an individual is visiting or observing any type of live range firing activity.

2-6 Accidental, negligent, or willful damage to Installation property

Damage to any Installation property must be promptly reported to Atterbury-Muscatatuck Range Control. Reporting damage immediately allows for the proper repair and administrative actions to be completed and prevents delays in training. Failure to report damages could cause follow on injuries, delays in training, and may result in other administrative or punitive actions. Units have a responsibility to report any damage observed in the range and training area even if they are not the responsible party. Violating units will utilize Serious Incident Report format to report any serious incident or damage.

Chapter 3

Ammunition

3-1 Positioning and Issuing Training Ammunition and Explosives

a. All training ammunition, pyrotechnic items or explosive material will be handled and stored IAW Chapter 2, DA Pam 385-64 and FM 9-13. Issuing and accounting for all training ammunition and explosive items will be IAW Chapter

11, DA Pam 710-2-1. Contact the Training Center Ammunition Supply Office for specific procedures for requesting, drawing, and turning in any ammunition and/or residue.

b. Using units are responsible for the physical security, safeguarding, storing, and handling while ensuring the ammunition or explosive items are protected from the weather.

c. Using units will perform the following ammunition or explosive storage actions any time ammunition or explosive items are stored on a range, at a firing point, or at any field storage location. All live or blank ammunition and explosive items; will

(1) be placed on pallets or dunnage.

(2) be positioned in a dry or well drained area.

(3) be covered by tarpaulins for protection from sparks, direct sunlight, rain or other weather effects.

(4) have on hand the proper type and required number of functional fire extinguishers, located at the site.

(5) not be located within 100 meters of the Training Center boundary.

(6) have proper hazard class and division and number of warning placards and or Fire symbol signs displayed.

(7) have "No smoking" signs prominently posted.

(8) have storage site access controlled, guarded, and secured.

(9) be segregated and clearly identified as to type. This requirement specifically applies to blank ammunition simulators and pyrotechnic items.

d. Some ranges and firing points have ammunition issue and breakdown buildings or covered ammo shelters on the range. These buildings or shelters will be used when available and will not to be used for any other purpose. Use of this type of building is restricted to using unit range ammunition "breakdown", troop range firing issues, and required unit ammunition component recovery.

e. Limit the unpacking of all ammunition items at a range or firing point to the minimum number of rounds needed for efficient firing of the exercise.

f. Vehicles transporting ammunition move directly to the range or field ammunition supply point. They will not stop at any location in the cantonment area for any reason.

g. Temporary or short term storage of unit training ammunition, pyrotechnic or explosive items is permitted only on a range or in field training area assigned to the unit. Ammunition, pyrotechnic, or explosive items are never stored within the cantonment area.

h. All ammunition, explosive or pyrotechnic items must be transported in

compliance with 49 Code of Federal Regulations (49 CFR), HAZMAT Transport Regulations; Part 172, Subpart H, FORSCOM/ARNG Regulation 55-1 and AR 55-355, and DD Form 626 Vehicle Inspection. The overall requirements of TC 21-305-100 will also be followed:

(1) All personnel transporting any ammunition, explosive or pyrotechnic items must have satisfactorily completed a Hazardous Material Transportation Course and have a valid military driver's license with a Hazardous Material Endorsement in their possession.

(2) All vehicles will have the proper type and numbers of identifying placards prominently displayed whenever a vehicle is used to transport ammunition, explosive, or pyrotechnic items. All placards or signs will immediately be removed from an empty ammunition vehicle.

i. Per the YellowBook, Missiles (i.e. AT-4, SMAW, TOW, Javelin) live grenades and mines must be fired on the day that they are drawn from the ASP. Unused ordnances must be turned in the same day that they are drawn. Contact the ASP for specific turn-in policies.

3-2 Qualifications and Restrictions on Ammunition and Explosive Use

a. All personnel conducting ammunition or demolition training must be familiar with all current and applicable directives or regulations containing the "type-specific" requirements for the type ordnance items to be used.

b. All pyrotechnic items, explosives, and ammunition will be handled and or used by qualified personnel only and in full and strict accordance with applicable safety publications.

c. Do not use for a training aid, or for a classroom type of instructional presentation, any live ammunition or ordinance that contains explosives or propellants.

d. Only approved standard ammunition items may be used on the Training Center except as described in AR 385-63.

3–3 Nonstandard ammunition and explosive items

a. The training ammunition accountability and control procedures prescribed and detailed in Chapter 11, DA Pam 710-2-1 will be strictly complied with by all using organizations or units.

b. The use of nonstandard ammunition or explosives is prohibited unless authorized by the Adjutant General in accordance with AR 385-63 Ch. 2-3 b (1).

3-4 Suspension of Ammunition and Explosives Involved in Malfunctions

Range Control, or the unit Range OIC or RSO, may suspend the use or firing of any lot of ammunition, explosive item or any of their components, which malfunctions in any manner. Any further use of any such malfunctioning items could result in injury to personnel or physical damage to property and material. The Training Center Ammunition Officer will substantiate, or withdraw any such suspension that may have been imposed by a unit Range OIC or RSO. NO suspended lots of ammunition or explosive items will be used in any type of training activity. All ammunition malfunctions will be promptly reported to Range Control for necessary investigation and reporting. Range Control will notify Ammunition Supply Point as soon as possible IAW the provisions of AR 75-1. The using unit must fill out an **AMMO MALFUNCTION REPORT.**

3-5 Unexploded Ordnance, Misfire Procedures and Reporting of "Duds"

a. Misfire procedures

(1) Clear any misfires after taking the proper immediate individual or crew actions required IAW applicable publications (FM or TM). Notify Range Control if the misfire procedures taken do not clear the weapon. Range Control will notify armor support. <u>Place the weapon, facing downrange on the firing point or leave weapon system mounted on vehicle facing downrange. Do not move loaded, malfunctioning weapon from the firing line or vehicle. Safeguard firing point until armor support arrives. If on a Live Fire Maneuver Range take instructions from the Range Manager.</u>

(2) Restore any misfired rounds to an unarmed or "safe" condition by resetting the fuse and reinstalling any safeties applicable for the round. (Rounds unable to be made safe: see #5)

(3) Place the misfired round into the original shipping container and label the container as a misfired round.

(4) If the round cannot be made safe or disarmed, establish a "dud" pit (normally 50 feet in front of the firing line in a defilade) ensure there are proper markings to identify the dud pit. It is the unit's responsibility to transport the dud or secure it until the arrival of EOD.

(5) Immediately report to Range Control, the type and nomenclature of the misfired rounds, the location of the rounds, as well as the name, unit, and telephone number of the individual who has knowledge of the circumstances of the misfire.

b. Unexploded ordnance (UXO)

(1) Do NOT touch or disturb any UXO encountered. Leave any UXO discovered in place, including all rounds observed as falling into or within the designated range impact area but which fail to function (detonate). All rounds that fall into the Dudded Impact Area, but fail to detonate will be reported to Range Control immediately. (See also GTA 9-12-1, UXO Procedures).

(2) If a round, a suspicious item of ordinance, or an UXO item is found outside a designated range firing impact area do not disturb the item. Conspicuously mark the item, route traffic a safe distance around, and record the location, and report this information to Range Control. This report must include the following information: (a) Type, nomenclature, and caliber or size (if known), of the items.

(b) Location, by at least an eight digit grid coordinate, along with any descriptions of the physical terrain or location which might help to positively locate the suspected UXO. A map overlay with the location of the items will be submitted to Range Control upon request.

(c) Name, rank, and unit of the individual reporting the UXO.

3-6 Police of Ammunition

a. All ammunition items and recoverable components will be returned to the Training Center ASP IAW DA Pam 710-2-2, Appendix L.

b. All munitions and pyrotechnic components will be sorted and segregated by type.

c. Unserviceable (damaged/misfires in safe mode) ammunition will be kept separate from serviceable ammunition prior to turn-in.

d. Ammunition component packaging by-products, such as canisters from the containers of an expended handheld flare, etc., will be returned to the ASP.

e. Usable and unfired munitions or pyrotechnic items will be returned to the Training Center ASP. These items will not be intermixed with any misfired items. See paragraph 3-4 for "Misfire" procedures.

f. Returned munitions and pyrotechnic items will also not be inter-mixed with the recoverable debris from any other ammunition components.

g. Blank ammunition will be policed up on roads

3-7 Ammunition and Explosives (A&E) Amnesty Program

a. A&E amnesty is a Unit Command responsibility. Unit Commanders have the responsibility to inform all soldiers of the amnesty program. Commanders must establish an atmosphere that does not intimidate the soldier or prevent the soldier from freely turning in A&E.

b. The Atterbury-Muscatatuck A&E Amnesty Program is implemented by local regulations in accordance with DA Pam 710–2–1 and AR 710-2. It is established to prevent the removal of ammunition from military control into the public hands and ensures maximum recovery of military A&E. This program is for Department of the Army purchased A&E only and is not intended to circumvent normal turn-in procedures.

c. The A&E Amnesty Program provides a SAFE opportunity for individuals to return A&E that is found, stolen, or misplaced without fear of prosecution. A&E amnesty turn-ins will not be the basis for the initiation of an investigation or prosecution. They are also exempt from AR 190-series investigation requirements. This program does not, however, prevent investigations or prosecutions based on other evidence.

d. The Atterbury-Muscatatuck Ammunition Supply Point, will accept ammunition turned in under the provisions of the amnesty program. Individuals turning in A&E under the amnesty program are not required to have a turn-in document and are exempt from the 24 hour advance turn-in notification to the ASP.

e. All found A&E, excluding small arms ammunition up to and including .50 caliber, will be considered hazardous and will not be moved by untrained personnel. All ammunition turned in under the provisions of this program must be rendered safe prior to turn-in.

f. Atterbury-Muscatatuck ASP cannot accept commercial A&E. These items must be referred to local, county or State Police. These organizations have the capability to handle these items.

g. A&E amnesty turn-ins at the ASP will be accepted 0730-1600. For afterhours support, please contact the Installation Operations Center at ext 61310.

h. Atterbury-Muscatatuck has an amnesty box located outside the Ammunition Supply Point (BLDG 2033). The box located at the ASP is for munitions rated .50 Cal and below. Any ammunition placed in these boxes must be rendered safe for turn-in.

i. Off post incidents will be handled by local, county, or State Police. The military responds to off post incidents only at the request of civilian authorities or military police.

j. Questions pertaining to the Atterbury-Muscatatuck A&E Amnesty Program will be referred to the Atterbury-Muscatatuck Ammunition Supply Point at 812-526-1129/1130.

Chapter 4

Range Firing

4-1 Firing

a. Using organizations or units conducting training at this Training Center will conduct all weapons firing activities or demolition exercises IAW current Department of the Army (DA) doctrine, regulations, or applicable publications. A Range Operations Checklist is available at Range Control for range firing planning.

b. The commanders of using units and the unit Range OICs and RSOs will ensure that all unit personnel are fully briefed on all range firing safety issues and procedures. All unit personnel must wear any required protective gear, to include hearing protection, when on a firing line or firing point.

c. All military personnel must wear the Kevlar helmet, when required by

regulation, FM, safety directives, or by the unit SOP. When not specifically required, the wearing of the helmet is left to the discretion of the unit commander based upon Risk Assessment.

d. All personnel using a range firing line or firing point are required to wear hearing protection and eye protection when any range firing is being conducted.

e. The range OIC/RSO will caution all personnel of the potential hazards that could occur from a misfire, hang fire, or from a "cook-off" of a round in an overheated weapons chamber.

f. All personnel must receive a unit safety briefing that covers in detail the proper misfire procedures and the actions required to be taken for the weapon being fired.

g. If unit firing requires the use of road guards, they must be briefed regarding their responsibilities and safety. They must also be provided a source of communication with the utilizing unit's command and control element.

h. The RSO will thoroughly inspect all unit personnel and weapons immediately after the completion of the unit range firing activity. Range OICs and RSOs will ensure that unit personnel retain no live, blank, or Pyrotechnic munitions.

i. The unit Range OIC is responsible for the accountability of all training ammunition components IAW the provisions of Chapter 11, DA Pam 710-10-2 (Supply Update).

j. Periodically, some weapons system firing activities or explosive demolition firings may be subjected to special environmental "impulse noise" monitoring actions. Whenever such special actions are required, Range Control will advise each affected unit.

k. Fire hazard levels may suspend the use of certain types of ammunition or pyrotechnics.

I. Units will not bury ammunition or residue, indiscriminately fire ammunition, or otherwise conduct any range firing activities, to include the initiation of demolition charges, in order to avoid a "return to storage" supply action. Units will properly turn in all unexpended ammunition components. Units that discover ammunition, blanks, pyrotechnics, or unexploded demolition materials when using ATTERBURY-MUSCATATUCK ranges will notify Range Control immediately for proper actions to take.

m. Ranges without established parking areas (graveled lot) are restricted to three vehicles on the range. Command & control vehicle, Communications vehicle, and dedicated Medical Evacuation vehicle. Ranges with established parking will not be over filled and the Medical Evacuation Vehicle will have unrestricted route access to and from the range at all times.

4-2 Night Firing Activities

a. No night firing activities on direct fire ranges are permitted until Range Control briefs the Range OIC/RSO on night fire procedures on that range and checks the range immediately prior to beginning night firing. Units must specify that they will conduct night fire while scheduling their range.

b. The direct fire range conducting firing during the hours of limited visibility will be placed in a "cold" status at the conclusion of the day firing and must request to be placed into a "hot" status prior to commencing night fire training. Units requiring target modification for night fire must take into account that chemlights or thermal blankets must be requested in advance. The unit training plan should allow for a 2 hour shut down period between day and night firing exercises.

c. The completion of an updated Deliberate Risk Assessment is required prior to any unit firing on a direct fire range under limited visibility.

4-3 Accident and Incident Reporting

a. Any individual on a range or at a firing point may declare a "CEASE FIRE," if he observes an unsafe act. The unit Range OIC or RSO will take any necessary and immediate corrective action to eliminate unsafe conditions.

b. Units must fire all rounds within the designated range safety limits of the range. OICs/RSOs must ensure the effects of firing impact within the specified impact area for the range or firing point. If any round lands, or is believed to have landed outside the designated range firing limits, the Range OIC/RSO, or any other person, will immediately place the range or unit in a "CEASE FIRE" or "CHECK FIRE-FREEZE" status.

c. When a Cease Fire command has been initiated by anyone on a range for a suspected unsafe condition, a report of the incident will be made to Range Control utilizing SIR format. The report will document and explain the details of the incident that led to the Cease Fire. The Battalion, Squadron, or Unit Commander submits this report to Range Control, copy furnished to Atterbury-Muscatatuck Safety Office. A range involved in a Cease Fire may not resume live fire operations without the specific approval of Range Control.

4-4 Special Firing Restrictions

Certain weapon systems or ammunitions are required to be emplaced by Range Control when fired on specific ranges. This constraint is imposed due to the SDZs created when the weapon system is fired on these specific ranges. See Appendix C for a description. These ranges will not be authorized to enter a "HOT" firing status until Range Control has completed laying in each weapon system. See Appendix C for list of these ranges.

Chapter 5

Targets and Training Aids

5-1 General Requirements for Range Targets/Target Mechanism Support

a. Standard target types used on this Training Center conform to the type of target systems as described in TC 25-8 (Training Ranges), or in TM 9-6920-210-14&P (Small Arms Targets and Target Materials). Range control maintains inventories of targets to support standard courses of fire.

b. All distribution and return of targets, target accessories, or range materials is coordinated through Range Control or RTLP Maintenance (Bldg 121).

c. Unit requests for non-standard expendable targets, supplies, or other special target requirements must be coordinated with RTLP Maintenance, NLT 120 days in advance of training dates.

5-2 Targets on Non-automated Direct Fire Ranges

a. All non-automated direct fire ranges at this installation support standard courses of fire in one of the following ways:

(1) Firing at targets on wooden frames that are placed in sleeves in the ground at known distances from a firing line. (Example; 10, 25, 50 meters).

(2) Firing from elevated firing berms at known distances from target lines. (Example; known distance ranges 100-500 yards).

(3) Firing from a firing line or prepared fighting position at area or point targets placed at known or unknown distances in the common impact area.

b. Locally fabricated target frames and standard paper targets for small arms and crew served weapons firing are stored in target sheds on each small arms range or in a nearby storage shed.

c. Hard targets consist of demilitarized army equipment placed into the common impact area.

d. Using Units are responsible for blank score cards when required for recording scores and firing results.

5-3 Targets on Automated Direct Fire Ranges

a. Automated ranges are computer controlled and scored. They can be hardwired or battery powered. Communication with the targets is by data-wire or radio. Automated direct fire ranges can have a variety of automated target mechanism types. Stationary Infantry (SIT), Moving Infantry (MIT), Stationary Armor (SAT), or Moving Armor (AMTC). Do not use SINGARS radios in the towers of automated ranges as they may interfere with the operation of the target mechanisms on automated ranges.

b. Each target lifter on these ranges has the standard "E", "F", or "3D", type targets installed. Some target lifting mechanisms have Night Muzzle Flash

Simulators installed for night fire use. Armor moving (AMTC), and stationary (SAT), lifting mechanisms use '3D' type targets that may be fitted with thermal blankets, hostile fire simulators, or target kill simulators.

c. Due to time constraints or adjacent range activities, target lifters will normally not be replaced or changed out between firing order rotations

5-4 Targets on Temporary or Portable Direct Fire Ranges

a. A variety of remote controlled target systems are available for use on temporary or portable ranges. All target control systems are portable and battery powered. They can support either MILES or live fire range training. Prior coordination with RTLP Maintenance is required for use of any of these items. Limited types of law enforcement targets are also available. Radio controlled Hostile Fire Simulators and Artillery and Mortar Fire Simulators are available.

b. Using units are responsible for range set up, routine maintenance, cleanup and return of all target mechanisms and materials on temporary or portable ranges. Charges for damages to a target system or accessories resulting from improper shielding or by negligent actions could be levied against a unit.

c. Range Control or RTLP Maintenance personnel will provide guidance, or assist in the training of using unit range personnel, for the proper protection, operation, service and maintenance of any target devices that are on hand receipt loan to the unit.

5-5 Targets for Indirect Fire Ranges

a. The Training Center's Dudded Impact Area is established to support unit specific METL indirect firing tasks. This impact area is a "high hazard risk" area and is considered to be permanently contaminated and OFF LIMITS to all personnel.

b. Many types of vehicle targets have been pre-positioned within the common impact area. Some are placed as individual targets and some as cluster targets. Many are unrecognizable as vehicles due to indirect fires. Fire Desk Operations at Range Control can provide grid coordinates for many of the larger 'Hard' targets in the impact area.

5-6 Training Aids

a. ATTERBURY-MUSCATATUCK maintains a limited supply of device-based training aids and materials. Additional training support materials, facilities, and equipment can be made available for training unit use.

b. Training Aids Support Center (TASC), an extension of the Ft. Knox, KY TASC. MILES equipment, training aids, A/V equipment and TADSS items are on-hand at the TASC. These items are available for short term unit issue in support of unit training needs. Other types of TADSS or additional quantities of standard Army training aids can be made available upon request and with advance coordination. A list of on-hand training aids and devices may be

obtained from TASC, Bldg. 634 ext 1245. Requests for other training aids not on hand locally, must be submitted to DPTMS-TASC NLT 60 days prior to issue.

Chapter 6

Small Arms & Machine Guns

6-1 Firing Conditions

a. Range safety information and small arms SDZs for direct fire weapons on this installation are the Army standard. SDZs are created IAW DA Pam 385-63 or applicable interim safety guidance from Army Safety Office, Ft. Monroe, VA. The safety fans are generated manually or with the Range Manager's Toolkit in conjunction with ArcGIS software. CAMJTC Direct fire ranges were designed with the 'Ice Cream Cone' SDZ and are fired using it. The batwing area of the SDZ model is monitored on all ranges as required.

b. All personnel within the hearing hazard zone will wear approved hearing protection.

c. Cross-firing (firing at targets in one lane from a firing point in another) is never permitted.

d. Maneuver live fire exercises must comply with Chapter 19 of this regulation.

e. Automatic rifles are considered to be "loaded", whenever a magazine is placed within the weapons receiver. Rifle bolts will remain open and locked to the rear at all times, except when firing.

f. All weapons will be verified clear and safe by the RSO before leaving the firing line.

g. When any unit personnel move from one firing position to another, they will move with weapon set on "SAFE", and with the muzzle "UP, and DOWN-RANGE".

h. Unit range personnel may not go down-range beyond the firing line without the approval of Range Control. Courses of fire exempt from this restriction are units conducting 10 and 25 meter zero on approved ranges.

6-2 Machine Guns

a. All crew served machine gun ranges require traverse and elevation (T & E) mechanisms on all tripod and vehicle mounted machine guns. Free gunning is not authorized. Bipod firing is authorized on M249 AR firing only. Range Control must certify the lay of all weapon systems fired on Atterbury ranges.

b. Hard target arrays in the impact area that are seen from the firing line are not necessarily available for target acquisition. Range cards should be used for all field fire systems and left and right limits (as identified by Range Control or specific range procedures) must be strictly enforced by the Range OIC.
c. If the weapon continues to fire after the trigger has been released (i.e. a "Runaway Gun" condition), keep the weapon muzzle pointed down range. Twisting the ammunition belt will interrupt the firing cycle and cause the weapon to stop firing. A weapon that exhibits this malfunction will be checked by armorer support before the weapon is used for any range firing.

6-3 Blank Ammunition

a. Exercise the same safety precautions for the firing of blank ammunition that is used when firing live ammunition. Whenever a weapon with blank ammunition has been used in a training exercise, units must ensure they are cleared prior to leaving the training area.

b. Troops will not use blank ammunition while conducting combatives or hand to hand combat.

c. Blank ammunition or pyrotechnics will not be fired within the limits of the cantonment area, without the specific prior approval of DPTMS and the Training Center Commander. The request must be turned into the Range Control OIC.

d. Special care and control of ammunition is required by every unit, so as to preclude the inadvertent mixing of live or blank ammunition during training. This is imperative any time a unit transports, stores, and issues both types of ammunition from a field location. Blank and live ammunition items will be segregated within the field storage locations and each item will be clearly marked. All unit ammunition issue actions will use positive control procedures that are designed to prevent the accidental mixing of blank or live ammunition lots, during field issues. Additional special precautions and controls are required for all ammunition issues made during the hours of darkness.

e. When utilizing blank ammunition during a training area roads exercise the using unit must coordinate with Range Control to ensure blank ammunition is only utilized on approved routes. A plan must be in place to clean up brass left on the roads prior to traffic utilizing those routes.

f. Blank ammunition fired at personnel at close range can injure or kill; ensure personnel are properly briefed on the safe use of blank ammunition whenever used in a training event.

Chapter 7

Grenades and Grenade Launchers

7-1 Hand Grenades

a. There are one live and two qualification practice hand grenade ranges on the Training Center. Refer to the Atterbury-Muscatatuck Facilities Scheduling Form (Scheduling Branch) and Individual Range Procedures (Range Branch) for weapons systems on specific ranges.

b. The provisions of DA Pam 710-2-1 (Supply Update) concerning the specific

accountability requirements for hand grenades apply.

(1) Range OICs will ensure that this requirement is accomplished.

(2) The counts of the number of grenade pins removed from each live hand grenade that was used by the unit, and the number of unused live HE hand grenades issued to the unit, must equal the total number of live hand grenades issued to the unit.

(3) Units must also account for all pull-rings from expended live HE grenades.

c. Firing conditions for live HE fragmentation grenades.

(1) Personnel within the 150 meter danger area of casualty-producing hand grenades will wear approved protective helmets, protective body armor (flak jackets), 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 down range. 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 Safety.

(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 (referred to as mock bay) is mandatory prior to live grenade training.

(4) OICs, RSOs, and live bay Safeties 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 DA PAM 385–63 pre-live bay requirements.

(5) High explosive grenades that fail to function (dud) will not be approached except by EOD personnel. During training, if a grenade fails to explode, the throwing of live grenades in any bay within the uninterrupted fragmentation radius of the dud grenade will cease. Dud grenades will be destroyed by EOD personnel only. Unauthorized personnel will not approach, move, touch, or handle dud grenades.

(6) Direct viewing of hand grenade detonations are not permitted on the Training Center.

(7) Live grenades will only be used on Range 54 (Live Hand Grenade Range) due to inherent risk and hazards of training with HE grenades.

(8) Range OICs and RSOs will ensure that grenades are thrown in sequence (not simultaneous) so that determining the actual number of grenades that detonated is accurate.

7-2 Grenade Launchers and Grenade Machine Guns

a. There are a limited number of ranges that support the firing of both TP and HE 40mm grenades. Refer to the Atterbury-Muscatatuck Training Asset Inventory and Individual Range Procedures for weapons systems supported on specific ranges.

b. When firing the M203 using HEDP-type 40mm HE round, a minimum target engagement range of 165 meters is required.

c. Although 40-mm grenade launchers M320 and M203 are designed to prevent accidental chambering of MK19 40-mm, high-velocity ammunition, OICs and RSOs will ensure only low-velocity grenade cartridges are fired from M320 and M203 grenade launchers.

d. Hearing protection will be worn within 2m of firing these grenade launchers. A helmet and body armor must be used while conducting firing of HE M203 40mm grenades.

e. 40mm CS-type grenades are not authorized.

f. The following applies to the MK19/MK47 40mm grenade machine guns:

(1) Any TP type 40mm rounds that have a spotting charge are considered dud producing and may only be fired into the common impact area.

(2) Other non-established 40mm GMG firing points may be authorized for the use of the MK19, but require the prior approval of Range Control.

(3) All 40mm HEDP type rounds must be fired into the common impact area.

(4) When firing HEDP ammunition, the minimum target engagement range is 310 meters.

(5) When firing TP ammunition, the minimum target engagement range is 75 meters.

(6) Firing the MK19 GMG weapon through any type of obstruction is prohibited.

(7) Personnel within a 310 meter radius of the projected impact points of the 40mm HEDP round will wear the protective helmet, body armor, and ballistic eye protection during the conduct of any HE range firing.

(8) Approved hearing protection is required to be worn whenever individuals are within the 20 meter radius of each MK19/MK47 40mm GMG weapon firing point.

Chapter 8

Antitank Rockets

8-1 Firing Conditions

a. There are a limited number of ranges that support the firing of the Light Anti-

armor Weapon (LAW) systems, or other antitank rockets. Refer to the Atterbury-Muscatatuck Training Asset Inventory and Individual Range Procedures (Range Branch) for weapons systems supported on specific ranges.

b. Cover all ammunition that is stored on the range. Store rounds on pallets to the flanks of the firing positions and out of direct sunlight. Ensure that TP and HE type rounds are stored separately. Separate any misfired rounds (dud pit) from any unfired and serviceable ammunition lots.

c. Do not fire ammunition outside of any guidance that is prescribed for that round, regarding the temperature and conditions annotated.

d. Establish and enforce the prescribed weapon back blast safety limits, even for sub-caliber type firings IAW applicable operator-level Technical Manuals and other current safety publications.

e. When firing HE, HEAT, TP, smoke, and illumination rounds from the Ranger Anti-Armor Weapons System (RAAWS), All personnel within 390 meters of the weapon being fired will wear approved hearing protection.

f. Prone firing of HE and/or TP ammunition using the RAAWS is prohibited.

Chapter 9

Recoilless Weapons

9-1 Firing Conditions

a. There are a limited number of ranges that support the firing of recoilless weapons. Refer to the Atterbury-Muscatatuck Training Asset Inventory for weapons systems supported on specific ranges.

b. Ammunition loading and unloading will be accomplished at the firing line with the weapon muzzle pointed downrange. The procedures and safety precautions listed in the applicable weapons FMs and TMs must be followed during firing.

c. Personnel will not stand, or allow any part of their body, within the danger area located to the rear of a loaded weapon. Weapons grounded on the firing line will be considered as a loaded weapon. These weapons must be approached from the flank or from either side of the weapon.

d. Approved hearing protection will be worn by all personnel within 700 meters of the firing line.

e. Ammunition stored at a firing position will not exceed the amount necessary for one firing order. Ammunition must always be covered and protected. Do not remove the protective sealing tape on the ammunition containers until the ammunition is to be fired.

f. Water must be accessible to cool down a weapon and to avoid the potential of a cook-off during a weapon misfire.

g. Weapons will be bore-sighted before firing.

h. The rear, or breech, end of the weapon must be kept free of any obstruction before and during the conduct of firing.

i. If there is any perceived rearward movement of the weapon when fired, that weapon will be immediately cleared and removed from the range. The weapon must be inspected and thoroughly cleaned before any further firing of that individual weapon may resume.

j. Inspect each round for powder punctures, before loading the weapon. Return any defective ammunition to the ASP.

k. If the rifle barrel becomes hot due to continuous firing, a cook-off may result. Cool the rifle barrel with water before attempting to remove any projectile from a hot weapon. Always keep the weapon pointed down range into the range impact area while cooling the weapon barrel.

I. Establish weapons back blast safety areas according to DA Pam 385-63 and weapons systems regulations.

Chapter 10

Mortars

10-1 General

a. This chapter contains the general procedures and precautions required to fire mortars on this Training Center. Firing point specific information is available at Range Control.

b. References. Units will comply with AR 385-63, DA Pam 385-63, NGR 385-63 and all other applicable regulations, TMs, procedures and documents pertaining to these weapons systems and their use.

c. Safety certification program. Commanders of units with mortar systems will conduct an annual Mortar safety training certification program IAW AR 385-63, and DA Pam 385-63.

10-2 Firing Conditions

a. All mortar firing points on this Training Center are established as permanent positions. The use of any caliber mortar at any other location other than these approved locations requires prior approval of the Range Control OIC or NCOIC. (See paragraph 10-3-c)

b. Each mortar Fire Direction Center (FDC) will post on a map the location of the mortar firing point used. The information to be posted on the map includes the position safety limits, Mounting Azimuth (MAZ), or the Direction/Azimuth of Fire (DOF/AZOF).

(1) The dudded impact area will be used for all service firings of any caliber of

mortar. The designated impact area is within the following grids: WGS 84: 84005221, 83005221, 81885247, 81905083, 82585046, 84005121. Mortar range OIC/RSOs will verify that the unit M23 Mortar Ballistic Computers (MBC) have been correctly initialized, including the "SET UP" and "WPN DATA" switches. To initialize the M23 MBC, use the following data:

(a) Min Easting. 075000

(b) Min Northing. 036000

(c) GD (Grid Declination). Enter "WO4" (optional entry).

(d) LAT (Latitude). Enter-"+39" (optional entry).

c. Use the following guidelines for mortar live-fire.

(1) The base or center gun must be located within a radius of 100 meters from the surveyed mortar firing point. Reference FM 23-90, paragraph 1-8(h), page 1-9.

(2) Mortar ammunition, prepared for firing and stored at each mortar firing position, will not exceed the amount estimated to be required for the support of two (2) firing missions.

(3) Replace all safety wires on fuses, as applicable, along with any propellant increments that have been removed, on unused or unfired mortar rounds. Place all unfired rounds into empty ammunition tubes for safe movement during displacements from the MFP.

(4) All personnel who fire the mortar will wear the kevlar helmet, eye protection and individual hearing protection. When firing the carrier mounted 120mm Mortar, all crew members and any other personnel inside the mortar carrier must wear double hearing protection. Double hearing protection is defined as any approved earplug plus either a CVC helmet, or a CAPS/ASCAPS with the kevlar helmet.

(5) All unused mortar propellant increments that have been removed from the mortar cartridges will be placed in a metal or wooden covered container. This container will be located at least 25 meters from the mortar firing position.

(6) Use visible safety stakes and safety aids to mark the right and left limit of fire of each mortar weapon at the MFP.

(7) The firing of mortar weapons over any occupied facility or over the heads of unprotected troops is prohibited.

d. Each mortar gunner will have on his person a "Safety T", prepared by the FDC and approved by the unit Range RSO for the firing position in use. This "Safety T" will cover all the types of mortar ammunition authorized to be fired from the firing point.

e. Any excess or unused propellant powder increments may be burned at or near the mortar firing point IAW procedures outlined in the appropriate manuals. The unit WILL NOT transport unused or excess propellant powder increments from one mortar firing position to another.

(1) When burning excess propellant increments, all personnel, vehicles or weapons shall maintain a minimum safe distance of 200 meters from the burn site. A safe distance from the Training Center exterior boundary, or from any adjacent range buildings, will be observed.

(2) The size of the powder burning team will be sufficient to also serve as road guards, arrange propellant increments, and fight any fires that may be started. The burning team will be supervised by an E-5 or above.

(3) The burning team will have a sufficient quantity of water available at the burn site (10 gallons, minimum). Fire beaters and/or shovels are also required to be available for use at the burn site.

(4) Range Control may impose temporary burning restrictions or controls due to current environmental or weather conditions.

(5) Unit must notify range control prior to burning.

10-3 Surface Danger Zones

a. Range Control has the locations of all surveyed and approved mortar firing points. The files of the survey and range safety data are maintained at Range Control.

b. Unit OICs will pick up a current range safety card when signing for the range. All approved mortar firing positions have mortar weapon "caliber specific" range safety cards. The range safety cards provide the right and left limits of fire that are authorized for the firing point. These cards are the only approved data that may be used for mortar live fire. The range OIC will have the range safety card readily available and must present the card if asked by any Range Control Personnel.

c. Any new or proposed mortar firing position, or a modification to an existing mortar firing point SDZ, will have the information provided/prepared by the using unit. This action will be coordinated and approved by the Range Control, NLT 72 hours before the planned firing.

d. Any mortar projectile that functions or lands outside the prescribed range safety limits of the firing point, or the sensing of a mortar round as "unobserved", requires the immediate actions of the Unit OIC/RSO, as outlined below.

(1) Immediately report the incident to Range Control. Unit range OICs will take the necessary actions as indicated on the Range Accident/Incident Checklist.

(2) Check Fire Freeze- Immediately suspend the firing of all weapons located at the mortar firing position, until the responsible weapon, or firing position has been identified.

e. When a mortar is fired using an insert or sub-caliber barrel, the weapon will be considered for safety purposes, as the caliber of the insert used. The caliber of the mortar round being fired will determine which MFP will be assigned to the unit. (The 81mm insert M303 for the 120mm mortar supports Short Range Training Ammunition ONLY. The 81mm insert M313 is also for the 120mm mortar and is used for service ammunition.)

10-4 Mortar Sabot and the Short Range Training Round (SRTR) Firing

a. Both the mortar sabot and SRTR mortar rounds must be fired using a scaled (1/10 scale) range.

b. SRTR mortar ammunition is a unit training asset. Recovery of all SRTR rounds fired, and the refurbishment of SRTR rounds for future re-use, is the responsibility of the using unit.

c. Units firing the SRTR system will use the M16 plotting board and manual FDC procedures, unless the unit's M23 MBCs have been specifically upgraded for the use of the SRTR round.

d. The Training Center ASP/Ammo Officer will provide detailed turn-in procedures, as well as any other specific procedures required, regarding the disposal of SRTR rounds that become unserviceable.

10-5 Additional Safety Requirements

a. Each Range OIC will have a reference file FMs, ARs, TMs, firing tables (FT) and other pertinent information and publications, available at the mortar firing point: All applicable and current Ammunition Information Notice(s), ("AINs") and Safety Of Use Messages, ("SOUMs"), for the weapon or ammunition being fired should also be available at the firing point.

b. The unit Mortar Range RSO will walk the firing line to verify the parallel and safe lay of the weapons, before the conduct of a fire mission.

c. Illumination round canister or casing impact must be considered whenever illumination missions are fired. Illumination rounds are not cleared for overhead fire but may be utilized in support of night operations within training areas or ranges. Illumination firing may be subject to some periodic or temporary restrictions due to weather, wind, or drought conditions. Range Control will advise a firing unit when such restrictions must be implemented.

d. Unit mortar range OICs will ensure that the M2A2 Aiming Circles or M2 compasses are properly declinated or have the proper Declination Constant (DC) applied. Necessary data required for use of the established declination stations are available from Range Control.

e. Range Control can provide the location of firing positions that may be used to conduct mortar direct lay and Trigger firing exercises.

Chapter 11

Field Artillery

11-1 General

a. This chapter contains procedures and precautions required to fire field artillery on this Training Center.

b. References. Each Range OIC will have a reference file FMs, ARs, TMs, firing tables (FT) and other pertinent information and publications, available at the artillery firing point: All applicable and current Ammunition Information Notice(s), ("AINs") and Safety Of Use Messages, ("SOUMs"), for the weapon or ammunition being fired should also be available at the firing point.

c. Safety certification program. Commanders of field artillery units will conduct an annual artillery safety training certification program IAW AR 385-63, DA Pam 385-63, and as outlined in FM 6-50.

11-2 Firing Conditions: General Requirements for Conventional Field Artillery

Artillery firing points. All current artillery firing points (AFPs) located on the Training Center are considered as permanently established firing positions. Range Control has developed approved computer generated SDZ for all artillery firing points.

a. Range Control will issue a current SDZ for each assigned AFP to the unit OIC, when issuing AFPs. OICs will ensure that they are NOT using outdated data.

b. Firing units must develop range safety diagrams for all unit live fire. Units will develop these safety diagrams from the data supplied from Range Control.

c. Units must contain all artillery firing impacts within the limits of the impact area.

d. Units are responsible for the creation of each "Safety T".

11-3 AFP Assignments

a. Any changes to assigned AFPs require;

- (1) the unit to conduct a reconnaissance of the firing position.
- (2) at least 48 hours in advance of firing.

11-4 Field Artillery Cannon, (Howitzer) –Requirements for Conventional Field Artillery

a. OIC/RSO. All conventional field artillery (FA) OICs and RSOs must meet the rank/grade requirements as stated in Table 1-1, of this regulation. The terms Position Commander, (Pos. Cdr.) and OIC, are synonymous in meaning regarding the required duties and responsibilities of an individual. b. Target visibility. All field artillery firing activity MUST cease if the visibility from the OP to the target impact area is less than 1/2 mile, unless artillery radar is being used.

c. Observed fire. Units must observe all artillery rounds fired. Units will notify Range Control that the first round fired was observed "SAFE" by the OP. Units will not continue to fire artillery weapons without the OP confirming the initial round fired was observed as being safely in the designated impact area.

d. Shell/fuse combinations. Never fire any artillery projectile without the proper fuse installed. Units are NOT authorized to fire unauthorized shell/fuse combinations.

e. Only ammunition and fuses that are certified 'cleared for overhead fire' can be used on Atterbury-Muscatatuck for indirect fire.

f. Safety marking.

(1) Cannons. Emplace safety stakes, tape, or physical constraints on the weapons at each AFP according to procedure prescribed in FM 6-50 to ensure that the prescribed safety limits are not exceeded.

(2) FDCs will depict the limits of the impact area for firing on the firing chart(s).

g. Publications.

(1) Units must have at the firing point all appropriate weapons systems and tactical manuals and publications. OICs and RSOs must clearly understand the contents and details contained within these publications.

h. RSOs will verify the safe lay of the firing platoon/battery weapons, IAW FM 6-50. The field artillery unit RSO(s) will walk the firing line before firing, to ensure the parallel lay of the field artillery weapons at the AFP.

i. Propellant burning. Propellant burning on this Training Center is authorized as follows:

(1) Units will burn any excess propellant increments and flash reducers at or near the firing position and before any platoon/battery displacement(s).

(2) An E-6 or above, will supervise the burning of any excess powder.

(3) When burning excess powder bags, units shall maintain a minimum separation distance of 200 meters from the powder burning area to all personnel, vehicles, and weapons. Units will maintain a safe distance from the powder burn site to the Training Center boundary, or to any structures that may be near the burning site.

(4) All unused powder and flash reducers will be burned IAW FM 6-50.

(5) The size of the powder burning team will be sufficient so as to serve as road guards or fight any fires that might be started as a result of the powder burning activity.

(6) The team will have a 10 gallon minimum supply of water present at the burning site and fire suppression equipment such as fire beaters or shovels.

(7) Burn restrictions. Environmental or weather conditions may require temporary restrictions on the burning of propellant at or near the firing point. Range Control will inform the artillery unit OIC or RSO when such a temporary restriction exists.

(8) Notification. Units MUST notify Range Control prior to burning propellant.

(9) MACS. Modular Artillery Charge System is authorized. (Check AINs for current restrictions).

j. High angle illumination. Units may fire high angle illumination missions to increase the "effective illumination area". The FDC will ensure that the fuse will not function short of the minimum range line and that all non-functioning projectiles impact within the range card limits.

11-5 Field Artillery Cannon Surface Danger Areas

a. Road guards. Units must post road guards, with a communications capability, on any road within surface danger Area E. Area E is defined as:

(1) 445 mils to the right and left of the Azimuth of Fire (AOF) of the emplaced artillery weapons.

(2) 105mm howitzer. 550 meters distant from the guns.

(3) 155mm howitzer. 750 meters distant from the guns.

b. Based on risk assessment of firing conditions, the installation/community range manager may reduce area E to not fewer than 300 m for 105-mm weapons and 350 m for 155-mm weapons on a case by-case basis.

c. Direct Fire Safety.

- (1) Field artillery weapons may be fired in the direct fire mode, using Range 22.
- (2) Minimum target engagements.
- (a) 105mm. 650 meters
- (b) 155mm. 750 meters

(c) Range Control will provide charge and fuse restrictions for a specific caliber of artillery weapon in a direct fire mode.

d. Overhead fire. Units firing field artillery service ammunition overhead of personnel must take special terrain considerations involving the safety of personnel who could traverse through or pass underneath the gun-target line (GTL). The OIC of a firing point must also take special precautions when firing proximity fuses during inclement weather. Whenever any "overhead" artillery firing is conducted, the fuses MUST have a code of "YTT", or "safe for overhead fire".

e. Map information.

(1) Impact limits. The grid coordinates for the perimeter points of the common impact area used for field artillery service firing are as follows WGS 84: 84005221, 83005221, 81885247, 81905083, 82585046, 84005121.

(2) Atterbury-Muscatatuck "MAPMOD" data. Always use this data for LFXs.

(a) Max Easting 588000

- (b) Min Easting577000
- (c) Max Northing 04359000
- (d) Min Northing 04341000
- (e) Grid Zone 16
- (f) Sphere 1

f. Firing incidents. Range OICs/RSOs will take immediate action when a projectile bursts or lands outside the prescribed safety limits of the impact area. The unit Range OIC, or Range Control will conduct an investigation of the circumstances involved in the incident as outlined below.

(1) Range OICs and the supporting OP will immediately place the responsible firing unit in a "Check Fire" status. The unit OIC will report the incident to Range Control. Range OICs will use the format of the Range Accident/Incident Checklist to report the incident (see Indirect Fire Binder obtained from Range Control).

(2) Range Control will immediately place all Field Artillery units conducting their live fire exercise in a "Check Fire Freeze" status until they have identified the responsible unit and have performed all necessary actions, to continue firing in a safe manner.

(3) Whenever an OP determines a round is "lost" or "not observed", the OP will promptly report that determination to the unit Range OIC. The unit RSO will then check the data for the round that was fired to determine if the round should have landed "safe". If the firing data indicates a "safe plot", a fuse malfunction may be assumed, and a second round may be fired, using the same firing solution. Under NO circumstances will more than two artillery rounds ever be fired using the same firing solution that result in a spotting of "lost" or "effects unobserved". The unit Range OIC/RSO must place the responsible unit in a "Check Fire-Freeze" status until the issue is identified and rectified prior to continuing their live fire. Only Range Control can give permission to relieve a Check Fire-Freeze.

11-6 Declination

Permanent certified declination stations are available for units to declinate the M2A2 Aiming Circle, the M2 compass, and Gun-Laying Positioning System (GLPS). Range Control maintains data for each of the reference points.

11-7 Co-Use

a. Exclusive use. Units firing indirect fire are authorized exclusive use of the assigned artillery firing point (AFP or MFP), including Surface Danger Area E, This is the only authorized "exclusive use" portion of the training area.

(1) The area that surrounds a Firing Point may be assigned to another unit.

(2) Artillery units undergoing an ARTEP evaluation (EXEVAL) will receive priority for the use of the area that surrounds an AFP.

b. Advance coordination. Units must coordinate, in advance, for the Installation use of any portion of the area(s) adjacent to the AFP. Both maneuver and field artillery units will agree on terrain utilization before the AT or IDT period in question. The artillery unit will coordinate with Range Control, NLT 72 hours in advance, regarding the Installation use of any effected training areas.

11-8 Observation Posts

a. All FOs will develop a safety fan at the OP that graphically shows the authorized impact area(s) for the firing unit that they support. FOs will determine that the effects of all rounds planned to be fired will land within the prescribed safety limits of the SDZ.

b. FOs or FISTs will establish and maintain positive communication with Range Control during firing. OPs must have an OIC and RSO and request a HOT time prior to the AFP or MFP they are supporting may go HOT. A red flag (and a flashing or rotating red light at night) will be continuously displayed at each "HOT" OP.

c. For laser use refer to Chapter 18. The use of the G/VLLD, in the "designation" mode, is NOT authorized.

11-9 Firing Restrictions

a. The following types of ammunition are <u>NOT</u> authorized for firing on the installation.

- (1) ICM, DPICM, APERS, or "Beehive"
- (2) Copperhead
- (3) FASCAM. ADAM-L, ADAM-S, RAAMS-L, or RAAMS-S or any other type.
- (4) SADARM. Sense and Destroy Armor
- (5) BAT. Brilliant Anti-Tank

b. The MLRS may only be fired using the M28A1 RRPR, ("Reduced Range Practice Rocket"). Firing positions available and the movement of a SPLL, during a "shoot and scoot" scenario, are restricted to a limited number of launch points and routes. Range Control will provide further details upon request. c. Firing times. The normal firing times, authorized for the firing of any artillery training day.

(1) Units MUST request opening and closing times, for airspace concerns, NLT:

(a) IDT: 1400 on Friday of an IDT weekend.

(b) AT: 24 hours prior to firing during an annual training period.

(2) Early/late firing. Units MUST request exceptions to normal limitations NLT 72 hours prior to the firing activity.

(3) All exceptions must be approved through the Installation and notification released through the Public Affairs Office.

d. Blast overpressure. Each firing unit must establish procedures for reducing the risks of blast overpressure hazards to artillery crews that could result in internal and auditory injuries to cannon crew members.

e. Unprotected personnel. Units will not allow unprotected personnel within the target and the associated surface danger areas (areas A, B, C and E) of the SDZ, during any artillery firing. This does NOT prohibit mission-essential personnel of a firing unit from occupying area E in a tactical emplacement (Lazy W, diamond, star formations).

Chapter 12

Tank and Bradley Fighting Vehicle (BFV) Gunnery

12-1 Firing Conditions – General

a. The following ranges are authorized for Tank or BFV Combat Table (CT) firing (main gun, sub-caliber or "dry" firing, exercises-day or night)

(1) Range 26: Table II (C), (MILES) or DRY (TCQC), Table V (MG) and Table VI (A, B or C), BFV Table V (C).

(2) Range 37: MPTR--All Tank/BFV Combat Tables (CT) up to and including Table VI (Main Gun) crew qualification. The range scenarios and range targetry are computer operated and scored. See the Range 37 SOP for specific guidance on the use of this range.

b. Request for changes to the established range scenarios, other than those found in the MPTR Tank/BFV range firing SOP, must be submitted to Range Control NLT 120 days in advance.

12-2 Tank and BFV Firing Safety

a. OICs and RSOs of Tank and BFV ranges must be weapons systems qualified and safety certified by the Battalion/Squadron Commander IAW the provisions of Chapter 1, paragraph 1-4 and Table 1-1, of this regulation. b. The OIC and RSO will ensure that all Tank and BFV crews are qualified to fire the gunnery table and range scenario scheduled. FM 3-20.21 ch 16 Heavy Brigade Combat Team (HBCT) gunnery and range firing standards required.

c. All misfires or vehicle weapon system malfunctions will be handled according to the applicable TM for the Tank or the BFV.

d. The OIC and RSO will ensure that safety briefings are conducted for all crews before any live fire. Briefings will include, but are not limited to the following topics or information:

(1) Day and night range firing scenarios.

(2) Left, right, and intermediate limits of fire.

- (3) Misfire procedures.
- (4) Vehicle flag/light procedures.

(5) ALL vehicle weapons system gun barrels WILL be pointed down range, whenever the vehicle is on the range.

(6) The provisions of Chapter 15, FM 3-20.21, HBCT will be covered in detail during the unit range safety briefing.

(7) Communication between the firing Tank or BFV and the MPTR range tower will always be maintained. If the tower-to-firing vehicle radio communication capability is interrupted at any time during a firing run, the firing run WILL be immediately aborted.

(8) ALL vehicle weapons systems will be cleared, safed, elevated, and checked in order to be verified by the unit Range RSO BEFORE the vehicle leaves the range.

e. When Laser Range Finders (LRF) are in use on a range, the unit Range OIC will ensure that

(1) all personnel are thoroughly briefed on laser range safety precautions.

(2) lasers are kept "off" unless the vehicle has permission to load weapons.

(3) the exterior LRF ballistic doors will be closed, to prevent the accidental firing of a laser, whenever the laser is not in use.

(4) ballistic doors will be closed before moving the vehicle to the rear of the bore-sighting line, or into the range parking/maintenance area.

(5) The use of a LRF, when the LRF is equipped with an eye safe filter over the emission port, is authorized in the tactical training areas.

(6) Additional information on laser operations is found in Chapter 18 of this regulation as well as in Chapter 18, DA Pam 385-63.

f. A red range flag must be displayed during all daylight firing and a flashing red light will be used on the range during the conduct of night firing. These

items, including thermal beacons, are available for Range 26 and will be issued by Range Control. Range 37 has a permanently installed visual and thermal lighting system for range limits of fire. A range security lighting system is installed on buildings in the range support area.

g. The maximum quadrant elevation (Max QE) authorized for tank main gun firing is 5°. The maximum quadrant elevation (Max QE) authorized for the BFV is 15°. Range Control will not approve any deviation from these restrictions.

h. The Vehicle Crew Evaluator (VCE) will NOT ride on the firing vehicle. VCE will follow a safe distance behind each firing vehicle during the conduct of firing exercises on the range. The VCE will use unit organic tactical vehicles for this requirement. The VCE will monitor all firing crew actions.

Chapter 13

Aerial Gunnery and UAS

13-1 General

Attack helicopter and helicopter aerial gunnery firing exercises are considered maneuver live fires and can be accomplished on the following ranges:

a. Range 24: Firing 7.62mm, 20mm, 30mm GMG, 2.75 inch FFAR, or the aerial TOW (inert) missile. Ammunition on the range is restricted to TP ammunition. The recovery of the flight control wires for TOW missiles fired on this range is not required. This range is limited to the use of a single Attack Helicopter per firing run. The range has three concrete re-arm and re-fuel (FARRP) pads located on the range. These pads may also be used for weapons system harmonization, weapons clearing, and bore sighting.

b. Range 38: 7.62mm door gun. Firing activities will be conducted IAW the provisions of this regulation and Appendix A, FM 1-140. Firing is done from one side at a time, general direction of fire is North.

c. Range 37. The MPTR range supports all pre-mobilization, Army standard, attack helicopter gunnery qualification requirements, IAW Appendix B, Helicopter Gunnery Tables, FM 1-140. The range has computer controlled and scored scenarios. The range is restricted to firing non-dud producing, TP ammunition. Targetry consists of both moving and stationary type tank or truck targets. Targets may also be fitted with thermal markers, for limited visibility or night firing exercises.

d. Range 160 (SOAR): This range supports 7.62mm door gunnery from both sides simultaneously Day and Night. Prior coordination is required with Range Control due to SDZ lockdown requirements.

13-2 Aerial Gunnery Safety

a. The OIC and RSOs for an aerial gunnery range must be familiar with both aircraft and weapon systems being fired. The unit range OIC is in overall charge of all aspects of range firing.

(1) The OIC must be able to observe all phases of the conduct of aerial gunnery firing tasks. This may require the unit Range OIC to be airborne. The unit Range OIC must have positive and continuous radio communication with Range Control. Range OICs will only receive permission to enter a HOT firing status from the Range Control Fire Desk utilizing the Range Control Net or telephone.

(2) The OIC will ensure that each aircraft knows the proper, safe flight profile that is to be used on the range. Each aircraft will demonstrate safe range flight operations before the aircraft will be cleared for a "hot" firing pass on the range.

(3) The unit Range OIC will conduct range safety briefings before ANY firing. The range briefing will include the aircraft headings to be used for each firing run, the limits of fire, including the "start" and "cease fire" lines, the areas of the range that are authorized for target engagements and the location of any aircraft malfunction or emergency landing sites.

(4) The malfunction pads planned for use must accommodate the SDZ for the ammunition loaded and in use on the aircraft weapons system. Range 24 has permanent concrete pads emplaced on the flank of the range. These pads are oriented into the range common impact area and may be used as a weapons system malfunction pad. Range 37 will use Gravel pad on Range 38 for this purpose.

b. The RSOs must be weapon systems qualified, and are responsible for monitoring the safety of all range operations. The RSOs ensure compliance, by all personnel, with established range safety procedures. The RSO reports directly to the range OIC.

c. A Standardization Instructor Pilot (SIP) or Instructor Pilot (IP) having immediate access to positive control of the aircraft and weapons system being fired is required, when the pilot or gunner is not current in the aircraft or on the aircraft weapons system being fired. For Door Gunnery, a qualified, non-rated crewmember flight instructor or non-rated standardization instructor having immediate access to the weapons system being fired will accompany door gunners who are not current and qualified.

d. Unit range personnel required and their specific duties are as outlined in Chapter 3, Section 11, FM 1-140.

e. The Range OIC will present the unit range safety briefing outline plan, communication plan, range ground safety plan and aircraft emergency plan, to Range Control, NLT 72 hours before the scheduled range firing date.

f. The helicopter gunnery range safety procedures and requirements outlined in Chapter 3, Section III, FM 1-140, will be followed.

g. The range OIC will have on site, all appropriate references and publications including applicable Safety Of Use Messages, (SOUMs) and any Ammunition Information Notices, (AINs), for the weapons systems.

13-3 Firing Conditions

a. All pilots and gunners engaged in range firing will be familiar with the range area, target emplacements, range impact areas, and all range firing limits as contained in this regulation and FM 1-140.

b. Qualified and current pilots or gunners, requires the "start" and "cease fire" range line be clearly defined with identifiable range markings, both visual and thermal, for day and night operation. A Range Control representative may be required to ride along during the dry run and identify start and stop fire points.

c. Pilots or gunners not qualified, or current in the aircraft or weapon system, require the distinctive ground marking of all limits of fire. These range markings must be both visual and thermal. Qualified SIPs or IPs, with immediate access to positive control of the aircraft and the weapon systems being fired, will accompany pilots and gunners.

d. All aircraft operating on the range, especially the firing aircraft, will have positive radio communication with the range OIC. If positive radio communication is interrupted between the firing aircraft and the range OIC, the firing aircraft will immediately cease fire and return to the range ready line, or to a safe area that has been predetermined by the range OIC.

e. Ammunition loading and unloading will be accomplished only in areas that have been specifically approved by Range Control. Range Control and Training Center Environmental Office must approve all Forward Area Rearm and Refuel Points (FARRP) areas. The range OIC will also ensure that the unit range Spill Prevention and Control Plan has the prior approval of the Training Center Environmental Specialist. Fuel spill kits will be on site at each refuel area or FARRP.

(1) Any aircraft flight routes, used by an armed aircraft to transition from an ammunition loading site to the firing range, must be selected so that any accidental weapons system firing will pose a minimal risk. These predetermined flight routes must be coordinated with Range Control. The route locations will be plotted on the range map, along with the status of the route. This information will be available at Range Control, as well as at the firing range in use.

(2) Master arm switches will be placed in the safe position before leaving the firing range SDZ or the range loading or unloading area.

f. After firing is completed, the aircraft will be statically grounded with all weapons switches placed in the "off" position. The aircraft weapons system will then be inspected and cleared of all ammunition.

g. Before an aircraft moves to a refueling point, from the range firing area, the aircraft will unload all rockets and all guns will be cleared and "safed." Aircraft

"Hot Refueling" or "Fat Cow" operations are prohibited without the prior approval of Range Control.

h. Diving fire is prohibited, without approval of Range Control.

i. Aircraft laser range use is as outlined in Chapter 18 of this regulation, the applicable portions of Chapter 18, DA PAM 385-63, the applicable portions of TM 55 series, "DASH 10s," aircraft Operators Manuals and TB MED 524.

j. Use of the AN/PVS-6, Mini-Eyesafe Laser Infrared Observation Set (MELIOS) for units so equipped, will be IAW TM 11-5860-202-10. MELIOS can be used with the Night Observation Device, Long-Range (NODLR), AN/UAS-11.

13-4 Firing Restrictions

a. Firing of the HELLFIRE Missile is NOT authorized on this Training Center.

b. Maximum launcher QE will not exceed 160 mils.

- c. Night vision devices (NVDs) will not be used for laser eye protection.
- d. Gunners are strictly prohibited from firing on wildlife.

e. Weapon systems on helicopters that are primarily aimed with the use of 'Class 3 or 4' lasers are not approved in the Dudded Impact Area. The duded impact area is not certified for laser use above 3R.

13-5 UAS (Unmanned Aerial Systems)

a. All units will coordinate UAS training with Range Control and Airfield Operations. OIC will complete a UAS checklist available from the airfield. UAS operating restrictions/requirements will be assigned by Range Control and Airfield Operations.

b. All UAS activities will be confined to the R3401 restricted air space associated with Atterbury-Muscatatuck. A Certificate of Authorization (COA) approved for operations north of Hospital Road for UAS systems exists and may be assigned by Airfield operations. The purpose of the COA is for Shadow UAS launch and recovery operations only.

c. UAS units must submit a weekly training memo to Range Control/Airfield Operations NLT 24 hours prior to execution. Schedule must contain requested training times and maximum airspace altitudes of UAS. Airspace will be scheduled by the using unit for any flights that exceed 5000' AGL by Range Control. The footprint of both R3401A and R3401B do not necessarily correspond with the installation boundary. It is the responsibility of the using units to ensure that systems remain within restricted airspace.

d. Airspace required for training must be confirmed with Range Control NLT 1500 on the day prior to the training event. Range Control will submit appropriate airspace request to the appropriate civilian authority (FAA).

e. Two radios are required at all times while flight operations are in progress. One radio will be issued from Range Control to the RSO. The RSO will report to Range Control when the Training Area is "occupied", "occupied training" and when operations are complete. The OIC will sign for a radio from the Airfield and must maintain constant communications with Himsel Tower at all times while UAS activities are in progress. (Aviation handheld radio is unit responsibility. The Airfield has two that can be loaned on a first-come first-served basis.)

f. The Range Control Firedesk or Airfield operations may call for an immediate grounding of the UAS in an emergency situation.

g. During an unrecovered Loss-Link with the UAS, the OIC will immediately notify Range Control/Airfield Operations/Himsel Tower. OIC will provide last known location, direction of travel, fuel duration remaining and expected routine. Range Control will coordinate the search and may notify civilian authorities if the UAS has the ability to leave approved air space.

Chapter 14

Air Defense Artillery Weapon Systems

14-1 General

a. Air Defense Weapons (ADW) may be fired, with certain restrictions, on either Range 20 or Range 22. The effects of ADW firings will be directed into the impact area.

b. When required, air defense weapons can be fired from other locations. The following conditions apply:

(1) A SDZ for the proposed firing location, including the specific firing to be conducted, type of targets and flight routes to be used, will be prepared and submitted by the using unit. The proposed training scenario, along with an approved range SDZ, will be submitted for approval to Range Control, at least 30 days before the scheduled training and firing.

(2) All required range safety and firing controls will be assessed and evaluated by the unit. The complete range plan for ADW firings will be submitted to Range Control, NLT 120 days before firing.

c. Weapons employment locations and pre-planned training scenarios designed for MANPADS (Stinger) training and using a Stinger Training Launch Simulator (STLS) are available from Range Control. Installation operations training can also be accomplished by coordinating unit training plans or scenarios with the Indiana Air National Guard, Air-Ground Range Operations Section and Atterbury-Muscatatuck Range Control.

14-2 Firing Conditions – General Requirements

a. The maximum quadrant elevation (Max QE) for any air defense firing is 65°.

b. All personnel and equipment will remain behind the firing line, except for personnel engaged in firing the weapon, the unit Range OIC, and required safety personnel.

c. The limits of fire for each weapon will be plainly marked or staked. The unit RSO will ensure that no ADW firing is conducted outside these limits. A unit ARSO will be used at each firing point to assist the RSO.

d. Aerial targets, including remote controlled aircraft (RCATs), will not be flown or operated on any range, or within any training area, without the prior approval of Range Control. Requests for the approval of all remotely controlled aerial target flight operations will be submitted to Range Control, NLT 14 days before the scheduled event.

e. Support for Avenger training, using the Avenger Captive Flight Trainer (CFT) can be provided. Unit requests for this type of training activity will be submitted to Range Control, NLT 120 days in advance.

14-3 Air Defense Automatic Weapons System Firing

a. Range firing of the 20mm Vulcan gun system, is limited to the use of target practice (TP), or target practice with tracer (TP-T), ammunition.

b. Engagement of aerial targets will be accomplished with firing conducted from a single range firing line. Pre-selected weapons firing positions will be established by the using unit to ensure that the effects of the range firing will be confined to the established range limits. Fields of fire, friendly troop locations (as applicable), and any other range limitations will be clearly marked at each ADW firing position.

c. The left and right limits for all ADW firing will be clearly identified and marked. Visual lighting or thermal beacons will be used as required.

Chapter 15

Guided Missiles

15-1 TOW Missiles

a. Firing conditions.

(1) There are a limited number of ranges that support the firing of TOW weapon systems. Due to the SDZ, a large number of ranges and training areas are affected. A live TOW missile, using an inert or TP round only, may be fired from specified ground launch positions; impact for the missile round is the common impact area. Ground mount TOW missile (inert or TP rounds only) may also be fired on Range 37, MPTR. Tow HE firing requests must be submitted to Range Control NLT 120 days from exercise. Approval for these exercises will be

made after confirmation of round and concurrent training is evaluated.

(2) Only those personnel actively engaged in the firing or the controlling of the ground mounted TOW missile will be allowed at the missile launch point. All personnel within 100 meters of either side of the launcher or 200 meters to the rear of the launcher will wear hearing protection. Personnel within 50 meters of the launcher will wear the kevlar helmet, flak vest, eye protection and hearing protection.

(3) Personnel at launch point will not stand behind or in front of the missile launcher, whenever a live missile is in the launch tube.

b. Surface danger zone

(1) Surface danger area F extends rearward of the missile launcher for a distance of 100 meters.

(2) OIC and RSO will ensure that no personnel or items of equipment are within this area.

c. Misfire/malfunctions will be handled IAW appropriate TMs.

d. TOW control wire residue from missile firings into the common impact area will NOT be recovered.

e. TOW control wire residue from any TOW missile firing, WILL be recovered, on a daily basis, for ground launched TOW missiles fired on Range 37.

f. Current and applicable Ammunition Information Notices (AINs), or current Safety Of Use Messages, (SOUMs), must be on site.

15-2 Javelin Missile

a. Firing Conditions

(1) Javelin missiles can be fired from Ranges 30 and 34. Only one missile may be fired at a time.

(2) Personnel will neither stand nor permit any part of their body to be directly behind or in front of the JAVELIN launcher.

(3) All gunners and unit personnel within a 25 meter radius of the missile launch point will wear flak vest, kevlar helmet, eye protection, and hearing protection. Personnel within 35 meters will wear eye protection and hearing protection. All personnel within 100 meters of the launcher will wear hearing protection.

(4) Javelin guided missiles will be fired according to the procedure and precautions outlined in appropriate FMs and TMs.

b. References for Javelin guided missiles:

(1) FM 3-23.37

(2) TM 9-1425-688-12

(3) Current and applicable Safety Of Use Messages (SOUM).

Chapter 16

Chemical Agents, Smoke, and Aircraft Spray

16-1 General

a. All personnel will carry and be prepared to wear the individual protective gas mask during a training exercise or operation that uses chemical agents or smoke. Ensure the filtration canister is not a training model as it will offer little protection.

b. Personnel will wear the individual protective gas mask under the following training conditions.

(1) Before the exposure to any concentration of smoke from a M8 white smoke grenade, an HC type smoke grenade, or any version of the Fordster smoke pot.

(2) Any time that an individual is operating in a smoke haze condition with a smoke density visibility of less than 50 meters.

(3) Whenever training operations are being conducted in smoke haze conditions, which have a visibility range greater than 50 meters, but when the operation is to be conducted for a duration of four or more hours.

(4) For smoke generator operating personnel, when the wind or lapse conditions make it impossible for the individuals to be able to stay on the up-wind side of the smoke or of the smoke source.

(5) When using smoke in a confined space.

c. The NBC training facility, situated in Training Area 117, is located on the south side of County Line Road, approximately 250 meters west of Schoolhouse Road. This area may be used for various types of unit NBC training. This area is also the location of the NBC gas chamber.

d. Smoke and riot control agents must not be used near adjacent training areas or roads where concurrent training is being conducted by other units unless prior coordination is made with those units.

e. No smoke is to be used within 36 meters of a tree between 1 April and 1 October due to the presence of the Indiana Bat. The Indiana Bat is a federally protected species. No smoke is to be used within 1,000 meters of any installation boundary.

f. No roads or trails that are open for general use may be obscured or exposed to riot control agents unless specifically coordinated with Range Control. The unit may need to post road guards on roads or trails that may be exposed to the chemical use area to control traffic.

g. Ensure that wind direction and speed is closely monitored throughout the duration of the smoke operation.

(6) Smoke will not be used in public demonstrations, displays, or ceremonies unless positive dissipation of the smoke can be assured and no exposure to the public or nonparticipating personnel is expected. A risk management plan will be developed by the agency conducting the public demonstration, in conjunction with the installation range control officer and safety director, for all uses of smoke in demonstrations, displays, or ceremonies. Wind speed and direction changes should be closely monitored.

16-2 Riot Control Agents (RCA)

a. The use of riot control agents and smoke operations must be coordinated, with Range Control, NLT 60 days prior. Information required to Range Control is as follows:

(1) Type of agent, or smoke that is to be used.

- (2) Proposed location of the exercise.
- (3) Quantity and type of agents to be used.
- (4) Duration of use.
- (5) Date and time of usage.

b. CS or HC hand grenades will not be activated at a distance that is closer than 30 meters to any individual. These grenades will not be used in any confined space such as a tent, vehicle, building, or any other restricted space, such as a tunnel, sewer or bunker.

c. Only Riot Control Agents (RCAs) approved by Range Control are authorized for use and may be limited to specific areas.

d. Only CS in capsule form may be used in the NBC Gas Chamber. NO EXCEPTIONS.

e. Only soldiers who are MOS qualified in the Chemical CMF, may supervise the use and employment of riot control agents. Officers are considered as chemically qualified, if they possess an AOC of 74A or an ASI of 3R. Enlisted soldiers are considered to be chemical qualified if they possess a MOS of 74D, or a SQI of C.

f. Riot control agents will not be used under conditions that would be dangerous to life or property. The use or employment of a riot control agent is limited to a distance of at least 1,000 meters from the Installation boundary. Riot control agents may not be employed within 100 meters of any heavily traveled road, within 500 meters of any aircraft operations area or within 750 meters of the cantonment area. Field exercises involving the use of RCAs will be executed at least 750 meters from any public traffic route.

16-3 Smoke

a. All soldiers involved in a FTX or training exercise, that entails the employment or use of smoke must receive a chemical safety briefing. This

briefing will cover specific precautions required regarding the conditions of use and type of smoke to be employed in the exercise. This special safety briefing will be conducted by the unit chain of command.

b. No activated CS grenade, or any other type of smoke grenade, may be thrown or discarded in a body of water, stream, or into a pool of impounded water.

c. RED SMOKE to include Red Phosphorous rounds may not be utilized without prior coordination with Range Control. An advisory must be given to the airfield due to it being an emergency signal.

16-4 Smoke Generator or Smoke Pot Use

a. Requests for the use of smoke generators or smoke pots, to support training must be submitted to Range Control, NLT 24 hours before use. Requests will include the location, execution time, the duration of time used for the smoke pattern, and the agent used. The estimated dimensions of the smoke dispersion pattern that will result from the application will also be provided.

b. Special considerations for smoke pot use.

(1) Smoke pots must be properly maintained and be kept dry before use.

(2) When employing smoke pots, select an area free from ignitable materials, to eliminate the possibility of a range or training area fire.

(3) No smoke pot will be made active inside a building, tent, or any other enclosed or poorly ventilated area.

c. Smoke pots or smoke generators will not be used within 1,000 meters of the Training Center ASP, live fire ranges, the cantonment area, Himsel Airfield, a public highway, or the Training Center boundary.

16-5 Mission-Oriented Protective Posture (MOPP) Operations

a. Commanders must take into consideration the additional heat stress that is placed on soldiers when protective gear is worn during a training exercise.

b. Add 10 degrees, to the announced "Wet Bulb" or "Botsball" reading, whenever the troops are wearing body armor or are operating in a "MOPP level 4," condition.

c. An adequate water supply must be provided whenever personnel are engaged in training that requires wearing protective gear.

Chapter 17

Mines, Firing Devices, Trip Flares, Simulators, and Explosive Charges

17-1 General

a. Only standard munitions or simulators may be utilized for training. Any exceptions require approval from the Indiana Adjutant General.

b. The OIC and RSO must be on a certification memorandum stating that they are trained to utilize pyrotechnics, simulators or demolitions.

17-2 Hand Grenade, Artillery, and Other Explosive Simulators

a. Before using any type of hand grenade simulator, unit commanders WILL ensure that all unit personnel are fully instructed as to the safe use and proper handling of these items.

b. Before removing the safety clip and extending the pull cord of the simulator, select a spot for detonation of the simulator that is free from rocks, loose gravel, sticks or other objects, which may become a secondary missile hazard. Do NOT use any type of simulator in an area that is NOT clear of debris, rocks, or gravel.

c. The user of any simulator must ensure that no individuals are within 30 meters of the intended explosion point. Unit personnel must be clear of the trajectory and the explosive effects of any simulator.

d. If the simulator fails to detonate, it must be considered a "dud". The area should be kept free of personnel for 30 minutes, in the event of a delayed ignition. The location of the unexploded device should be clearly marked with engineer tape, or other material. Give as precise directions and grid coordinates as possible to Range Control.

e. After the simulator explodes, check the area to ensure no fires have started.

17-3 Ground Flares, Booby Trap, Mine and other Simulators

a. The unit Range OIC, RSO and the unit commander will ensure that all personnel who will handle, install, use, or fire any type of these devices, have been fully briefed on the safety issues regarding the use and employment of ground flares.

b. These simulators will be mounted and staked down, with individual simulator pull wires set and attached. The unit RSO will personally check the installation of all simulators.

c. The unit commander will clear and ensure EOD (if required) disposes of all unexploded simulators, before conducting any subsequent training in the area. Disposal of a simulator that fails to function as designed, will be accomplished IAW the procedures and requirements outlined in the FM or TM specific to the device being used. Under NO circumstances will an unexpended or "dud" type simulator or pyrotechnic item be buried or disposed of in a training area. These items are NEVER authorized to be removed from the Training Center by any individual, civilian or military.

d. After the simulator explodes, check the area to ensure no fires have started.

17-4 Hand Held Signals

a. Commanders are responsible to ensure that all unit personnel have been trained on the safe and proper use of all hand held signals to be employed.

b. Flares should be pointed at an angle high enough to ensure the flare burns out before reaching treetop levels. If it appears that a flare is burning on the ground or in brush or trees, you must monitor it to ensure it does not start a grass or wildfire.

c. Watch for low flying aircraft operating in the area. Never fire flares in the presence of any aircraft unless the aircraft is part of the tactical exercise, aware of the use of flares, and in communication with the unit.

d. Never fire flares through overhead cover, electrical wires, or similar areas where overhead obstructions may employ or deflect the flare.

17-5 Demolition and Explosives Firing

a. In order to conduct any live, conventional (electric or non-electric), demolition firing, personnel must be qualified. Deliberate Risk Assessments will be prepared for all demolition and explosive charge firings. Units must adhere to the minimum safe distance for both lethal fragments and use of hearing protection.

b. To preclude a premature detonation of electrically primed or fired explosives, turn off all radios, including any other electronic signal emitting equipment, whenever the equipment is to be operated within 1/4 mile (1,320 feet), of a demolition site.

c. Do not conduct any demolition work during an electrical storm, snow storm, or in close proximity to any device that can emit static electricity.

d. Handle blasting caps with extreme care. Always carry the caps in a cap box, or in a non-metallic container, to provide protection against shock.

e. Do not store any type of blasting caps closer than 25 feet to any other demolition or explosive items.

f. When preparing any demolition charge for firing, maintain a minimum separation distance of at least 10 meters from other unused or stored demolition items.

g. Test all electric blasting caps with a galvanometer, before crimping and connecting the blasting cap into an explosive circuit.

h. Re-package any unexpended demolition items into original containers, before returning any unused items to the Training Center ASP.

i. The provisions of paragraph 11-13.1, DA Pam 710-2-1(Supply Update) apply

to the use of all demolition and explosive items. Range OICs will also comply with the requirements listed in subparagraph b, of the same regulation. A demolition plan (DA Form 2203-R) for all demolition firing will be prepared by the unit Range OIC, on a daily basis. This form will be completed and submitted to Range Control prior to any range demolition firing. FM 5-25 provides instructions for the preparation and use of DA Form 2203-R.

j. There are three specific engineer demolition training areas or ranges that have been established for demolition use. Use of these areas may be coordinated with DPTMS Scheduling Branch and Range Control. Additionally MUTC training facilities may be utilized for breaching. Refer to MUTC demolitions SOP for specific guidance.

(1) Ranges 33 and 44 support heavy demolition firing activities.

(a) Currently there is a 40 lb. Net Explosive Weight for charges fired on these ranges. Cratering charges may be used dual primed with initiators for a Net Explosive Weight (NEW) of 56 lbs in accordance with FM 5-250.

(b) A one minute time interval between the firing of each explosive detonation above twenty pounds, is also required.

(c) Range Control will advise the unit Range OIC of any changes to the charge limits or other special restrictions that may be in effect for this range.

(d) Bangalore torpedoes may be fired in these areas. When a Bangalore torpedo is fired, the torpedo will be in a horizontal position on the ground. The course of fire may not exceed 3 (10 foot) sections per single charge. All personnel will wear approved protective helmets, flak vests and hearing and eye protection.

(2) Range 58 (breeching facility) may be utilized for breech training with charge weight of .66lbs NEW DET cord.

a. Other demolition areas. DES training activities approved by Range Control may also be conducted in conjunction with other combined arms training throughout most of the numbered tactical training areas. Units will coordinate, in advance, for any necessary engineer support, required to support maneuver unit tactical training.

b. For any combined arms training, the supported unit is responsible for the detailed coordination required. Range Control will be thoroughly briefed on the details of any engineer demolition activities that will be conducted to support maneuver unit training.

c. Demolition exercises will be conducted at least 1,000 meters from the Training Center boundary, public roads, or any built up area unless otherwise approved by Range Control.

d. A five minute warning before the detonation of any explosive charge of 10lbs or more will be transmitted to Range Control before the firing of a charge. Range Control will also be notified when all blasting activities have been completed.

e. Gasses released by the detonation of explosive charges are toxic. Personnel should always be positioned upwind from the detonation point of the explosive items, to avoid possible harmful effects.

f. When the electric method of detonation for explosive operation is in use, all firing operations will be suspended during, or upon the approach of, an electrical storm.

g. The electric firing of demolition items will not be used in the tactical training areas, if the charges are within 175 meters of any energized electric transmission line. All possible sources of static electricity must also be eliminated from the demolition area or site, if the electric firing method is to be used.

h. The unit Range OIC will ensure that all personnel are located at the minimum safe distances (MSD) prescribed in DA Pam 385-63. Noise hazard contours will be calculated to ensure non-participating personnel are protected. No demolition charge will be initiated or detonated, until all participating personnel at are in a safe location.

i. All charges will be dual primed before the charge is set in place. A nonelectrically fired demolition charge may NOT be thrown, or projected in any manner, after initiation of the charge.

j. After a demolition exercise has been completed, the area used will be checked for any unfired demolition or for other explosive items that have not detonated.

k. The firing unit is responsible for the filling and covering of any blast craters that result from the explosive demolition charge firings. Positive drainage of all disturbed surfaces will be maintained. The area will be inspected by Range Control before clearance of the training area.

I. Any special equipment required such as steel frames, concertina, logs, etc must be requested at least 72 hours prior to the event.

m. The Individuals who prime and set a charge are responsible to clear and disarm any misfires. Follow the procedures contained in the appropriate FM or TM for the handling of demolition misfires.

n. Unit range OICs involved in the firing of demolition and explosive items will comply with the provisions contained in paragraph 11-13-1, subparagraphs a and b, DA PAM 710-2-1 (Supply Update). This includes the required use, by the unit, of a DA Form 2203 for the conduct of all demolition operations or a DD 3020 for breaching.

o. All charges must be primed and fired prior to dusk. Demolition operations after dark are prohibited unless specifically approved by Range Control.

17-6 Mines

a. General.

(1) High explosive mines may not be used during a training activity, except for demonstration purposes. When so employed, mines will be detonated by electrically fired, dual primed, one-half pound charges, placed directly on the pressure plate of the mine.

(2) Mines will be fired on barren ground, with no metal or rocks in contact with the mine, or within the area that is immediately next to the mine.

b. Training Mines. These inert mines and their procedure simulators (mousetrap, etc.) may be employed anywhere in the training areas. The use of mechanical mine laying equipment must be pre-approved by Range Control.

c. Claymore mines.

(1) There are a limited number of ranges that support the firing of Claymore Mines. Refer to the Atterbury-Muscatatuck Facilities Scheduling Form (Scheduling Branch) and Individual Range Procedures (Range Branch) for weapons systems supported on specific ranges.

(2) Before firing any Claymore mine, the OIC will check ALL mines to be fired to ensure that the following actions have been accomplished.

(a) The Claymore mines have been correctly installed and are safely emplaced, before the arming of the Claymore.

(b) The face of the Claymore, marked "Front Toward Enemy", along with the arrows on the top of each mine, will be pointed toward the authorized impact area for firing the mine.

(c) Once a Claymore mine has been emplaced for firing, it will not be disarmed, except by order of the unit Range OIC.

(d) Firing wires will not be connected to the firing device until so ordered by the unit Range OIC.

(e) Individuals installing the Claymore mine will carry the firing device on their person during emplacing and before the detonation of the Claymore.

(f) Blasting caps will not be inserted into the detonator well of the Claymore mine, until the mine is emplaced in a firing position.

(g) The back blast area is clear of personnel and secured.

17-7 Mine Clearing Line Charge (MICLIC) Operations

MICLIC firings are restricted to the use of the M68A2, inert type, line charge. There is only one approved location on Range 26 and it requires specific control measures and scheduling.

Chapter 18

Lasers

18-1 General

a. Laser devices can seriously injure the unprotected eyes of any individual located within the laser beam. Intra-beam viewing of either the direct laser beam, or of a laser beam reflected from a mirror-like surface, will expose an unprotected eye to potential hazard or injury. This unsafe condition or situation must be avoided. The goal of laser range safety is the prevention of the accidental intra-beam viewing of a laser beam or of laser energy by unprotected personnel. This chapter prescribes the minimum safety procedures that must be followed when using any laser devices.

b. The operation of a laser system is restricted to specific ranges and locations. Atterbury-Muscatatuck's Impact Area is restricted to Class 3R and below LASER operations. All higher frequency LASERs are required to utilize a LASER trap to contain the beam. Range Control will provide a list of the approved ranges or positions that are authorized for the conduct of a lazing operation.

18-2 Precautions for Laser Device Use

a. Range OIC/LRSOs must know the nominal optical hazard distance (NOHD), as well as the NOHD-M, (with magnifying optics), limit of the laser device being used. The Range OIC/LRSO will have a graphic representation of the laser range surface danger zone (LRSDZ) for the laser training being conducted. The LRSDZ must be accurately posted and displayed on an Atterbury-Muscatatuck Training Center map located at the lazing point or range.

b. Units will provide laser safe eye protection for unit personnel, as required. Night Vision Goggles (NVGs) are NOT laser safe, and do not provide protection from a laser beam.

c. Direct viewing of the MILES laser beam, from a close range, must be avoided. Laser systems, other than MILES, will NOT be used during the conduct of any two-sided tactical training exercise.

d. The NOHDs for any laser, when in the range-finding mode, is less than the range that is achieved or that can be realized when the laser is operated in the designator mode.

18-3 Laser Firing Range Operations

a. All lasers will be regarded as a direct fire weapon. Airspace requirements for using a laser must be requested through Range Control.

b. The conduct of any lazing operation, without the approved laser system eyesafe filters attached, is restricted. The effects of any lazing operation will be confined to the common impact area. All lasers, without Eye Safe Systems for Laser Ranges (ESSLR) devices installed, are restricted to specific areas for employment. The laser blister covers, or exit ports, on all vehicles will be closed and locked any time a vehicle is being operated at a location other than those previously approved for laser use.

c. Only mission essential personnel will be at or near the laser firing point during any lazing operation.

d. Any case of a suspected eye exposure to a laser beam will be immediately reported to Range Control. Medical evacuation of the suspected injury may be required. An eye examination of the individual is required within 24 hours of an exposure to a laser beam. A Range Accident/Incident Checklist will be completed by the unit Range OIC/LRSO and submitted to Range Control within 12 hours of the incident. Additionally, the Range OIC and LRSO will submit a sworn statement to Range Control.

e. Besides the specific technical instructions covering the use of a particular laser device, or of a laser simulator, the following information applies to laser operations at this Training Center.

(1) Any range that will employ a laser system will appoint a LRSO and any assistant LRSOs as required. All range safety personnel must be certified and have a working knowledge of laser range safety as contained in this regulation and in Chapter 18, DA PAM 385-63.

(2) The unit must have a laser safety SOP. The using unit WILL furnish a copy of this SOP to Range Control.

(3) The OIC, RSO, and LRSOs must receive a specific laser Range Operations and Laser Safety briefing from Range Control prior to opening any range that will use a laser system.

(4) The RSO/LRSO will conduct a detailed safety briefing, for all personnel, concerning all specific laser operational safety issues and covering details on the laser operations to be conducted at the site. This briefing will be accomplished before the conduct of any laser operations on the range.

(5) Medical support personnel are not required to be located on a laser range. However, the proper channels for obtaining medical assistance for personnel at the range should be coordinated and identified prior to the opening of the range.

(6) The OIC/LRSO will maintain positive and continuous radio communication with Range Control.

(7) "Laser In Use" warning signs must be posted and protective barricades, as required, will be emplaced by the Range OIC/LRSO. These actions are designed to prevent unprotected personnel from moving forward of the laser firing line.

(8) A red range flag will be displayed, any time a laser range is open or in use. A red flashing or rotating, warning light will be employed at the laser site during

the hours of darkness.

(9) Lazing limit markers must be prominently marked by the unit to include: left; right; minimum and maximum ranges; and range to the vertical backstop.

(10) Emplace the laser directly over the surveyed position stake when the laser is operated in a dismounted mode. If the laser is employed from a tracked vehicle, position the vehicle next to the position stake.

(11) Ensure that an adequate backstop is provided for all targets that will be lazed. Ensure that the target area is free from specular (mirror like) surfaces. Glossy foliage, rain-drops and other natural objects are not considered to be specular surfaces. Avoid any specular surfaces within the authorized zone for lazing operations.

(12) The Range OIC/LRSO will complete a terrain sketch depicting the sectors of fire authorized for the laser before the conduct of any laser operation.

(13) Cease all lazing operations if control of the laser beam is lost.

(14) A 2 mil safety buffer, below the vertical backstop and below the horizon, WILL be maintained during all lazing operations.

(15) Aircraft flight crews will ensure that any aircraft laser systems, i.e. TADS, are only fired at approved targets. The Range OIC will ensure that the aircraft laser system is secured and unable to fire whenever the aircraft is at any location other than the authorized laser range site. Air crews conducting laser operations will wear individual laser eye protection.

Chapter 19

Live Fire and Maneuver Exercises (LFMX)

19-1 General

a. LFMXs are inherently extremely hazardous and are to be conducted only after detailed planning and progressive training events. They are generally conducted on any one of several established ranges with preset maneuver lanes and target emplacements. Use of these ranges will aid units in planning safe, effective training scenarios that require less developmental planning by the unit. Other LFMX courses of fire will be considered, but will require longer lead times for significant unit planning and for required review and approval process. If you are not willing to dedicate the time and effort to properly plan the LFMX and comply with all of the requirements, consider lower risk training events such as MILES force-on-force training exercises.

b. Atterbury-Muscatatuck has a specific LFMX checklist/procedure requirement that must be followed and completed prior to approval of any LFMX. This LFMX checklist/procedure form is available from Range Control.

19-2 Safety during Live Fire Exercises

a. All major subordinate commands (MSC) organizations or units planning to conduct a LFMX, must schedule the training event NLT 90 days in advance. The unit is required to schedule a terrain walk with the Range Manager at this time. The OIC must coordinate the plan and scenario for the exercise and submit a live fire packet to Range Control prior to 45 days in advance. The LFX packet must be approved by Range Control within 15 days prior to execution of the event. If units fail to meet the required suspense dates for live fire packet approval then Range Control reserves the right to cancel or disapprove the event.

b. An exercise director must be appointed for all CALFEX. (DA 385-63)

c. The details required for exercise coordination for any maneuver live fire exercise or CALFEX must be written in a letter of instruction (LOI) and include, but are not limited to, the following:

(1) The scheme of maneuver and fire support plan for the exercise. The unit or exercise director is responsible for ensuring a composite SDZ has been approved by the installation IAW paragraphs C-3 and C-4 of Appendix C, DA Pam 385-63.

(2) A complete listing of all weapons, types of ammunition by DODIC, pyrotechnic items, smoke by DODIC, explosive items and chemical agents by DODIC, as applicable that are planned for use during the exercise. DUD producing munitions will not be utilized on ranges or training areas outside the common impact area or on ranges within the impact area that require target maintenance.

(3) Unit control measures, risk assessments, and risk elimination or mitigation procedures will be applied to identifiable risks. The plan will also include the means of communication to be used, both internal and external to support the exercise.

b. The planning and operational requirements for live fire exercises are as outlined in Chapter 19, DA PAM 385-63.

c. The unit or exercise director will prepare a detailed risk assessment and risk management plan. This is a formal Risk Assessment that must be fully documented and submitted to Range Control. The findings or conclusions contained in the risk assessment and management plan will be confirmed by the first LTC (05) within the exercised units' normal chain of command.

d. All requests for the conduct of LFMXs on Atterbury-Muscatatuck will submit a Live Fire Packet containing the following: a Letter of Instruction (LOI), an initial DD Form 2977 (Deliberate Risk Assessment Worksheet), and a Commanders Certification by Memorandum for Record that all personnel have met the prerequisites listed in chapter 19, paragraph (f), subparagraphs 1-5 of this document and the appropriate FM or TC for the live fire event. This packet must be submitted to the Range Control Live Fire Safety Coordinator and approved by the Atterbury-Muscatatuck Range Control Officer. This packet will then be reviewed and approved by the Atterbury-Muscatatuck Current Operations Chief prior to the execution of the training event.

e. Observer/Controllers (O/Cs) or Vehicle Crew Evaluators (VCEs), who will not be a part of the tactical or administrative scheme of the exercise, will be appointed and properly trained. The O/Cs, VCEs will monitor all safety matters during the conduct of the exercise. These individuals WILL NOT be assigned any other duties. Unit RSOs and ARSOs are required, along with the safety O/Cs, VCEs. The primary duties of the unit RSOs, safety O/Cs, VCEs and ARSOs will remain focused on the conduct of a safe firing exercise.

f. Commanders whose units participate in live-fire exercises will **ENSURE** that all individual gunners including Bradley, tank, and aviation gunners, who will take part in live fire exercises have met the following prerequisites:

(1) All personnel must have zeroed and qualified with the assigned weapon and optics they will use during the live fire training event. Personnel will be qualified IAW appropriate FM or applicable MTOE 16organization standards.

a. Any mounted maneuver live fire exercise requires units to complete prerequisite gunnery tables in accordance with FM 3-20.21.

(2) A DRY FIRE or BLANK FIRE iteration will be conducted before live fire training. Personnel will not advance to live fire training if the OIC's assessment of an individual's or unit's training is not up to standard.

(3) A day live fire exercise must be conducted before night fire is allowed; if a soldier did not complete Day fire they will not be allowed to fire at night. Night Vision equipment referred to in subparagraph (a) below will be used during any night time train. Night time training must be requested in the training packet and be implemented into the separate Risk Assessment. Commanders will certify Night Vision Equipment training is completed by all users.

(a) Night Vision: For nighttime training, use of Night Observation Devices (NODs) are required. These include illumination intensification, infrared (IR) and passive infrared (PIR) devices.

(4) An on-site training scenario brief is required for all participants prior to a training event, Live or Non-Live Fire exercise and must be given by either the OIC or RSO.

g. Live fire infiltration courses are NOT authorized.

19-3 Exercise Planning

a. At least 72 hours prior to any LFMX, or CALFEX, the unit OIC and the RSO will brief Range Control OIC on the exercise details. This detailed briefing will include the exercise objectives, scenario, the control plan, and all details regarding exercise safety.

b. The OIC must be a field grade officer, or higher, whenever a CALFEX or

battalion or larger sized LFX is conducted.

c. Dry run rehearsals, (Rock Drills) for all unit personnel, MUST be conducted before the execution of any live fire scenario, to be used on a CALFEX or LFMX.

Chapter 20

Automated Shoot House (ASH) Live Fire Exercises

20-1 General

a. Automated Shoot House (ASH) Live Fires are inherently extremely hazardous and are to be conducted only after detailed planning and progressive training events.

b. Atterbury-Muscatatuck has a specific Shoot House Live Fire checklist/procedure requirement that must be followed and completed prior to approval of any Shoot House Live Fires. This checklist/procedure form is available from Range Control.

c. Unit Shoot House Live Fires planning packages will be submitted to Range Control for review and, if approved at that level, endorsement to DPTMS. A Shoot House Live Fire exercise will be authorized only after DPTMS review and approval.

20-2 Exercise Planning

a. All major subordinate commands (MSC) organizations or units planning to conduct an Automated Shoot House exercises, must schedule the training event NLT 90 days in advance. The OIC must coordinate the plan and scenario for the exercise and submit a live fire packet to Range Control prior to 45 days in advance. The LFX packet must be approved by Range Control within 15 days prior to execution of the event. If units fail to meet the required suspense dates for live fire packet approval then Range Control reserves the right to cancel or disapprove the event.

b. The details required for exercise coordination for any Shoot House exercise must be written in a letter of instruction (LOI) and include, but are not limited to, the following:

(1) The OIC is responsible for the preparation of the scheme of maneuver, IAW the Atterbury-Muscatatuck Automated Shoot House SOP.

(2) A complete listing of all weapons and types of ammunition that are planned for use during the exercise.

(3) Unit control measures, risk assessments, and risk elimination or mitigation procedures that will be applied to identifiable risks. The plan will also include the means of communication to be used, both internal and external to support the exercise.

b. The planning and operational requirements for live fire exercises are as
outlined in Chapter 20, CA Regulation 385-63, and the UAC/ASH SOP located at Range Control.

c. The OIC will prepare a detailed risk assessment and risk management plan. This is a formal risk assessment and will be fully documented. The findings or conclusions contained in the exercise risk assessment and management plan will be confirmed by the first LTC 0-5 within the exercised units' normal chain of command.

d. All requests for use of the shoot house will submit a Live Fire Packet containing the following: a Letter of Instruction (LOI), an initial DD Form 2977 (Deliberate Risk Assessment Worksheet), and a Commanders Certification by Memorandum for Record that all personnel have met the prerequisites listed in chapter 19, paragraph (f), subparagraphs 1-5 of this document. This packet must be submitted to the Range Control Live Fire Safety Coordinator and approved by the Atterbury-Muscatatuck Range Control Officer. This packet will then be reviewed and approved by the Atterbury-Muscatatuck Current Operations Chief prior to the execution of the training event.

e. Observer/Controllers (O/Cs), who will not be a part of the tactical or administrative scheme of the exercise, will be appointed and properly trained. The O/Cs will monitor all safety matters during the conduct of the exercise. These individuals WILL NOT be assigned any other duties. Unit RSOs and ARSOs are required, along with the safety O/Cs. O/Cs to monitor the conduct of ARTEP tasks, conditions and standards will also be appointed, if the end state of the exercise is to be a formal or external evaluation (EXEVAL). Additionally the OIC/RSO and O/Cs are required to watch the ASH instructional video prior to utilization of the facility. The primary duties of the unit RSOs, safety O/Cs and ARSOs will remain focused on the conduct of a safe firing exercise.

f. The following prerequisites are required for an ASH exercise:

(1) All personnel must have zeroed and qualified with the assigned weapon and optics they will use during the live fire training event. Personnel will be qualified IAW FM 3-22.9 or applicable organization standards.

(2) All personnel will have completed training and be qualified on assigned weapon IAW FM 3-22.9 chap 7, using tables 7-18, 19, and 20 Record and Practice fire standards for short range marksmanship qualifications.

(3) All personnel will have completed station 1 (individual and team task/technique trainer) or the Urban Assault Course, IAW TC 90-1, Chap. 2, paragraph 2-22.

(4) A DRY FIRE and/or BLANK FIRE iteration will be conducted before live fire training. Personnel will not advance to live fire training if the OIC or Commander's assessment of an individual's or unit's training is not up to standard.

(5) Day live fire will be conducted before night fire is allowed; if a soldier did not

complete Day fire they will not be allowed to fire at night. Night Vision equipment referred to in subparagraph (i) will be used and any, night time training must be requested in the training packet and be implemented into the Risk Assessment. Commanders will certify Night Vision Equipment training completion by all users.

Chapter 21

Vehicle Operations

21-1 Vehicle Operations outside of Cantonment Area

a. All non-tactical vehicles travelling south of county line road, east of Durbin Street or West of School House Road must receive a Down Range Pass from Range Control prior to travelling Down Range. A one day pass will be issued and must be displayed within the vehicle at all times. Exercises lasting multiple days may obtain a long term pass but must specify an end date.

b. All tactical vehicles travelling down range must check in with Range Control and receive a hot sheet listing ranges and occupied training areas. Units will also receive an update of road closures or safety issues at this time. This is required both for safety and for area deconfliction.

c. All vehicles travelling with live Operational Ammo or utilizing blanks during convoy training must clear weapons prior to entering cantonment or FOB areas. Clearing barrels are available at the Durbin Street Gate and the Schoolhouse Gate entering post. All FOBs have clearing barrels located at the ECP. Units returning from training area roads must clear weapons prior to crossing County Line Road.

21-2 Convoy Operations involving military vehicles on civilian roads

a. All tactical vehicle convoys utilizing civilian roads must comply with all Department of Transportation (DOT), National Guard Bureau (NGB), and Defense Movement Coordinator (DMC) regulations and policies.

b. All convoy movement plans must be submitted to scheduling for tracking. All request to use the convoy gate for entering or exiting the installation must be coordinated with the Range Control Fire Desk at extension 61351.

c. Military Vehicles travelling ATTERBURY-MUSCATATUCK perimeter roads must ensure that vehicles do not exceed posted road and bridge weights and may not impede civilian or have weapons mounted.

d. All convoy movements must comply with Indiana State DMC policies regarding marking convoys, number of vehicles allowed in convoy and gaining route approval.

e. <u>Weapons are not authorized to be mounted on vehicles and personnel are</u> <u>not authorized in turrets or gunners hatches on public roads</u>. Any exceptions must have TAG authorization.

Chapter 22

Recreational Activities

22-1 Archery Deer, Small Game Hunting, Fishing, Mushroom Hunting and Trapping

a. Hunting on Atterbury-Muscatatuck is permitted and encouraged. Individuals who wish to hunt (archery deer, small game, and mushroom), fish or trap on Atterbury-Muscatatuck must adhere to the current applicable annual policy.

b. All personnel must have the required licenses and permits issued by the Department of Natural Resources. A valid hunter's safety course must be completed prior to hunting on Atterbury-Muscatatuck.

c. All personnel must obtain access authorization through Range Control prior to entering the Installation's training areas when participating in any recreational activities (including scouting). All personnel will have a hunt packet stored at Range Control and check in before hunting and out after hunting. All current DNR regulations must be followed.

d. Any individual wishing to hunt deer utilizing firearms must apply through the Atterbury-Muscatatuck Hunt-Master or Indiana Department of Natural Resources.

22-2 Physical Fitness in Training Areas

a. No physical fitness training will be conducted south of County Line Road without prior approval from Range Control. The route surrounding the Atterbury-Muscatatuck Airfield may be utilized without checking in with Range Control. However, personnel are not authorized to go around any gates or barricades.

b. Units or individuals wishing to conduct a road march, run, or bike event will first submit a route overlay and risk assessment to Range Control. Range Control will verify route does not conflict with any scheduled training prior to event.

c. All personnel conducting physical fitness training must wear reflective clothing or belt and utilize flashlights or lit marking device while downrange.

d. PT may be conducted within designated areas of the FOBs. Units must coordinate with the FOB Mayor cell for specific locations.

CA REG 385-63 TABLE 1-1

APPENDIX A

Table 1-1							
OIC/RSO appointment requirements							
Weapon system	OIC	wo	NCO	RSO! OFF	wo	NCO	
Practice hand grenades; subcaliber training devices; laser devices; firing devices; simulators & trip flares; small arms and machineguns	x	x	E6	x	x	E5	
Chemical agents and smokes ²	x	x	E6	x	x	ES	
Aerial gunnery & air defense weapons; flamethrowers; live grenades, HE grenade launchers, grenade machineguns and .50 caliber machineguns; live mines & demolitions; tank & fighting vehicle cannons; recoilless rifles.	x	x	157	×	x	E6	
Field Artillery ³	x	x	E7	x	8	86	
Mortars	x	x	E6	x	x	E6'	
ADA rockets and guided missiles.		Χ.			-X4		
Direct fire antitank rockets and missiles	x	x	E7	x	x	E6	
Live-fire exercises using organic weapons, squad through company, battery, troop.	x	x	E7	x	x	E 6	
Combined arms live-fire exercises using outside fire support, troop, battery, squad, platoon, company; or battalion and larger ³	04	RA.	NA	x	x	E?	
Use of any training area, facility, road network or parking lot7	x	ĸ	E6	x	x	E 5	

Notes:

¹ Civilians in the grade of GS-07 or above may act as OIC, and GS-05 or above or equivalent as RSO. Civilian contractors may act as OIC/RSO when approved by the installation commander and in accordance with Contract SOW.

? OIC and RSO must be nuclear, biological, and chemical (NBC) qualified when conducting NBC or smoke training.

* Use of E7s as OICs is authorized only when approved by the installation commander. Duties of the RSO are normally performed by either the battery executive officer or platoon leader.
* SRSO will be a field grade officer, CW4 or CW5 (Anny), or civilian in the grade of GS-12 or above.

⁴ OIC will be a field grade officer for CALFEX.

⁶ RSO for Marine Corps can be E5 for mortar training activities.

7 OIC for use of these areas without pyroteclinics or blanks can be E5.

Revised 10 Apr 2018



CAMP ATTERBURY COMMAND LETTER OF CERTIFICATION

UNIT HEADER

Memorandum For. Range Control, Camp Atterbury

Subject: Command Letter of Certification for period ______(scheduled date of training event)

1 References.

AR 385-83 DA Pam 385-63 CA REG 385-63 Appropriate FM/TM

This certification is required for each separate scheduled training event. Only the OIC/RSO and alternate OIC/RSO may be listed per training event. Each event must have a separate certification memorandum.

3. Locatify the following individuals have been harmed at unit level on the duties and responsibilities of an OIG and/or RSO. These personnel have also been trained and cartified at unit level on the proper operation of the weapon system, munition, or facility listed below. These individuals understand the responsibilities of being OIC/RSO and are responsible for the safety and accountability of all personnel and equipment involved. These individuals possess the required skills and experience to safety conduct range operations and irraining on the below listed facilities at Camp Attention, (must meet rank requirements of CA REG 385-63, APPENDIX A TABLE 1-1).

Last Name	First Name	Rank	Weapon System	Course of Fire/ Event	Duty
1					OIC of RSO
· · · · · ·					OIC or RSD
1					OIC or RSD
1					OIC or RSO

4. Appropriate weapon FMs and TMs will be on the range prior to range check-in and requesting a 'Hot' status. A Deliberate Risk Assessment Worksheet (DD Form 2977) will be present while signing for the facility and a copy will be present at each range/training areafacility. This form must be signed by the <u>unit commander</u> at the appropriate level, for the risk level determined. IAW Camp Attentiony Standards prior to beginning any training. In addition, OIC/RSO will possess all necessary equipment to safely unline the range, facility or training month (in mage box).

5 IAW above regulations, The OIC and RSO must have a valid range safety card issued by Camp Atterbury Range Control in their possession to complete this certification. This card is obtained by watching the Camp Atterbury Range Safety Video and passing the written test. The Range Safety Certification Card is valid for one year from the date of Issue.

5. Per DODI 1100 22 contractors may be RSO but may not serve as an OIC

7 For DOD units, this memorandum must be signed by their Battalion/Squadron Level with a minimum paygrade of Q-5 (may be an Q-4) with an assumption of command memo). Non-pyrotechnic, low risk events may be signed by Company Command 0.3 level. DOJ and civilian agencies must have a supervisor's signature.

8. Point of contact for this memorandum is

Commanding

Revised: 10 Apr 2018

.50 CAL	11.170° DI. 1768				
	TT-110 ND 110				
5.56 AND 7.62MM FIELD FIRE	LL-170 [®] RL- 180 [®]				
10M ZERO	CENTER GUN ON TARGET AT 180°				
.50 CAL/ 5.56/7.62MM FIELD FIRE	LL-170 [®] RL- 176 [®]				
10M ZERO	CENTER GUN ON TARGET AT 173®				
MK19/M249	LL-160° RL- 180°				
.50 CAL/7.62MM FIELD FIRE	LL-160" RL- 180"				
10M ZERO	CENTER GUN ON TARGET AT 170*				
MK19 TP FIELD FIRE	LL-164® RL- 176 [®]				
.50 CAL FIELD FIRE	LL-160 [®] RL-178 ^a				
7.62MM FIELD FIRE	LL-160° RL- 184°				
SMAW HE (250M), AT4 HE (50M), LAW HE (75M) (MINIMUM DISTANCE)	LL-174 [®] RL- 185 [®]				
PARALLEL TO TARGETS L & R ARE FIXED					
9MM,5.56,12 GAUGE ZERO	125 ^a				
TOW PRACTICE	LL-123® RL- 145®				
MK19 TP	LL-100° RL- 119°				
RG 01 AND RG 56 MUST NOT BE HOT WHEN	I STATION 3 IS OCCUPIED				
	10M ZERO 10M ZERO .50 CAL/ 5.56/7.62MM FIELD FIRE 10M ZERO MK19/M249 .50 CAL/7.62MM FIELD FIRE 10M ZERO MK19 TP FIELD FIRE .50 CAL FIELD FIRE .50 CAL FIELD FIRE 7.62MM FIELD FIRE SMAW HE (250M), AT4 HE (50M), LAW HE (75M) (MINIMUM DISTANCE) PARALLEL TO TARGETS L & R ARE FIXED 9MM,5.56,12 GAUGE ZERO TOW PRACTICE MK19 TP RG 01 AND RG 56 MUST NOT BE HOT WHEN				

SMALL ARMS STANDARD LEFT AND RIGHT LIMITS

APPENDIX D Environmental Awareness

Environmental Awareness

The DPTM-S has oversight responsibility for planned and conducted training to ensure that all protective measures are in place to safeguard the Atterbury environment. Environmental information and user guidance will be provided during the Pre-AT Coordination Workshop (Appendix C) and found in CA Reg 200-1. The Environmental Division of Department of Public Works is located in Building 241 on Atterbury. All personnel operating on Atterbury must adhere to the following.

1. Natural Resources

a. The Indiana Bat (Myotis sodalis) is a listed Federally Endangered Species found on Atterbury property. To facilitate maintaining compliance with the Endangered Species Act of 1973 and Army regulations, the following must be adhered to:

b. Tree cutting is prohibited without coordination with Range control and the Atterbury Environmental Office. This includes live and dead standing trees. No trees will be cut between April 1 and October 1. Sixty (60) days' notice is required to coordinate tree cutting.

c. Deploying smoke grenades in surface waters and waterways (i.e., streams, ponds, wetlands, riparian areas, etc.) is prohibited. The use of smoke near trees or surface waters shall be avoided to the maximum extent practicable and is prohibited within 36 meters of any tree greater than 3 inches in diameter at breast height (1.37 meters) between April 1 and October 1.

d. The use of HC smoke is prohibited.

e. Trees posing a hazard or impact to training shall be reported to Range Control and the Environmental Management Office. These trees shall be avoided until they can be assessed and removed by installation staff.

f. Wildlife shall be left alone when encountered. No attempt shall be made to handle live, injured, sick, or dead wildlife (i.e., bats, birds, fish, reptiles, etc.). Note the location (military grid preferred) and flag the perimeter around dead or injured bats and report to the Environmental Management Office at 812-526-1255 or 812-526-1729.

g. Mosquitoes, ticks, and other insect vectors have the potential to spread disease. Insect bites can be reduced with the use of DEET skin lotion (NSN 6840-01-1336) and Permethrin (Impregnation Kit, NSN 6840-01-3435-1237 and aerosol spray can, NSN 6840-01-2787-1336) insect repellants available through Army supply systems. Combined with a properly worn uniform, these personal pesticides afford the best available protection against insects.

2. Restricted Areas

Atterbury owns or manages several areas that are protected. Protected areas usually come with training restrictions or prohibitions. These areas include, but are not limited to, natural areas such as wetlands, cultural/historical areas such as farmsteads and cemeteries, archeological resources, landfills, and open wells/cisterns. Please be aware of the following:

a. Some protected and/or hazardous areas will be marked with Seibert Stakes, which are two feet long PVC pipes covered in red, yellow, white, and black reflective tape. These are installed at approximately eye level and designate areas as foot traffic only.

b. There are several hundred known house foundations and associated features (i.e., wells, cisterns, etc.), which should be avoided and not be disturbed in any manner. Many of the wells are open and pose a hazard to personnel. Areas marked with tape should not be entered. If an open well is encountered, place a marker in the vicinity of the well, note the military grid coordinates and report the location to Range Control (812-526-1351).

c. Collection of archaeological resources is prohibited by Federal and state regulations. Archaeological resources include any glass, ceramic, arrow points, human remains, materials associated with buildings, etc. Leave all cemeteries and archaeological sites or artifacts undisturbed. Digging and/or collecting these resources is prohibited. Violators are subject to the Uniform Code of Military Justice as well as civil penalties.

d. All digging is restricted to areas approved for digging. A permit, obtained from the Environmental Management Office, is required for any digging larger than a single two man fighting position. Applications for this permit must be received by the Environmental Management Office at least sixty (60) days in advance of your activity. Replacement of the excavated soil from where it came is required.

e. Immediately stop digging if archaeological resources are discovered. Report the location to Range Control and the Environmental Management Office (812-526-1255 or 812-526-1225). Move 30 meters away before continuing to work.

3. Waste Disposal

a. Grey water disposal from ROWPU or other sources such as field kitchens, laundry, and shower units requires sixty (60) days advance coordination with the Environmental Management Office.

b. Regulated waste disposal is dictated by Federal and state regulations. Common regulated wastes include weapon cleaning solvents, soiled patches, protective mask filters, NBC equipment, certain batteries, certain light bulbs, used oil, antifreeze, bleach, etc.

c. Never mix wastes. Keep them separated in appropriate containers to prevent spills. Non-liquid wastes should be double bagged and labeled with the contents.

d. A completed "waste turn-in" form is required for all regulated waste. This form can be obtained at Range Control and the Environmental Management Office.

e. Waste turn-in can be coordinated at the Environmental Management Office or by calling 317-771-2285.

f. Open burning is prohibited at Atterbury. Warming barrels found at training areas and ranges are only for burning clean wood obtained on the installation. Only firewood obtained from the installation is to be burned. Burning of trash or other material is prohibited. Contact the Environmental Management Office for instruction on disposal options for trash and other material.

4. Petroleum, Oil, and Lubricants (POL):

a. All POL spills, regardless of size, must be immediately reported to Range Control when south of County Line Road (812-526-1351). Contact Range Control or the Environmental Management Office for an Emergency POL Spill Response SOP.

b. All spills shall have a Spill Response Checklist completed and returned to the Environmental Management Office. Spill response checklist forms and a map

of prepositioned spill kit locations are available at Range Control and the Environmental Management Office.

(1) Fuel trucks in the cantonment area must be parked at the installation fuel point. If a different parking location is desired, coordination with the Environmental Management Office (812-526-1499 ext. 61249) and Installation Safety is required.

(2) Refueling points must be on the list of approved fueling sites. Fueling point maps are available in Range Control and the Environmental Management Office. These locations to fuel have been vetted for cultural resources, natural resources and compliance issues as well as their proximity to water. Refueling should be completed at least 30 meters from water sources, drains, ditches, etc. Alternate sites must be coordinated sixty (60) days in advance through Range Control and the Environmental Management Office.

(3) Fuel trucks must be inspected every eight (8) hours to ensure that equipment is in proper working condition and that no leaks/spills have occurred. A spill catchment basin needs to be located under the dispensing nozzle to catch any drips or releases.

(4) Secondary containment during fueling operations is required.

Questions regarding this Appendix should be directed to the Environmental Chief at 812-526-1255 or Environmental Manager at 812-526-1499 ext. 61249.

ABBREVIATIONS

AFP

Artillery Firing Point

ANG

Air National Guard

ARNG

Army National Guard

ASH

Automated Shoot House

ASP

Ammunition Supply Point

AT

Annual Training

BFV

Bradley Fighting Vehicle

CALFEX

Combined arms live fire exercise

CLS

Combat lifesaver

СМС

Commandant of the Marine Corps

CMF

Career Management Field

CSA

Army Chief of Staff

DOD

Department of Defense

DODIC

Department of Defense Identification Code

DOL **Director of Logistics DPTMS** Director, Plans, Training, Mobilization and Security DPW **Director of Public Works** DRAW **Deliberate Risk Assessment Worksheet** EOD **Explosive Ordinance Disposal** FARRP Forward Area Rearming and Refueling Point FIST **Fire Support Team** FO Forward Observer FOB Forward Operating Base FORSCOM (ARMY) Forces Command FM Field Manual FTX Field Training Exercise G/VLLD Ground/Vehicular Laser Locator Designator HAZMAT Hazardous Material ΗE **High Explosive** HEAT High Explosive Anti-Tank

HEDP **High Explosive Dual Purpose** GMG Grenade Machine Gun IBA Individual Body Armor IDT Inactive duty training IOC Installation Operations Center ITAM Integrated Training Area Management LAW Lightweight Antitank weapon LFMX Live fire maneuver exercises LFX Live Fire Exercise LRC Leader Reaction Course MACOM Major Army Command **MEDEVAC** Medical Evacuation MFP Mortar Firing Point MG Machine gun MLRS Multiple Launch Rocket System MOS Military occupational specialty

MPTR

Multi-purpose training range

NCOIC

Non-Commissioned Officer in Charge

NTV

Non-Tactical Vehicle

NVG

Night Vision Goggle

OIC

Unit Range Officer in Charge

RAAWS

Ranger Anti-Armor Anti-Personnel Weapon System

RFMSS

Range Facility Management Support System

RSO

Unit Range Safety Officer

RTLP

Range Training Land Program

SDZ

Surface Danger Zone

SMAW

Shoulder-launched multipurpose assault weapon

SPLL

Self-propelled launcher-loader

STRAC

Standards and Training Commission

TADSS

Training aids, devices, simulators, and simulations

TAG

The Adjutant General

TASC

Training Aids Support Center

ΤВ

Technical bulletin

Training Circular

TΡ

Training Practice

UCMJ

Uniform Code of Military Justice

UIC

Unit identification code

UXO

Unexploded Ordinance