

Fort Indiantown Gap Regulation 350-2

Training

Policy, Procedures
And Standards for
Training at Fort
Indiantown Gap

Army National Guard Training Center

Fort Indiantown Gap

1 Garrison Road

Annville, Pennsylvania 17003-5002

31 May 2014

FTIG REGULATION 350-2*31 MAY 2014

SUMMARY of CHANGE

FTIG REGULATION 350-2

Specifically, this revision dated, 31 May 2014 -

- **Revised - Scheduling Procedures**
- **Revised- FTIG Form 124**
- **Added - Significant information on ranges**
- **Revised- Environmental information located in Chapter 1**
- **Revised- Denial List in Appendix F**
- **Revised Simulations**

**** This is not an all encompassing list of changes to FTIG Regulation 350-2**

Army National Guard Training Center
Fort Indiantown Gap
1 Garrison Road
Annville, Pennsylvania 17003-5002

Fort Indiantown Gap Regulation 350-2

Effective 31 May 2014

Directorate of Plans, Training and Security

Range Operations



ROBERT F. HEPNER
LTC, PA Army National
Guard
Commanding

Official:

WENDY L. TRAYER
Staff Sergeant, PA Army
National Guard
Administrative Assistant to
the Commander

Summary. This regulation is a revision of a current regulation. It establishes policies and procedures for the use of ranges, training areas and simulations facilities at Fort Indiantown Gap.

Applicability. This regulation applies to all users of the Fort Indiantown Gap Range Facility Complex. Unless otherwise stated, masculine nouns and pronouns refer to both men and women.

Proponent. The proponent for this regulation is the Directorate of Plans, Training and Security for Fort Indiantown Gap.

Suggested Improvements. Users are invited to send comments and suggested improvements on a DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Chief of Plans, Operations, Training and Security, ATTN: TS-POTS, Fort Indiantown Gap, Annville, PA 17003-5002

Distribution. This publication is available in both electronic media and hard copy. The signed original is filed at the office of the Directorate of Plans, Training and Security.

History. This publication supersedes FTIG Regulation 350-2, 05 August 2011. This printing publishes changes made since that date.

Contents (Listed by paragraph and page number)

Chapter 1

General, page 1

Purpose and Scope 1-1, page 1

Definitions 1-2, page 1

Installation and Unit-Level Safety Program Guidelines 1-3, page 3

RNOIC/RSO Minimum Grade Requirements 1-4, page 7

Suspension of Authorization to Serve as RNOIC/RSO 1-5, page 8

Range Equipment and Targetry 1-6, page 8

Range Operation Hours of Operations 1-7, page 9

Range Scheduling 1-8, page 9

Mandatory Briefings 1-9, page 16

Barriers, Gate Guards, and Key Access to the Danger/Impact Areas 1-10, page 17

Range Details 1-11, page 17

Unexploded Ordnance (UXO) 1-12, page 17

Hearing Hazards 1-13, page 18

Improvised Explosive Device (IED) Training 1-14, page 18

Weather Alerts/Warnings and Emergency Messages 1-15, page 18

Privately Owned Vehicles (POVs)/Rentals 1-16, page 19

Prohibited Activities 1-17, page 19

Training In Cantonment 1-18, page 19

Blackout Drive Areas, Conditions, and Requirements (Aided or Unaided) 1-19, page 20

Bivouacking on Training Facilities 1-20, page 20

Road Network, Tank Trails, and Vehicle Operations 1-21, page 21

CBRN Training 1-22, page 21

Night Fire 1-23, page 22

Check/Ceases Fire 1-24, page 22

Mowing, Digging and Maneuver Damage on the Range Facility 1-25, page 22

Range Fires 1-26, page 23

Environmental Considerations 1-27, page 23

Accidents, Incidents, and Weapons/Munitions Malfunctions 1-28, page 25

Civilian and Law Enforcement Organizations Use of Range Facilities 1-29, page 26

Safety and Risk Assessment 1-30, page 26

Chapter 2

Range Operations, page 28

Range Operations Requirements 2-1, page 28

Communications 2-2, page 28

Medical Support 2-3, page 29

Range Clearance and Police 2-4, page 31

Research, Development, and Special Warfare Groups 2-5, page 33

Chapter 3

Ammunition and Explosives, page 34

Guidance 3-1, page 34

Definitions 3-2, page 34

Policy 3-3, page 35

Control 3-4, page 36
Transportation 3-5, page 36
Field Storage 3-6, page 37
Ammunition Supply Holding Area (AHA) 3-7, page 37
Safety 3-8, page 38
Overhead Fire 3-9, page 39
Malfunctions 3-10, page 39

Chapter 4

Direct Fire, page 40
General 4-1, page 40
Ammunition 4-2, page 40
Hand Grenades 4-3, page 40
MK19 Grenade Launcher 4-4, page 41
Anti-tank Rockets (AT4, LAW, SMAW) 4-5, page 41
Recoilless weapons 4-6, page 42
Short-Range Marksmanship (SRM) 4-7, page 42
Crew Serve Weapons (M240B, M60, M249, M2) 4-8, page 42
Live Fire Maneuver Exercises 4-9, page 42
Live Fire Shoot House (LFSH) Range 32, 4-10, page 43
Live Fire Exercise Breach Facility Range 33, 4-11, page 44

Chapter 5

Indirect Fire (NON-Paladin Operations), page 46
General 5-1, page 46
Field Artillery 5-2, page 49
Mortars 5-3, page 50
Duties of the Range Safety Officer (RSO) 5-4, page 50
Declination Information 5-5, page 51
Boundaries of Impact Area 5-6, page 51
Observation Points (Ops) 5-7, page 51
Direct and Indirect Firing Positions 5-8, page 51
Special Information 5-9, page 52
Target Boxes 5-10, page 52

Chapter 6

Indirect Fire (Paladin and M777 Operations), page 60
Paladin and M777 Firing Safety 6-1, page 60
Paladin and M777 Safety limits 6-2, page 60
Paladin and M777 Initialization 6-3, page 60
Paladin and M777 Movement 6-4, page 61
Paladin and M777 Occupation 6-5, page 61
Paladin and M777 Firing Areas (PFAs)/Position Areas for Artillery (PAAs) 6-6, page 61
Ammunition 6-7, page 62
Paladin Opening Checklist 6-8, page 62
M777 Safety AIDS 6-9, page 62

Chapter 7

- Guided Missile Firing (TOW/DRAGON/JAVELIN), page 63**
- General 7-1, page 63**
- Safety 7-2, page 63**
- TOW Specific Firing Conditions 7-3, page 64**
- DRAGON Specific Firing Conditions 7-4, page 64**
- JAVELIN Specific Firing Conditions 7-5, page 65**
- Misfires, Hang Fires, and Malfunctions 7-6, page 65**
- Anti-tank Weapons Effect Signature Simulator (ATWESS) 7-7, page 66**

Chapter 8

- Explosives and Demolitions, page 67**
- General 8-1, page 67**
- Demolition Site Scheduling 8-2, page 67**
- Safety 8-3, page 68**
- Misfire Procedures 8-4, page 69**
- Maximum Charge (MAX CHG) 8-5, page 70**
- Demolition Reconnaissance Record 8-6, page 71**
- Training New Personnel 8-7, page 71**
- Transportation and Temporary Range Storage 8-8, page 71**
- Demolition Site Clearance 8-9, page 71**
- Steel Cutting and Concrete 8-10, page 71**
- Mines 8-11, page 72**
- Explosives Ordnance Demolition (EOD) 8-12, page 72**

Chapter 9

- Lasers, page 73**
- General 9-1, page 73**
- Scheduling 9-2, page 73**
- Responsibilities 9-3, page 73**
- Air-To-ground/Ground-To-Ground Lasers 9-4, page 74**
- Safety 9-5, page 75**

Chapter 10

- Aviation Operations, page 76**
- General 10-1, page 76**
- Special Use Airspace 10-2, page 76**
- PAANG Air to Ground Range 10-3, page 77**
- Airborne Operations 10-4, page 77**
- Air Insertion/Assault Operations 10-5, page 78**
- FARP Operations 10-6, page 80**
- Unmanned Aircraft Systems/UAS Operations 10-7, page 80**

Chapter 11

- Aerial Gunnery, page 82**
- General 11-1, page 82**
- Staging Area Operations 11-2, page 82**
- Definitions 11-3, page 83**

Range Officer In Charge (RNOIC) 11-4, page 83
Communications 11-5, page 84
Minimum Flying Conditions 11-6, page 84
Night Operations 11-7, page 85
Safety 11-8, page 85
Refueling 11-9, page 85
Ammunition 11-10, page 85
Helicopter In-flight Emergencies 11-11, page 86
Aerial Gunnery Range SOP 11-12, page 88

Chapter 12

Tank/Bradley Gunnery, page 89
General 12-1, page 89
Weapons/Ammunition Authorized 12-2, page 89

Chapter 13

Virtual and Constructive Simulation Training Devices, page 90
General 13-1, page 90
Marksmanship Training Devices 13-2, page 90
Engagement Skills Trainer 2000 (EST) 13-3, page 91
Fire Arms Training Simulator (FATS IV) 13-4, page 91
Virtual Combat Operations Trainer (VCOT) 13-5, page 92
Operator Driver Simulator (ODS) 13-6, page 93
Mine Resistant Ambush Protected Egress Trainer (MET) 13-7, page 93
Common Driver Trainer (CDT) 13-8, page 94
HUMVEE Egress Assistance Trainer (HEAT) 13-9, page 94
Call For Fire Trainer (CFFT) 13-10, page 95
Mobile Close Combat Tactical Trainer (CCTT) 13-11, page 95
Virtual Battlespace 2 (VBS2) 13-12, page 95
STRYKER Mobile Gun System Advanced Gunnery Training System (MGS-AGTS) 13-13 page 96
Dismounted Soldier Training System (DSTS) 13-14, page 97
Mine Resist and Ambush Protected Virtual Vehicle Trainer (MRAP-VVT) 13-15, page 97

Chapter 14

General 14-1, page 98
Mission Training Complex 14-2, page 98
Training Branch Capabilities 14-3, page 98
Simulations Branch Capabilities 14-4, page 100

Appendix A

Description of Ranges and Facilities, page 101

Appendix B

RNOIC/RSO Command Safety Certification Certificate (Sample Memo), page 121

Appendix C

FTIG Form 214 (Request for Facilities), page 122

Appendix D

FTIG Form 124 (Request Change Form), page 129

Appendix E
Joint Use Memorandum Form, page131

Appendix F
Range/Firing Point Denial List, page 133

Appendix G
Mortar and Artillery Firing Point Safety Data, page138

Appendix H
Declination Station Data, page141

Appendix I
Designated Landing Zones, page144

Appendix J
Restricted and Off-Limits Areas, page 146

Appendix K
Range Operations Spill Response Plan, page 147

Appendix L
Explosives Firing Log, page 149

Appendix M
Request for Non-Standard Training (Sample Memo), page 150

Appendix N
Range Operations Communications Procedures, page 151

Appendix O
RNOIC/RSO Statement of Acknowledgement, page 153

Appendix P
Training Outline EST 2000/FATS IV Weapons Simulations (Sample), page 154

Appendix Q
Commander's Live Fire Shoot House Certification Letter, page 155

Appendix R
Release and Hold Harmless Agreement (Adult), page 156

Appendix R1
Release and Hold Harmless Agreement (Child), page 157

Appendix S
Non-DOD Request Letter Example, page 158

Appendix T
DOD Additional Duty Safety Appointment Letter Example, page 159

Appendix U
Non-DOD Safety Certification Letter Example, page 160

Appendix V
800MHZ Programming Procedures, page 161

Appendix W
FTIG TSC SOP, page 162

Appendix X
Situation Report (SITREP) Example, page 166

Appendix Y
Commanders Rappelling Operation Certification Letter (CROCL), page 167

CHAPTER 1

GENERAL

1-1 PURPOSE AND SCOPE

a. To prescribe procedures to be followed by all units training at Fort Indiantown Gap (FTIG) in order to ensure realistic training that will enhance combat readiness while at the same time ensuring safe operations on all ranges and training facilities.

b. This regulation supplements and supports AR 210-21, AR 385-10, AR 385-40, AR 385-63, DA PAM 385-63, NGR 385-63, AR 385-64 and all other applicable safety directives and as pertinent, field and technical manuals.

c. This regulation applies to all Department of Defense (DOD) and other authorized civilian agencies that are eligible to use range facilities and training areas on this installation.

d. Detailed information on range facilities, capabilities, and targetry is provided in Appendix A.

e. Unless otherwise approved by the Garrison Commander or the Range Management Authority, all personnel utilizing FTIG ranges and training facilities will comply with the requirements and directives prescribed in this regulation.

f. Although the instructions contained in this regulation are primarily directed toward the designated Range Officer-In-Charge (RNOIC) and Range Safety Officer (RSO), they do not relieve the unit commander, his officers, or NCOs of their inherent safety duties and responsibilities. The duty of the RNOIC and RSO is to ensure unit personnel adhere to proper procedures. It is imperative that unit officers and NCOs be thoroughly knowledgeable and competent in the performance of their duties.

1-2 DEFINITIONS

a. Check Fire Freeze. This is a command issued by Range Operations to the RNOIC or RSO in the event of a serious safety violation. All units will cease training, leave all equipment and weapons in place, and move all personnel to a central location behind the firing line or point and await further instruction from Range Operations.

b. Command Safety Certificate (CSC). Battalion Commanders (O-4 or higher with assumption of command orders) (civilian equivalent or federal GS-11 or 12) will verify all listed personnel are thoroughly trained, and demonstrate a complete knowledge of safety procedures pertaining to activities listed in Table 1-1. This document will list name, rank, last four (4) of Soldiers SSN, and qualifications of each individual. Certification is a command function and will bear the Battalion Commander's signature. Range Operations will not accept certifications without the Battalion Commander's signature. Effective time for a properly conducted training/testing program is one year minus one day. A current copy of the certification will be on file at Range Operations prior to the conduct of hazardous training activities. Command Safety Certification (CSC) is required for all hazards training and weapons systems, regardless of types of ammo used. (See Example in Appendix B).

c. Controlled Area (CA). All range and training land areas located within FTIG. Unauthorized access is strictly prohibited. Posted signs and/or locked barriers identify the boundaries and access is by authorization of Range Operations only.

d. Danger Area. That segment of the range area affected by a particular type of weapon firing. It encompasses the impact area, target area, and the buffer zone.

e. "DRY" Code. This is an alpha-numeric code issued by Range Operations which terminates a unit's authorization to conduct hazardous training.

f. Hazardous Training. This is any training activity which requires an RNOIC and RSO. RNOIC and RSO are required for any range, training facility, or training event listed in Table 1-1. This includes, but is not limited to the following:

(1) Any live firing (small arms, mortars, artillery, tanks and demolitions)

(2) NBC drills using CS or NBC training in the gas chambers

(3) Airborne operations (refer to FM 57-38 and FM 57-200)

(4) Helicopter Rappelling/Fast Roping

(5) Non-eye safe Lasing Operations

(6) Pyrotechnics

(7) CCMCK and Simunitions

g. Impact Area/Dudded. This is any area where explosive rounds or residue contact targets or target areas, with the potential for unexploded ordnance, may be found.

h. Impact Area/Non-Dudded. This is any area where non-explosive rounds, residue, or laser beams contact targets or target areas.

i. Joint Use/Co-Use Agreement. This is an arrangement between multiple units, approved by Range Operations, for the use of the same training land, range, or facility (See Appendix E).

j. Misfire. This is a complete failure to detonate by an item of explosive ordnance due to a faulty firing mechanism or element in the propelling charge or explosive train. A misfire is different from a UXO in that the warhead or projectile has not been fired and the arming system did not activate.

k. Non-Standard Training. Any use of a Range or Training Area differing from uses listed in Appendix A or any use of a Range or Training Area for activities not normally conducted at FTIG. Any questions concerning whether training is standard or non-standard should be addressed to the Installation Range Management Authority at 717-861-2152. **Requests and Composite Risk Management must be submitted NLT 45 days prior to proposed training date.** See Appendix M.

l. Occupation Time. Prior to conducting any training on FTIG, units must first request permission via radio to establish a presence in a training area or range; at this time Range Operations, will issue an occupation time.

m. Range Safety Card. Documentation issued to all those who pass the range safety test. It is valid for one year minus one day from the date of issue and must be in the possession of units RNOICs and RSOs performing those duties.

n. Range Safety Test. A written examination administered at the conclusion of the Range Safety Briefing to ensure unit RNOICs and RSOs are familiar with the installation's policies and procedures. A passing score must be achieved prior to individuals being authorized to act as an RNOIC or RSO. This test does not certify individuals to run any facilities or ranges; it is the unit commander's responsibility to certify his/her RNOIC's/RSO's capabilities.

o. Safety Violation. This is a breach of established policies and procedures which may cause or result in personal injury and/or property damage. Upon suspension, training will cease at the training facility until appointment of another certified officer. Within 24 hours of suspension, the commander who certified the officer in question will provide a letter to the Installation Range Operations Officer, providing information concerning the facts and circumstances of the incident and what actions will be taken to preclude future violations.

p. Unexploded Ordnance (UXO). This is an item of unexploded ordnance in which the fuse components have been initiated by firing but failed to detonate.

q. "WET" Code. This is an alphanumeric permission code issued by Range Operations authorizing a unit to begin hazardous training.

1-3 INSTALLATION AND UNIT-LEVEL SAFETY PROGRAM GUIDELINES

a. Installation Range Operations Officer. The Range Officer is responsible to the Garrison Commander for the control, supervision, safety, issuance, clearance, and management of all range training activities and facilities on the installation. He will maintain this regulation and installation policy current to applicable range and safety directives. Under the direction of the Chief of Plans, Operations, Training and Security (POTS) the Range Officer will:

(1) Manage and supervise Range Operations personnel and operations. Range Operations will serve as the central point of control and coordination for access to ranges, training lands and the Impact Area and the controlled air space (Restricted Airspace R5802 A/B/C/D/E). In addition, Range Operations will function as net control for range frequencies, the Range/Training Admin net, and as the emergency contact for dispatch of civilian emergency response teams (ambulance) Fire and Police for training emergencies.

(2) Oversee safety on the range facility, coordinate for range maintenance, and serve as the center of expertise for range safety. He will maintain the office of record for all historical range data.

(3) Advise and coordinate with the RNOIC to ensure the safe and efficient operation of range facilities. This includes inspections and/or supervision of firing ensuring compliance with this regulation.

(4) Make on-the-spot corrections of violations of this regulation or other applicable directives to include relieving the RNOIC/RSO when appropriate. Major violations will be reported to the Garrison Commander, FTIG.

(5) Provide safety briefings, guidance, and range orientation for RNOICs and RSOs.

(6) Investigate accidents/incidents as required.

(7) Ensure all range equipment is accounted for and maintained in a serviceable condition adequate for issue to units.

(8) Coordinate for and oversee all planning, construction, and maintenance of range facilities.

(9) Plan and initiate actions necessary to keep the range facility abreast of changing weapons systems and doctrine.

(10) Notify the Installation Safety Manager of any serious range accident or incident.

b. Installation Safety Manager/State Safety Office (SSO).

(1) Responsible for the oversight of all aspects of the FTIG safety programs.

(2) Provide assistance to the Installation Range Management Authority on hazard abatement and risk assessment.

(3) Investigate serious range accidents and incidents in accordance with AR 385-40 and file appropriate reports.

- (4) Conduct an annual review of this regulation ensuring compliance with safety regulations.
- (5) Review all range waivers prior to submission to the National Guard Bureau (NGB).
- (6) Conduct general safety briefings to all units performing Annual Training (AT), and other Non DOD entities training at FTIG.

(7) Conduct annual safety inspections of high risk training areas.

c. FTIG Police. Provide patrols when coordinated through Range Operations:

- (1) Assist and compliment physical security of all range facilities and government-owned property.
- (2) Enforce federal and state laws and Army Regulations, to include apprehension of trespassers, or any unauthorized personnel found on any ranges, training lands, or Impact Areas.

(3) Enforce applicable regulations, policies and procedures.

d. FTIG Fire Department.

- (1) Assume responsibility as Incident Commander for all fires within Cantonment.
- (2) Upon request from Range Operations, notify and ensure dispatch of emergency medical personnel to designated locations within the Range Facility.

(3) Incident Commander for any HAZMAT spills.

(4) Coordinates any air MEDEVAC requirements.

e. Environmental Office. Environmental office is responsible for the proper management of natural resources on the installation as well as compliance with applicable environmental laws and regulations. Environmental Office will assist the Garrison Commander and Range Operations staff with implementing the Integrated Training Area Management (ITAM) program to provide for the sustained, long-term use of Army training lands.

f. Unit Commanders.

(1) Unit Commanders are directly responsible for the safe operation of all range facilities and unit compliance with this regulation.

(2) The Battalion Commander (O-4 or higher with assumption of command orders) will certify in writing, by use of a CSC to Range Operations personnel authorized to serve as RNOIC and RSO (See , page 1 section 1-2 paragraph b).

(3) Commanders of all units will ensure RNOICs and RSOs are certified and have valid Range Safety Cards and are present on the training facility being utilized. Minimum grade requirements are listed in Table 1-1.

(4) All commanders appoint at least one individual responsible for and to serve as a point of contact for the commander's safety program. This individual is normally referred to as the Unit Safety Officer or NCO. This appointment must be in writing and copy provided to the Installation Safety Manager along with the Safety Officer Course certificate.

(5) Commanders will ensure that risk assessments have been reviewed, approved and signed in accordance with DA Pam 385-10. The assessments need to be available at the training locations for review by the range inspectors.

g. Range Officer In Charge (RNOIC). The unit commander has overall responsibility for the safe operation of training facilities, however; his assigned RNOIC is in charge of that facility. The RNOIC will be a commissioned, warrant, or noncommissioned officer in the grade listed in Table 1-1. The RNOIC will not be assigned additional duties while performing this duty. The RNOIC will:

(1) Ensure he and all RSOs are validated by a command safety certification memorandum, have valid Safety Cards in their possession, and an approved risk assessment on-hand.

(2) Be present at all times with proper medical coverage.

(3) Ensure he has a Range Clearance Checklist and Range Inspection Checklist from Range Operations and a copy of this regulation, all applicable equipment and applicable training references (FMs, TMs, and ARs and Range specific SOP) on-hand at the training location prior to training.

(4) Upon occupation of any range or training facility, establish 800 MHz radio communications with Range Operations and ensure it is maintained and monitored on dedicated equipment until the range/facility is cleared. Proper radio call, IAW FTIG communications procedures (Appendix N), will be made to Range Operations for permission to enter and leave any range or training area.

(5) Ensure he and the RSO know the training facility location, safe routes in and out, limits for the weapons/ordnance being used, and inform Range Operations about weapons systems, ammunition, simulators, flares, explosives, or other ordnance to be fired. RNOIC will make the final determination that it is safe to commence training.

(6) Prior to commencing training operations, conduct a safety and information briefing for all personnel on UXOs, the use of hearing and ballistic eye protection, seasonal warnings, weapons and ammunition warnings, procedures for misfires/hang fires, identify the left and right limits of the range and the importance of firing in the assigned lane (no cross fire), brief the installation boundaries and the importance of not firing over the mountains, "check-fire freeze", the installation's ammunition amnesty program (AAP), aircraft downrange, and ammunition found on post (AFOP).

(7) Ensure no live ammunition is issued to firers until they are on the firing line. Firers will not carry ammunition and weapon on to the firing line.

(8) Ensure barriers are locked and/or guards are in place, ensure medical support requirements of this regulation and the unit commander's directive are met, and the red flag/light is displayed from the range facility flag pole before requesting "WET" status. Range Operations will be notified of any cease fire exceeding 30 minutes. At completion of firing, the RNOIC will request a "DRY" time, report number of rounds fired, and give an approximate time for clearing the facility IAW Appendix N. All times and changes of status will be recorded on the Range Operations Communications Procedures sheet (appendix N).

(9) Ensure any operation taking place on the training facility not listed as "standard" in Appendix A of this regulation was cleared in advance by Range Operations and meets all requirements outlined by the Installation Range Officer.

(10) Immediately notify Range Operations of any serious situation at any training facility affecting his command and control and of all accidents and weapons/ammunition malfunctions that cannot be corrected at the operator level through immediate/remedial actions.

(11) Personally supervise procedures for misfires, hang fires, and cook-offs.

(12) Has read and signed RNOIC/RSO Statement of Acknowledgement. (Appendix O).

(13) Will inspect the training facility/range prior to use, for cleanliness and functionality, and notify Range Operations of any discrepancies immediately.

h. Range Safety Officer (RSO). Personnel assigned duties as a RSO are responsible to the RNOIC for the safe conduct of training/firing and will not be assigned additional duties while performing this function. The RSO will:

(1) Ensure weapons are at the proper firing location; only authorized ammunition, explosives, training devices, or other ordnance is used; firing settings and limits are properly set and verified; identify and control one entry/exit point to the firing line, and all weapons are inspected before firing to ensure safe operation.

(2) Check visible parts of the Impact Area, back blast area and the "down range area" for personnel or equipment before live firing. This includes placement of guards and/or barriers denying access to the impact and down range areas.

(3) Prevent improper handling of ammunition, weapons, simulators, and/or explosives.

(4) Ensure Personal Protective Equipment is worn by all personnel on the range/facility as per the training event.

(5) Ensure all medical support requirements of this regulation and the unit commander's directive are met before allowing hazardous training to commence or continue.

(6) Ensure a safety and UXO briefing is conducted for all personnel. Safe operating procedures pertaining to the weapon system and ammunition being used will be explained and all firers will be instructed on immediate action and misfire procedures. Will ensure adherence to all safeguards listed on the unit's risk assessment.

(7) Upon completion of firing verify weapons are clear to the RNOIC. In the event that a round does not detonate upon impact, UXO locations will immediately be identified to Range Operations personnel with the number and approximate location. This information will also be recorded on Range Clearance Checklist under "REMARKS".

(8) Immediately notify RNOIC of any misfires, hang fires, or cook-offs.

(9) Has read and signed RNOIC/RSO Statement of Acknowledgement (Appendix O).

i. DMVA Forestry

(1) Establish and publish Fire Danger Ratings.

(2) Assume responsibility as Incident Commander for all fires within the Range Facility.

1-4 RNOIC/RSO Minimum Grade Requirements

Weapon System/Activity	OIC ¹			RSO ¹		
	OFF	WO	NCO	OFF	WO	NCO
Practice hand grenades; sub caliber training devices; laser devices; firing devices; simulators, trip flares, and all other forms of pyrotechnics; CCMCK (SIMUNITIONS) small arms and machineguns	X	X	E6	X	X	E5
Chemical agents and smoke ²	X	X	E6	X	X	E5
Aerial gunnery & air defense weapons; live grenades, grenade launchers, and grenade machineguns; demolitions; tank & fighting vehicle cannons.	X	X	E7	X	X	E6
Field Artillery ³	X	X	E7	X	X	E6
Mortars	X	X	E6	X	X	E6
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	E6
Combined arms live fire exercises using outside fire support, troop battery, squad, platoon, or company or battalion and larger. ⁴	X	X	E7	X	X	E6
Rappel/Fast Rope operations ⁵	X	X	E7	N/A	N/A	N/A
Drop Zone (See Ch 10) ⁶	X ABN CDR	X ABN CDR	E7 ABN CDR	X DZSO	X DZSO	E6 DZSO
Non-Hazardous Training	X	X	E5	NA	NA	NA

Notes:

¹Civilians in the grade of GS-07 or above may act as OIC, and GS-05 or above for RSO and complete a pistol and rifle course by the NRA, or possess the equivalent certification (Act 120, U.S. Pistol Shooter's Association (etc.)).

²Marine Corps, must be chemical, biological, radiological, and nuclear (CBRN) MOS 5702/5711 when conducting CBRN or smoke training. Army OICs and RSOs must be chemical, , biological, radiological, and nuclear (CBRN) qualified when conducting CBRN or smoke training.

³Use of E7s as OIC is authorized by the Garrison Commander. Either the battery executive officer or platoon leader normally performs duties of the OIC.

⁴OIC will be a field grade officer for battalion or larger CALFEX.RSO will be an E7 or above.

⁵ Must have a Commanders Rappel Operations Certification Letter (CROCL) on file with Range Operations. If OIC is not a certified Rappel Master for ground or wall side training the commander must certify him to be highly trained and experienced in Rappelling and Risk Management IAW TC 25-24 and annotated on the units CROCL. For rotary wing aircraft rappelling a TRADOC certified Rappel Master must be on CROCL and present for training.

⁶OIC may be on aircraft, DZSO must be qualified IAW FM 3-21.220 (FM 57-220) Para 7-2(2)/Table 7-1.

Table 1-1

1-5 SUSPENSION OF AUTHORIZATION TO SERVE AS RNOIC/RSO

- a. RNOICs/RSOs who violate or allow for the violation of this regulation or DA-PAM 385-63 may be suspended from serving as RNOIC/RSO.
- b. Upon suspension, training will cease at the training facility until appointment of another certified officer. Within 24 hours of suspension, the commander who certified the officer in question will provide a letter to the Installation Range Officer, providing information concerning the facts and circumstances of the incident and what actions will be taken to preclude future violations.
- c. RNOIC/RSO suspended will have their Range Safety Card revoked and must attend the Range Safety Briefing and pass the Range Safety Test prior to issuance of a new Range Safety Card.
- d. Length of suspension will be determined by the Installation Range Officer.
- e. Examples of safety violations which may result in immediate suspension are:
 - (1) RNOIC/RSO not present or not in a position to control training.
 - (2) No qualified medic or litter-bearing vehicle.
 - (3) Unsafe handling or storage of ammunition or pyrotechnics.
 - (4) Failure to establish and maintain communication with Range Operations.
 - (5) Road guards not posted or performing duties as required.
 - (6) Damage, destruction, or alteration of a training facility.
 - (7) Violation of laser safety requirements.
 - (8) Conducting hazardous training without a "WET" code.

1-6 RANGE EQUIPMENT AND TARGETRY

- a. Range Operations will supply safety paddles, flags, staple guns, staples, and standard targets for range usage as shown in TC 25-8. It is a unit responsibility to ensure they have the appropriate current manuals on hand and accessible at the range facility.
- b. Units are responsible for whatever incidental materials are necessary for range usage such as score cards, flashlights, special targets, trash bags/containers, charcoal for heating of targets (thermal), and personnel hearing protection. Units must request Porta-johns directly from the Billeting Warehouse, a minimum of fifteen (15) working days prior to training by calling 717-861-2276, or fax request to: 717-861-2018.
- c. The RNOIC is responsible for all equipment signed out from Range Operations along with the equipment that belongs to a range facility. The unit must make arrangements to repair, replace, or pay for all damage or loss to range equipment and facilities in order to clear the installation.
- d. Units will cover costs incurred beyond normal wear and tear, such as damage to facilities, land and special training requirements. In addition, these missions must be cleared in advance by Range Operations.
- e. For scheduling questions about special requests, range operations, or availability of targetry or other material, contact Range Operations at 717-861-2204.

1-7 RANGE OPERATIONS HOURS OF OPERATION

Range Operations opens at 0700 and closes when all range and live-fire operations and training areas are closed or have ceased for the day and all equipment is accounted for and secure. Range Operations will conduct 24-hour operations when needed to support unit training. Normal firing hours coincide with the installation's controlled airspace hours of 0800-2300 daily.

1-8 RANGE SCHEDULING

a. All civilian organizations (Non-DOD) requesting use of Fort Indiantown Gap assets must submit a Letter of Intent (Appendix S) outlining their intentions and resources needed to the Garrison Commander for consideration. Any agency, Federal, State, Municipal, or civic organization must be prepared to pay in advance for all facilities, services, and support prior to training. Any civilian organization must provide a certificate of insurance in the amount of \$1,000,000.00 for liability coverage of its members. Non-military requests for use of ranges and training facilities will be submitted IAW Appendix C (FTIG Form 214) to POTS, FTIG Training Center as a secondary means.

b. Military Organizations will submit requests electronically through the Range Facility Management Support System (RFMSS) scheduling interface at <https://rfmss.belvoir.army.mil> as the means of requesting Ranges, Training Areas, training facilities and logistical support at Fort Indiantown Gap.

(1) Access to RFMSS can be obtained by contacting the RFMSS Program Analyst at 717-861-9353.

(2) A login and password will then be issued to the requesting individual, accompanied by instructions for use of the RFMSS website. Login and password is specific to one individual. The RFMSS Program Analyst is also available to provide onsite training.

c. No request will be processed without an accurate Facility "STRENGTH" reported. Reporting an accurate Facility "STRENGTH" has a critical impact on all phases of operations at Fort Indiantown Gap. The Facility "STRENGTH" drives staffing, funding, resource support as well as other decision drivers that impact the availability of Ranges, Training Areas and logistical resources available at Fort Indiantown Gap.

d. When requests are incomplete (for example: no Facility "STRENGTH", no weapons listed, times of firing not specified or max charge not stated) the request may be returned to the unit without action. Changes, additions, or cancellations to the submitted electronic RFMSS request or FTIG Form 214 must be annotated in RFMSS or on a FTIG Form 124 (Appendix D) and submitted to Range Scheduling.

e. Units must schedule hours of operation accurately and return unneeded or unused facilities in a timely manner.

(1) It is extremely important to cancel unneeded facilities as soon as possible to allow other units the opportunity to train. Cancellations must be promptly reported to Range Operations. **Units continually failing to cancel scheduled facilities will be reported through command channels.**

(2) The Remote Enhanced Target System (RETS) ranges are high demand facilities requiring a trained operator. To allow for maximum utilization and required support, units must schedule times as closely as possible to what is actually needed. The using unit must supply either a trained operator or personnel to be trained by the Range Operations staff. The training by the Range Operations staff will provide hands on instruction for new operators. Call 717-861-2152/2153 to coordinate training. This is a "train the trainer" course. When conducting the range the person or persons designated to be the RETS operator(s) cannot also be designated to serve as the RNOIC, RSO, or medic, but can be rotated out to participate in unit training as long as they are substituted by another trained operator.

f. Extensions to daytime firing schedules in order to night-fire will not routinely be granted and must be cleared through Range Operations.

g. Requests for facilities involving special coordination, overlays, or approval (non-standard usage of Training Facilities) must be made 45 days in advance to allow for proper coordination by unit and Range Operations staff. This includes all ranges when contractor support is needed.

h. Non-standard weapons, weapons systems, explosives, or ammunition to be fired on range facilities must be coordinated and approved in advance by the Installation Range Management Authority prior to requests being confirmed by the scheduling section. Request for non-standard training will be submitted IAW Appendix M.

i. Scheduling conflicts are based on worst case situations. Many conflicts can be resolved by use of different weapons and/or restricting firing fans. It is extremely important, therefore, to include accurate weapons and ammunition when submitting a request. Requests received without adequate information will not be processed until needed information is acquired. This delay could cause the loss of facilities due to the added coordination time involved. Make scheduling requests complete the first time.

j. All electronic RFMSS and FTIG Form 214 requests are scheduled based on four different priorities. They are:

(1) Priority 1: Mobilizing Units (mobilization orders required; not alert orders), 166th Regiment and Annual Training Units.

(2) Priority 2: Pennsylvania Army & Air National Guard Units.

(3) Priority 3: All other Guard/Reserve units (i.e. USAR, USNR, USMC, etc.).

(4) Priority 4: All other DOD Unit's and NON-DOD Organization (i.e. Active Components, ROTC/JROTC, etc.).

k. The time lines indicated in Chart 1-2 must be met to avoid conflicts and to ensure maximum use of limited resources. Requests must be submitted through the unit's chain of command, if applicable, to Range Scheduling as indicated in Chart 1-2. Range Scheduling considers the received date as the date the unit's chain of command approves the electronic RFMSS request. A unit's chain of command must approve their subordinate unit(s) electronic RFMSS request(s) no later than the time lines indicated in Chart 1-2 in order to be treated as an on-time request. If a unit submits their request as indicated in Chart 1-2 and their chain of command approves it after the timeline as indicated in Chart 1-2, then the request is considered late, and will be processed after all on time priorities.

Scheduling Training Resources for:	(PRIORITY 1) 166 th Regiment, Mobilizing, and AT Units Scheduling Window	(PRIORITY 2) Pennsylvania National Guard Units (Army and Air)	(PRIORITY 3) ALL Other Guard Units	(PRIORITY 4) ALL Other DOD Units/Organizations
1 st Quarter (October - December)	1 st Monday in April	2 nd Monday in April	3 rd Monday in April	4 th Monday in April
2 nd Quarter (January - March)	1 st Monday in July	2 nd Monday in July	3 rd Monday in July	4 th Monday in July
3 rd Quarter (April - June)	1 st Monday in October	2 nd Monday in October	3 rd Monday in October	4 th Monday in October
4 th Quarter (July - September)	1 st Monday in January	2 nd Monday in January	3 rd Monday in January	4 th Monday in January

CHART 1-2

l. Scheduling priorities will always go to the unit that meets its suspense window. High priority units that meet their suspense window will ALWAYS be resourced BEFORE lower priority units.

m. Once the suspense for Priority 4 units has passed, requests will be processed on a “First Come, First Serve” basis.

n. Our primary focus is processing on time requests and responding to on time units with confirmations. Every effort will be made to have a confirmation of training memorandum sent to the unit 30 days after each priority due date for on time requests. All late requests are processed on a “First Come, First Serve” basis. Once all on time requests have been processed and confirmed, the late request will be processed and a confirmation of training memorandum will be sent to the unit. Requesting an available facility, whether the request is on time or not, does not constitute a confirmation for the facility.

o. Every attempt will be made to accommodate scheduling resources for a deploying unit. Submitting a late request accompanied with deployment orders does not constitute automatic “scheduling priorities” and will not necessarily bump scheduled training.

p. Units should note that the last two full weeks in April and September, excluding weekends, are set aside as Range Maintenance periods. This includes all ranges and training areas, Monday through Friday. Therefore only those units with an extremely critical need will be allowed to request these facilities. This does not include simulation systems.

q. Questions regarding range facility capabilities should be communicated directly to Range Operations telephonically at 717-861-9353/2204. Every effort will be made to accommodate your training needs.

r. Requesting Additional Resources (Classes of Supply):

(1) Class I (Subsistence/Rations):

(a) Prime Vendor: Fort Indiantown Gap’s Prime Vendor supports the Pennsylvania Army National Guard mission by ordering rations for Soldiers. Additionally, the Prime Vendor supports all units, regardless of branch or component, training on Fort Indiantown Gap. Rations available include: Fresh Meal Kits, Shelf Stable Meals, Rapid Prepared Meals and “A” rations. For questions call 717-861-8230/8554.

(b) Food Service: The Fort Indiantown Gap garrison has more than 20 Army approved dining facilities designated for unit training use. Dining facilities are equipped with hard-wired equipment including: refrigerators, ranges and ovens, grills, ice machines, flat top griddles, coffee pots and cold food containers. Additional equipment may be drawn from the warehouse, please see the section on Class II supply. At present, Fort Indiantown Gap does not have a transient dining facility. Units without organic food service support should coordinate with the Food Service Section to obtain a list of caterers that units can choose from. Caterers are able to provide a variety of meals to troops and may be able to, with coordination, transport meals to the field. For more information call: 717-861-8230/8554.

(c) Military Organizations can also contact and coordinate with the Fort Indiantown Gap Community Club to obtain meal support and payment arrangements. Community Club requires an advance notice of three weeks for coordination of meal support. Questions can be directed to the Community Club at 717-861-2450, fax 717-861-2024. The Community Club is located in building 9-65.

(2) Class II (Expendables): The USPFO's warehouse provides Class II service to all units, regardless of component or branch, conducting training on the installation. Items the warehouse can assist in acquiring for units on loan or via purchase include cots, linen, cleaning supplies, food service items and various other types of field equipment needed. Pennsylvania units are responsible to provide their own class II items and non Pennsylvania Army Guard units need a MIPR to utilize the facility. For more information call: 717-861-2276.

(3) Class III (Petroleum, Oils and Lubricants [POL])

(a) Fort Indiantown Gap has a bulk fuel storage facility located at the aviation flight facility that can support fuel requirements during training missions. This facility has two fill stations that can support JP8 fuel. The fill stations are equipped with preset gallon selections, deadman emergency switches and scully overflow protection. The bottom loading points can support either the military dry break aircraft refueling adaptor or the commercial D-1 adaptor. These nozzles are for refueling the M-978 HEMTT tankers, 5,000-gallon tank trucks, and the TPU Beta pods.

(b) Military tactical and non-tactical vehicles can be refueled at a retail site, located in Area 10 which supplies JP8 fuel. It features a fuel master system (Pro-Key) that is in use at many military installations. This facility is open 24/7. For more information call: 717-861-8526

(4) Class IV (Construction and Barrier Materials): Fort Indiantown Gap does not have Class IV for usage at this time. Units must bring their own.

(5) Class V (Ammunition): The ASP is staffed and equipped to handle Class V missions and is capable of storing all classes of ammunition and explosives. An Ammunition Holding Area is available. The Quality Assurance Surveillance Ammunition Specialist (QASAS) is available to assist with quality assurance and safety in the handling, storage and transport of all Class V materials. QASAS is available to provide military units training on the handling, transportation and storage of ammunition. . Call the QASAS at 717-861-9671 for more information.

(6) Class VI (Personal Items): Most personal demand items can be purchased at the Post Exchange. For more information call: 717-861-2714/2058/2853

(7) Class VII (Major End Items):

(a) Central Wash Facility: The Central Wash Facility has the capability to clean a wide variety of military vehicles, wheeled and tracked, with a newly upgraded system. The facility is equipped with a large tank wash, a smaller wash capable of handling three vehicles at once and a 10 station general wash facility. All water from the facility is recycled. Call 717-861-2153 to make an appointment to use the facility.

(b) Transportation Motor Pool Services (TMP), located at building 11-6. The motor pool provides a limited selection of GSA vehicles (vans and buses) which are available for units conducting official government business. All drivers must have: a valid civilian and/or military driver's license, completed an authorized Defensive Driving Course (DDC), and have completed a bus driver's license prior to the issue of a vehicle. A MIPR is required. Call for current rates and availability. For more information call: 717-861-8593.

(c) Transportation Branch located in building 11-67. Moving large amounts of equipment and personnel for a training event or mobilization can be challenging. Fort Indiantown Gap's USPFO's transportation branch can assist with the process. The office assists with freight movements, container management, convoy requests, special hauling permits, contracts and provides commercial transportation services to units (buses and air), supports mobilizations with commercial transportation and more. For more information call: 717-861-8301.

(8) Class VIII (Medical):

(a) Medical Detachment is located in building 4-115. The medical detachment provides medical services to Pennsylvania National Guard Soldiers, as well as supports all troops going through the mobilization process at Fort Indiantown Gap. Services provided include: immunizations, annual medical requirements such as periodic health assessments (PHA), vision screening, HIV draws, hearing and dental exams. The medical detachment also is the medical records custodian for all Pennsylvania National Guard Soldiers. Call 717-861-2769, Call 717-861-6537 for records.

(b) Fort Indiantown Gap Troop Medical Clinic is located in building 4-114. The newly constructed Troop Medical Clinic serves ages 3 to 65. Priority is given to active duty Soldiers and Soldiers on annual training or in military school. Civilian employees are seen for emergencies and routine occupational health care. Dependents, retirees, and retiree dependents are seen on a space available basis. The medical clinic is a satellite facility of Dunham Army Health Clinic, Carlisle Barracks. Troop Medical Clinic can be reached at 717-861-2091.

(9) Class IX (Repair Parts): Fort Indiantown Gap does not have Class IX at this time. Units must bring their own.

(10) Copiers:

(a) PA-ARNG units: The DCSIM/G6 will coordinate the leasing of copiers for all PAARNG units. A written memorandum must be completed by the requesting unit, including location of Annual Training (AT) with Building Number(s), Unit Point(s) of Contact (POC), Phone Number(s) and timeframe of AT. Memorandum should be sent through the Fort Indiantown Gap Training Center to: DCSIM/G6, building 11-74, ATTN: Support Services Assistant, Fort Indiantown Gap, Annville, PA 17003-5002. Phone 717-861-6779. Upon validation of request, a DA Form 2062 will be submitted by requesting unit upon equipment pick up at building 11-74. Direct all copier requests to the Support Services Assistant.

(b) Non PA-ARNG units: Units should coordinate with their United States Property & Fiscal Office (USPFO), Comptroller, or equivalent agency to determine authorized vendors and if Copier rental is an authorized Government Purchase Card (GPC) charge.

(11) COMSEC:

(a) PA-ARNG units: 28TH INF DIV elements should coordinate through the BDE S6 or DIV G6 COMSEC Custodians for their COMSEC requirements. All other PA elements must coordinate with the PA JFHQ G6 COMSEC office. If necessary 28TH units can coordinate with the PA JFHQ G6 COMSEC office and establish a Hand Receipt Holder (HRH) Account.

(b) Non PA-ARNG agencies: All non-PA entities should coordinate with the COMSEC office for their agency. If necessary non-PA agencies can coordinate with the PA JFHQ G6 COMSEC office and establish a Hand Receipt Holder Account.

(c) To establish a HRH Account, a packet must be completed by the requesting unit/agency:

(1) A written memorandum assigning HRHs (1) Primary and at least (1) alternate are required, memorandum must be signed by the unit/agency Security Manager verifying the assignees security clearances, and also must be signed by the unit/agency commander/director authorizing the assignment.

(2) All HRHs assigned must be enrolled by their local Security Manager in the Department of the Army Cryptographic Access Program (DACAP) IAW AR 380-40. A memorandum signed by the Security Manager verifying DACAP enrollment must be provided in the packet.

(3) Included in the packet is a risk assessment conducted by the unit/agency commander/director. Also, a copy of the unit/agency COMSEC Emergency Plan and Continuity of Operations Plan (COOP). These items are mandatory IAW TB 380-41 and are inspectable items.

(4) Finally, all assigned HRHs must receive a HRH briefing form the COMSEC Custodian.

(d) Submit packets to DCSIM Operations Help Desk at ng.pa.paarng.mbx.jfhq-g6-help-desk, or call 717-861-2899. To receive a copy of the COMSEC SOP and memorandum templates contact the COMSEC Custodian at 717-861-8142, or Alt. COMSEC Custodian at 717-861-6672, or at 814-248-3138.

(12) Frequencies:

(a) PA-ARNG units: 28TH INF DIV elements should coordinate through the BDE S6 or DIV G6 Spectrum Manager for their Spectrum requirements. All other PA elements must coordinate with the PA JFHQ G6 Spectrum office. If necessary 28TH units can coordinate with the PA JFHQ G6 Spectrum office.

(b) Non PA-ARNG agencies: All non-PA entities should coordinate with the Spectrum office for their agency. If necessary non-PA agencies can coordinate with the PA JFHQ G6 Spectrum office.

(c) All units/agencies must submit a Standard Frequency Action Format (SFAF) .txt or .doc, filled out IAW MCEPUB 7, for each Spectrum-Dependent (S-D) equipment that they will require for operations. The SFAF must include:

- (1) The frequency range and number of frequencies required.
- (2) The emissions designator of all transmitters
- (3) Nomenclature of all equipment
- (4) Type and height of antenna used for all transmitters
- (5) Power output of all transmitters
- (6) Location of all transmitters by latitude/longitude or military grid
- (7) Start/stop date of the required for operations
- (8) POC information for the request
- (9) Mission name and/or reason for the requirement

(d) Submit Frequency request to DCSIM Operations Help Desk at 717-861-2899, ng.pa.paarng.mbx.jfhq-g6-help-desk. To receive a copy of the Spectrum SOP and SFAF worksheet contact the Spectrum Manager at 717-861-8142.

(13) Computer Systems:

(a) Using DOD systems not issued by PA DCSIM: PA J6 FM 2700 must be completed, listing the number of LAN drops and buildings the systems will be located in during AT. PA Accreditation form must also accompany these requests. Incoming State IAM must verify valid AUP for users, or soldiers will complete Army AUP for DOD visitor access. Packets must be submitted minimum 90 days prior to units scheduled AT. Submit packets to DCSIM Operations Help Desk at ng.pa.paarng.mbx.jfhq-g6-help-desk, or call 717-861-2899. The JFHQ DCSIM will not repair or service non PA NG Information Systems, mobile devices, or peripherals.

(b) Requesting systems from PA DCSIM: Complete DCSIM/J6 FM 2700, stating number of connections required, location, and number and type of systems required. Incoming State IAM will validate users AUP or soldiers will complete an Army AUP for computer use. Submit packets to DCSIM Operations Help Desk at ng.pa.paarng.mbx.jfhq-g6-help-desk, or call 717-861-2899. Service or repairs may be requested from NG PA Operations Help desk.

(c) MWR internet access is provided in various billeting areas across FTIG, and is not managed by PA DCSIM. For a list of buildings with wireless internet available go to www.czee.net/locations, or call 866-277-1338.

(d) Kiosk computers with internet access are available for use at DCSIM Operations Help Desk, building 11-66, 717-861-2899. Hours are 0700-1630 daily, and mission dependent during JFHQ IDT weekends. For large groups that require access, please make prior arrangements.

(e) Personal equipment will NOT connect to the PAARNG Network.

(14) Telephones:

(a) The following telephone services are available: issue/replace phones; install/move phone(s)/LAN connection(s); new/modify phone number(s). Units will request telephone service using Local Service Request (LSR) DA Form 3938. Be sure to include the number of lines required, type of service on each, duration of service, and unit POC. Provide building numbers if known. Site diagrams should be included when applicable. Telephone instruments are available for hand receipt Monday-Friday, 0800-1600, building 14-99. POC(s) at 717-861-6672 or 717-861-3431.

(b) A MIPR will be required to support circuit installation fees, line charges, and switching services costs for all agencies. A minimum of \$100 is required for a unit. Units expecting to experience heavy telephone usage should increase the amount of its MIPR accordingly. Some commands elect to provide one MIPR to cover all unit Annual Training costs. It is permissible and desirable to roll the funding set aside for unit telephone operations into such a MIPR. Negotiate MIPR amounts with the DCSIM/J6 Telecommunications Manager. POC(s) at 717-861-6672 or 717-861-3431.

(15) Reproduction: Customer will process all reproduction requests through the Chief, Support Services located in building 11-74. Phone 717-861-8671. MA-AS Form 59 (Reproduction Request) is required for each reproduction job and is available in the Publications Stockroom, building 11-74.

(16) Mail Services /Publications: Fort Indiantown Gap Mailroom and Publication Stockroom are located within the Support Services building 11-74. Mailroom Phone 717-861-8820, Publications Phone 717-861-8441. Hours of operation are Monday – Friday, 0800-1630 hrs. Each unit mail clerk will present two completed copies of DD Form 285, Roster of unit personnel, and a return (unit) address to the FTIG Mailroom for validation within 24 hours of arriving on post.

(a) Incoming mail – pick up at the FTIG Mailroom by an authorized mail orderly, or unit mail clerk at 1030 and 1500 hours, Monday through Friday.

(b) Outgoing mail – deliver to the FTIG Mailroom with proper postage when picking up Incoming mail at the times listed above.

(c) There are no mail services Saturday or Sundays.

(d) Units should ensure they have all necessary Publications, (TM's , FM's etc.). Publication Stock Room does not carry shelf stock of manuals.

(17) Visual Information requests: DSCIM J6 VI department can loan Audio /Visual equipment. There is limited capability for reproductions of maps, large plotter requests, banners, etc. DA Photos are taken T &TH 0700-1630 in building 11-66 by appointment, and at other times with prior arrangements. All VI requests are submitted online at www.vios.army.mil or call 717-821-2102.

(18) PA Video Operations: Audio and Video Conference Bridging may be requested through PA Video Operations in building 11-66, 717-861-8952.

(19) Military Interdepartmental Purchase Request (MIPR): MIPR is a method for transferring funds amongst U.S. military organizations. It allows for multi-organizational cooperative efforts to be performed, rather than limiting funding to a single organization. It is processed on a DD Form 448. For assistance with MIPRs call: G4 Budget Analyst 717-861-2418; Supply and Services Budget Analyst 717-861-8318; Accounting 717-861-8610.

(20) Portable Latrines: Units must request Porta-johns directly from Billeting Warehouse, building 11-91 a minimum of fifteen (15) working days prior to training by calling 717-861-2276, or fax request to: 717-861- 2018. Advanced party/liaison personnel must be present and physically direct the contractor to locations latrines are to be placed.

1-9 MANDATORY BRIEFINGS

Range Operations and State Safety Office conduct various types of mandatory briefings.

a. Daily Monday-Friday 0730 in building 11-9 conference room. All units conducting training Monday-Friday will attend. Example: If your unit is training on Tuesday at 2200 they will attend the briefing on Tuesday morning.

b. Weekend Coordination Briefing is conducted every Friday at 1330 in building 11-9 conference room.

(1) All units training at FTIG must have a representative present who can make decisions regarding their unit's training schedule.

(2) Failure to attend may result in suspension of all unit training activities.

(3) Range Operations will not approve additions or changes to the Range Training Schedule after this briefing, with the exception of cancellations.

c. Range Safety Briefings are conducted three times a week; at 1300 on Wednesday, 1530 on Fridays and 0700 on Saturdays. For location of briefing, call 717-861-2152/2153 for verification. Range Safety Briefings take approximately 2 hours and covers the rules and guidelines for use of all ranges, training lands and facilities on this installation including safety and environmental considerations. Part of the certification to be an RNOIC/RSO requires passing a 25-question test that remains valid for one year minus one day from the date of the test. Requests for special briefing times or locations will be approved on a case by case basis

d. Organizations scheduled for five or more days and conducting training at this installation **MUST** attend Ground Safety Brief **PRIOR** to hazardous or non-hazardous training. The Ground Safety Brief is conducted by the SSO,

building 11-9 on Tuesdays at 0900 or Fridays at 1430. Organizations are **RESPONSIBLE** to contact SSO at 717-861-8813 to schedule the briefing. Personnel attending the safety brief **MUST** be the appointed safety representative for their unit or organization. Army safety personnel must have completed the online Additional Duty Safety Course, submit a course completion certificate and a copy of the commander's appointment letter. All other military and non-military units must submit a letter identifying the safety person who is responsible to the commander or person in charge for safety.

(1) Additional Duty Safety Course, along with Composite Risk Management Basic Course and Army Accident Avoidance Training is available on the U. S. Army Combat Readiness Center (USACRC) website: <https://safetylms.army.mil>.

e. Organizations scheduled to conduct five or more days of training at this installation are **REQUIRED** and **RESPONSIBLE** to contact the Post Clinic (Bldg 4-114, at 717-861-2091/ 2716/2422) to schedule and attend a Medical Support Briefing.

f. Organizations scheduled to use Range 32 (Live Fire Shoot House), must contact Range Operations to schedule a range orientation briefing.

1-10 BARRIERS, GATE GUARDS, AND KEY ACCESS TO THE DANGER/IMPACT AREAS

a. The Dudded Impact Area is marked by warning signs and/or locked barriers and surrounded by triple strand barb wire fencing. This is an extremely hazardous area. Entry into the dudded impact area is strictly prohibited without the permission of Range Operations. Possession of a key does not, in any way, imply free access. Any individual (military or civilian) in the dudded impact area without authorization will be prosecuted for criminal trespassing. All personnel requiring access must report to Range Operations for authorization. **Entry restrictions apply to everyone without exception.**

b. All Range/Impact Area gates will be either locked or guarded by the unit using the area. Guards that are not within visual and verbal distance of the range facility must have radio communications with the range.

1-11 RANGE DETAILS

Units may be directed to supply supervised details to assist Range Operations in any of the following situations:

- a. Range operations, maintenance, and communications
- b. Help fight range fires
- c. Provide range police and cleanup
- d. Range security

1-12 UNEXPLODED ORDNANCE (UXO)

All personnel must be warned not to pick up ammunition, projectiles, flares, simulators, or any unidentified or suspicious objects that may be found. All unexploded ammunition and unidentified objects shall be considered a UXO and extremely dangerous. If a UXO or suspected UXO is found, the location should be marked (no closer than 10 meters) and reported at once to Range Operations. A unit representative who knows the exact location of the

suspected UXO will remain at the site until a Range Operations representative arrives. The removal of any ammunition whether training or live, is strictly prohibited and punishable under law. The RNOIC/RSO will brief information on UXO's during their safety briefing to all personnel prior to utilizing any training facility on FTIG.

1-13 HEARING HAZARDS

Commanders at all echelons are responsible for implementing the requirements set forth by AR 40-5 & DA PAM 385-63, on hearing conservation. Unit commanders will ensure personnel have and use appropriate hearing protective devices. RNOICs and RSOs will require all personnel in the vicinity of their range, to include FATS IV and EST simulators, to use hearing protective devices during live fire exercises. Hearing protective devices are a unit issue item. Failure to use hearing protection will result in a check fire or cease fire on that training facility.

1-14 IMPROVISED EXPLOSIVE DEVICE (IED) TRAINING

a. IED Training Aids and Devices (TADS) are available at TSC and should be utilized whenever possible (see Appendix X).

(1) All units utilizing IED TADS on FTIG need to turn in an overlay showing where the device will be used and a timeline for its employment 48 hours prior to training. Overlay must have a POC, Unit, timeline and IED locations on it. Range 39, Counter-IED Lane, is the only exception to policy when using contractor support.

b. All Non-DOD/ Fabricated Training IED will be considered Non-Standard Training.

(1) Units will be required to submit a FTIG request for Non-Standard Training Request, (Appendix M) along with a risk assessment, overlay showing where the device will be used and a timeline for its employment 48 hours prior to training. Overlay must have a POC, Unit, timeline and IED locations on it.

(2) The device will be clearly marked inert along with the owning organization's name, and never left unattended.

(3) No device will be created that produces noise, smoke or in any way becomes a pyrotechnic.

(4) Device will be dismantled and properly disposed of after training.

(5) Device will not be used on public access roads or trails.

1-15 WEATHER ALERTS/WARNINGS AND EMERGENCY MESSAGES

a. Wet Bulb readings of 78 degrees or higher will be transmitted over all Range Operations frequencies as soon as they are received and every time they are updated. Wet Bulb readings are not directive in nature, but should be passed on to the unit commander to be utilized as part of his risk assessment.

b. Severe Storm warnings will be transmitted over all Range Operations frequencies as soon as they are received and every time they are updated. Storm warnings are not directive in nature, but should be utilized as part of the unit commander's risk assessment. In certain instances Range Operations will direct necessary actions (powering down electrical equipment to safeguard soldiers lives, this may include RETS Ranges).

c. Emergency messages will be relayed to units immediately via the most expeditious method available.

1-16 PRIVATELY OWNED VEHICLES (POVs)/RENTALS

POVs and non military rentals are not allowed on any ranges or training land areas without a POV pass. Persons requesting a POV pass must coordinate through Range Operations. POV passes are not required to park along the **South Edge** of Range Road. POV passes will be issued only to Battalion Commanders and their CSMs or higher who are on AT or IDT status due to a lack of organic vehicles. A current vehicle registration, drivers license and proof of insurance will be required for a POV pass.

1-17 PROHIBITED ACTIVITIES

This list is not all-inclusive

- a. Possession of personal firearms anywhere on FTIG is strictly prohibited unless authorized by FTIG Garrison Commander.
- b. Possession and consumption of alcoholic beverages on ranges or training land area.
- c. Firing of improved conventional munitions (ICM) for training or demonstration.
- d. Firing of ammunition, pyrotechnics, missiles, and/or rockets over Ammunition Supply Points (ASPs), ammunition transfer points, field ASPs, or any ammunition storage area.
- e. Mounted training in wetlands or streams.
- f. Mounted training, bivouacking, and/or equipment training in identified scientific research areas.
- g. Firing ammunition/weapons over troops that are not cleared for overhead fire, i.e. mortars.
- h. Starting or maintaining any open fires unless authorized by Installation Range Range Operations Officer.
- i. In general the use of gas or charcoal grills is prohibited. Exceptions to this policy may be requested in writing to the Range Officer. Requests will be reviewed and approved on a case by case basis.
- j. Trespassing on privately-owned property, including in- holdings, surrounding the FTIG boundary. (Driving out Tomstown Road)
- k. Transport or storage of ammunition or explosives, to include blanks, in cantonment area.

1-18 TRAINING IN CANTONMENT

- a. The cantonment area of FTIG is not designed as an urban training area. There will be no driver's training, pyrotechnics, blanks, bivouacking and/or hazardous training conducted without prior approval by submission of a request for Non-Standard Training (Appendix M). The request for Non-Standard Training must be submitted at least 45 days prior to event. The Installation Range Operations Officer is the approving authority for all non-standard training.
- b. All units/organizations conducting training in the FTIG cantonment area must submit a daily Situation Report (SITREP) to FTIG Range Operations in order to capture personnel throughput numbers associated with training conducted within the confines of the FTIG cantonment area. SITREPS will be submitted to FTIG Range Operations, in person (building 11-9) or via email (The RFMSS Functional Administrator david.g.weigle.ctr@mail.mil or via fax (717-861-2832), no later than 0830 hours the day after training is conducted. (See Appendix Y for SITREP format.)

(1) Examples of training that require submission of a SITREP are classroom training administered by a PA JFHQ Directorate or other tenant organization on FTIG, Warrior Task Training conducted in the vicinity of an armory/building on FTIG, driver's training or road marches conducted on the road network or other areas within the FTIG cantonment area (driver's training and road marches require prior approval IAW paragraph 1-18a), New Equipment Training (NET) administered by the PA JFHQ G3 or other entity within the Area 13 motor pool or other locations within FTIG cantonment area, drill and ceremony training conducted by the Pennsylvania Army National Guard Recruiting and Retention Command or other entity within the FTIG cantonment area, combatives training, etc.

(2) The commander and/or senior leader in charge of training must ensure that proper risk management techniques are utilized and that environmental considerations are evaluated prior to and during all training events.

1-19 BLACKOUT DRIVE AREAS, CONDITIONS, AND REQUIREMENTS (AIDED OR UNAIDED)

a. Blackout drive for any single vehicle is not permitted on any hardtop road (including Ammo & McLean Roads) or any tank trail (Including North Tank Trail, South Tank Trail and Wood Road). Individual drivers may drive under blackout conditions only on secondary trails within their assigned training area. Blackout drive for a single vehicle will be limited to 10 mph and does not require an overlay.

b. Blackout Marches (BOM); TOC Displacements, Units Relocating, Night Driver Training. BOMs are permitted for more than one vehicle when the following conditions are met:

(1) Unit Movement Order and Movement Overlay must be submitted and approved by Range Operations 48 hours in advance of the movement. It is the unit's responsibility to establish a road guard and barrier plan that will restrict other movement on the established route.

(2) When conducting a BOM a clearing vehicle will be used with service lights on and operate approximately 100 meters to the front of the march unit in order to clear the way of any POV's, obstruction, or personnel.

(3) The clearing vehicle will have communication with the lead and trail vehicles of the march unit operating under blackout conditions.

(4) BOM units lead and trail vehicle will monitor Range Operations net and report start and completion of the BOM to Range Operations.

(5) BOMs are limited to 10 MPH.

c. Blackout driving, light lines and internal controls are a direct responsibility of the Commander/RNOIC assigned to a specific training area. Joint Usage agreements will specifically address any blackout drive movements.

1-20 BIVOUACING ON TRAINING FACILITIES

a. Units desiring to bivouac on training facilities must include that information on their FTIG request, marked continuous operations on the request.

b. When signing for a training facility the RNOIC needs to confirm the unit's bivouac intentions before arriving on site.

c. Units bivouacking on a training facility are required to monitor the Range Operations net until released by Range Operations.

d. No Life Support Activities in buildings on ranges/facilities. ie. Range 30

1-21 ROAD NETWORK, TANK TRAILS, AND VEHICLE OPERATIONS

- a. It is suggested the tank trail network be used as much as possible for tactical convoy and is recommended as a primary route for travel wherever feasible. Five or more vehicles constitute a convoy. Unit must submit an overlay within 48 hours of any convoy or foot march. Convoys or marches in the cantonment area must be approved by the FTIG Police.
- b. The FTIG tank trail network can be described as a loop that consists of the North and South Tank Trails. There are various smaller trails which intersect and connect these trails. There is only one tank trail that leads from the Garrison to the training corridor. The South Tank Trail/Ammo Road combination is the primary route to the western end of the installation.
- c. A minimum of two road guards will be posted at all hard top road crossings. Road guards will wear reflective blaze orange vests and during periods of limited visibility will use flashlights. Road guards will face oncoming traffic while blocking the way.
- d. Head protection (Kevlar, CVC, or ACH) will be worn by all operators per commanders directive.
- e. Bridge weight classifications will be observed.
- f. Unless specified by Range Operations, tank trails are closed to civilian traffic.
- g. Maximum Speed Limits:
 - (1) Tank trails - 15 MPH
 - (2) Convoys - 15 MPH
 - (3) Asphalt (Hardtop /Hardball) roads - as posted
 - (4) Passing troops or joggers in formation - 10 MPH
 - (5) Blackout or night-aided - 10 MPH
- h. The front and rear vehicles of a road march will have communication with each other and directly with Range Operations.
- i. Vehicles backed in or around a bivouac site or vehicle staging area will use both front and rear ground guides.
- j. All vehicles on firing ranges not involved in tactical maneuvers will be led by a ground guide.
- k. North and South Tank Trails and Weise, Ammo, Mclean and Range Roads will not be blocked or used for training events unless approved by Range Operations. Being issued a TA which encompasses one or more of the aforementioned trails or roads does not constitute unit control over the right of way.

1-22 CBRN TRAINING

- a. Units desiring to use chemical agents during training (non-live fire only) will only use Riot Control Agents (RCA). Chemical use in training will be included in the scheduling request.
- b. The use of RCA's in training is limited to CS, CSX, CS-1, CS-2, and CR. Minimum safe distance for RCA's use in training is 500 meters from the nearest heavily-traveled road or inhabited area and 1000 meters from the installation boundary. Range Operations will be notified immediately if any RCA drifts off the installation.

- c. The RNOIC and RSO for any training facility employing chemical agents will be NBC qualified. Range Operations personnel will be briefed on the NBC operation and provided a copy of the schedule of events.
- d. Only CS capsules are authorized for use in gas chambers.

1-23 NIGHT FIRE

- a. Ranges 7, 8Q, 9Q, 11Q and 35 are equipped with "blink light" systems and a Remote Enhanced Target System (RETS) with muzzle-flash simulator for night fire.
- b. All direct fire ranges must meet the following requirements prior to night firing.
 - (1) Must have left and right range fans illuminated
 - (2) Entry/exit point to firing line must be illuminated
 - (3) Flag pole must be illuminated with blinking red lights
 - (4) Unit Commanders must develop an illuminated signal plan for Range Safety to communicate with the range tower. Red and green chemical lights are recommended

1-24 CHECK/CEASE FIRE

- a. Any individual who observes a condition or unsafe act which makes firing dangerous will promptly issue a command of "Cease Fire" and alert that area by waving hand in front of face. An alternate method such as whistles or star clusters will be used for night fire. All personnel will be briefed on day and night cease-fire procedures.
- b. When a unit will be in a non-firing status for 30 minutes or more, Range Operations will be notified and the range facility will be placed on administrative check fire.

1-25 MOWING, DIGGING, AND MANEUVER DAMAGE ON THE RANGE FACILITY

- a. Modification to training facilities must be requested through and approved by Range Operations. Requests for modifications must be submitted 45 days prior to training.
- b. Mowing of ranges and training areas is done on a fixed schedule. Units may request in writing to the Range Officer to have specific areas mowed at a specific time. Requests submitted less than 60 days may not be approved. Fields will be mowed for training purposes only after being approved by the Range Officer. Mowing does not reduce tick populations and realistic training for combat does not require lawn type conditions.
- c. Requests for construction of fortifications, berms, tank traps, or other earth modifications on ranges or TA facilities must be submitted a minimum of 45 days prior to proposed training start date to the Range Officer to ensure approval. All projects with >5,000 square feet of earth disturbance, must have an approved Erosion and Sedimentation (E&S) plan. Any approved excavations greater than one acre shall have an Erosion and Sedimentation (E&S) permit for the disturbance. The area will then be back filled, seeded, and mulched prior to clearing the range or TA.
- d. The repair of maneuver damage is the responsibility of the using unit. When the damage is excessive and requires repairs by the Installation, the unit will be held accountable and billed accordingly.

1-26 RANGE FIRES

a. It is the responsibility of all personnel to exercise care and caution in the prevention of loss of life and destruction of government property by fire. Anyone observing a fire on a range or TA facility will immediately notify Range Operations on the Range Operations frequency or by any means available. The fire danger rating affects the unit's permission to use pyrotechnics and tracer rounds.

b. Because all range roads and trails are also part of the firebreak system, they will not be blocked without Range Operations permission. Approved barricades will be removed before the unit leaves the area. Range Operations will notify the FTIG Police and Fire Department of roads closed due to training, planned duration of the closure, and when roads are reopened. All fires within cantonment will be reported to FTIG Fire Department.

c. In the event a unit starts a fire, the RNOIC will immediately notify Range Operations. **The Incident Commander's (FTIG Forestry Department) approval will then be required for this unit to be released/cleared from FTIG. All fires, regardless of how started, will be reported to Range Operations. If determined necessary by FTIG Forestry Department/Incident Commander, unit personnel may be directed to assist with fire fighting by coordinating through Range Operations.**

d. When notified of a fire, Range Operations will:

(1) Notify the Forestry Department and immediately respond to the fire location to determine hazards.

(2) Coordinate and control safe entry and operation of the Forestry Department into the Impact Area if required for fire fighting.

e. **The Forestry Department is the Incident Commander** and responds to range fires as circumstances require:

(1) If the fire was reported by anyone other than through Range Operations, the Forestry Department will notify range personnel.

(2) Range Operations personnel will assist the Incident Commander to plan Impact Area routes and areas to use to control and fight the fire.

(3) If the fire is not in a hazardous area, the Forestry Department may fight the fire by whatever means they deem appropriate. **Any unit training may be required to provide personnel and/or equipment support to FTIG Forestry Department.** Range Operations personnel will monitor the situation.

(4) The Incident Commander and/or his representative will determine when and by what means the fire is suppressed and termination of the operation.

f. Failure to comply may lead to civil and criminal charges and penalties (individual and unit) under PA code. Damage to facilities and structures due to negligence will be reimbursed.

1-27 ENVIRONMENTAL CONSIDERATIONS

Proposed training activities involving actions that may have impact on the environment and/or potential disturbance to the environment must be reviewed for the potential adverse environmental impacts in accordance with the National Environmental Policy Act (NEPA) and AR 200-1 and AR 200-2. This includes construction/renovation, demolition, excavation, maintenance, DECON/water purification, water crossings, bridging operations, all staging/static operations, and bivouac.

a. Documentation of this review can take the form of a Record of Environmental Consideration (REC), Environmental Assessment (EA), or Environmental Impact Statement (EIS). Most training activities generate few, if any, environmental impacts not already considered and mitigated by existing NEPA documents. A REC/checklist will be prepared for the following:

(1) Training that involves weapon systems or equipment not previously used at FTIG.

(2) Unique training operations.

(3) Non-standard uses of training areas and ranges. The REC will be signed at the Range Coordination Briefing (see section 1-9) and forwarded to OFE-BEM-EP, Bldg O-11, Attn: NEPA coordinator.

b. Earth disturbance greater than 5,000 square feet requires a written erosion and sedimentation (E&S) plan. The E&S plan must be approved by the Lebanon or Dauphin County Conservation District if the disturbance is greater than one acre. The site to be disturbed will be pre-approved by Range Operations and the Bureau of Environmental Management.

c. All training areas require the use of portable chemical toilets. Many weapons ranges have fixed latrines or portable latrines year-round. Under no circumstances will anyone use field expedient latrines. Units will request portable toilets through Training Site Warehouse BLDG 11-91 as needed. 717-861-2276. (Non PAARNG units will request portable chemical toilets on a MIPR (Military Interdepartmental Purchase Request) through USPFO for PA)

d. Field mess and kitchen sites will dispose of waste water in gray water storage containers. (Non PAARNG units will request gray water containers on a MIPR (Military Interdepartmental Purchase Request) through USPFO for PA) If units are disposing of their gray water independently; they will utilize the manhole located at Ypers Ave and Kletzly Ave located in Area 13.

e. Units are responsible for the transport and proper disposal of garbage/trash and recyclables to designated dumpsters or collection areas within FTIG.

f. If weapons cleaning materials, such as patches or solvents, are generated when cleaning weapons at FTIG, please contact the Bureau of Environmental Management (general office number is 717-861-8181). Units will dispose of weapons cleaning materials IAW the latest version of PA ARNG's waste management plan which is also obtainable by contacting the aforementioned phone number.

g. Vehicle and equipment washing is only allowed at the Area 10 wash point 1 April thru 1 October annually when requested through FTIG Range Scheduling 717-861-2692. (A minimum of 10 wheeled vehicles for the overheads, or 5 tracked for the birdbath with a minimum of 48 hours notice.) Courtesy Hoses are available 24/7 when wash point is operable..

h. POL spills, regardless of quantity, will be immediately reported to Range Operations.

i. Relic hunting and use of metal detectors is prohibited by law on the installation. Field training exercises, construction, digging, bulldozing, clearing or grubbing activities must avoid archeological sites. Accidental discoveries of suspected historic artifacts, human remains, unmarked graves, or other archeological features will be immediately reported to Range Operations, who will inform the Bureau of Environmental Management. The site must be secured, and training is prohibited until clearance is given to continue.

j. Mounted, equipment, and/or bivouac training is prohibited in any area marked as a "Scientific Research Area"..

k. Mounted cross country training is prohibited within 25 meters of any stream, drainage swale, wetlands, or sedimentation control structure. Unauthorized training will be reported to the appropriate Government Agency that has the jurisdiction. Units are responsible for all damages and fines resulting from unauthorized vehicular traffic.

- l. Units must have at least one spill response kit on hand when occupying any training area.
- m. All natural resources are property of the Commonwealth and the removal, alteration, and/or destruction is not permitted without approval. Removal of any wild or native plant, animal, or mineral material is prohibited unless pre-approved by Range Operations and the State Environmental Office.
- n. Recyclable trash should be disposed of in designated containers.

1-28 ACCIDENTS, INCIDENTS, AND WEAPONS/MUNITIONS MALFUNCTIONS

- a. In all emergency situations, the RNOIC/RSO will call an immediate cease-fire and notify Range Operations. Emergency situations include any vehicle/weapons accident, personnel injury, and any weapons malfunctions.
- b. When an accident or malfunction involving weapons or ammunition occurs, the weapon and ammunition will be suspended from use. The RNOIC/RSO will immediately notify Range Operations who will in turn notify the Quality Assurance Specialist Ammunition Surveillance (QASAS). All associated ammunition and weapons will be maintained intact and the site preserved until released by the QASAS, ASP Manager, Range Officer, Installation Safety Manager, or other technically qualified personnel.
- c. When a weapon malfunction such as a jam or normal misfire occurs that does not result in damage or injury, notify Range Operations and take action recommended in appropriate FM's/TM's. If "immediate action" procedures fail to correct the problem, that weapon will be set aside and Range Operations will be notified of the malfunction.
- d. If a hand grenade UXO occurs on the live hand grenade range the range will be placed in a check fire status until cleared by EOD.
- e. Pyrotechnic simulator malfunctions will be handled IAW PA State Safety Office (SSO) Pyrotechnic Simulator Guide and appropriate FM/TM.
- f. The following procedure will be followed should an indirect fire unit fire outside their designated safety limit, or any unit that receives fire, or observes fire obviously outside the established impact area:
 - (1) Call an immediate check fire and notify Range Operations with the following information:
 - (a) Date and time observing the erratic round
 - (b) Extent of injury or damage
 - (c) Number of rounds observed
 - (d) Location of impact/height of burst
 - (e) Observer location, name, and unit
 - (2) All personnel will immediately fall in at the rear of the piece and ensure all weapons, ammunition, and associated equipment remains untouched until cleared by Range Operations.
 - (3) RNOICs/RSOs will collect all firing data from their weapons and fire direction centers (FDC) and provide this information to Range Operations on request.
- g. Required Reports. When reportable accidents, incidents, and injuries occur, units will conduct investigations IAW AR 385-10 and DA PAM 385-40. Copies of investigations must be **provided to POTS** prior to departure. Unit commanders will ensure DA Form 285-AB-R (Internet version available at <http://safety.army.mil>) is received by the State Safety Office no later than two (2) working days after the accident and properly file reports required by AR 75-1.

Units will provide a complete copy to Range Operations (the original may be given to Range Operations to forward to the State Safety Office). Copies of all other accident reports and investigations other than the DA 285-AB-R will be provided to Range Operations. These reports will include:

- (1) Name and rank of persons involved
- (2) Unit
- (3) Type and description of accident/incident including weapon/ammunition type and caliber
- (4) Incident location by grid and the training facility name
- (5) Name and telephone number of person to contact for further information
- (6) Time of incident
- (7) Cause
- (8) Corrective actions taken or planned by the command experiencing the accident

1-29 CIVILIAN AND LAW ENFORCEMENT ORGANIZATIONS USE OF RANGE FACILITIES

The use of FTIG range facilities by civilian and police organizations is authorized by AR 385-63. Those organizations must comply with all provisions of this regulation and AR 385-63. Civilians are required to submit a “Hold Harmless Agreement” form, prior to their being allowed access to the facilities. (See Appendix R for the form).

1-30 SAFETY AND RISK ASSESSMENT

The unit commander is the principal training officer and has overall safety responsibility for his unit. The following policies and procedures are established to permit unit commanders maximum flexibility in planning, training, and realism while providing for a safe environment for personnel and equipment.

a. Safety.

(1) The RSO will be a dedicated safety person and will be present during all hazardous operations. The RSO will not be the same person as the RNOIC.

(2) Assistant Range Safety Officers may be appointed by the RNOIC to assist the RSO in managing safety on the firing line. The Assistant Range Safety Officer does not have to be a certified safety person. Assistant Range Safety Officers must comply with AR 385-63 and cannot perform duties of RNOIC or RSO.

(3) When multiple firing locations are used and positive control by the RNOIC and RSO cannot be maintained, additional RSOs are appointed by the RNOIC. At least one dedicated RSO will be present at each firing location. When more than one safety officer is used the RNOIC will have communications with each location and establish a safety chain of command with one RSO being the Senior Safety Officer. Range Operations must be briefed and concur on how communications and safety will be handled. When utilizing multiple RSOs, Range Operations must be given the location (8 digit grid) of the RNOIC.

(4) Specific guidance for indirect fire safety requirements and personnel are contained in Chapters 5 and 6 of this regulation.

(5) The unit commander has overall responsibility for the safe operation of range facilities however his assigned RNOIC is in charge of that facility. Any conflict between the unit's chain of command and the designated RNOIC regarding this regulation and/or the safe operation of a range or facility will be immediately referred to Range Operations who is the final authority. No firing will be allowed until all problems are resolved.

(6) Range Operations personnel will make spot inspections of all training facilities. Units advised of minor safety violations will be allowed to continue training once the hazard has been corrected. Range Operations personnel will stop a unit's training activities if a serious safety violation has occurred. The RNOIC will be issued a formal written safety violation outlining the breach of established safety policies and/or procedures. The next higher headquarters in the chain of command beginning at Battalion Level will receive a copy of the violation, and **must respond in writing to FTIG Garrison Commander through the Range Officer within 24 hours of receipt**. The unit will not be allowed to continue training until correcting the cause of the violation.

(7) Range Operations personnel or safety personnel are authorized to enter any range facility or training area at any time. Guards will be so instructed and advised that admittance will be granted without passwords, special clearance, or delay. Range Operations personnel are the only individuals who are not the responsibility of the RNOIC/RSO. Range Inspectors will comply with Joint Services Command and Army Regulations in regards to wearing safety equipment/uniforms. Unit SOPs do not apply to Range Operations personnel.

(8) Any Range Operations representative may close a range facility for what he/she deems the lack of safe and correct operation of the facility.

b. Composite Risk Management. Unit commanders will ensure that a composite risk assessment is performed on all operations their unit takes part in on FTIG (IAW ATP 5-19). Units are required to have a signed copy of their Risk Management Worksheet with them on the training facility prior to the start of training. Deliberate Assessments for Combined Arms/Live Fire exercises and all non standard training (Appendix M, page 149) must be submitted to Range Operations no later than 45 days prior to the event for approval. All Deliberate Management Worksheets must be signed by the person having risk decision authority based on formal procedures and guidelines set by their chain of command and DA PAM 385-30.

c. Hazardous Wildlife/Vegetation.

(1) The most common types of hazardous wildlife/vegetation units will encounter are ticks (Lyme disease vectors), poison ivy, stinging insects and venomous snakes.

(2) Units are required to follow the DOD Insect Repellent System. Treat uniforms with IDA Kit (NSN 6840-01-345-0237) or Aerosol Spray Can, (NSN 6840-01-278-1336). Training areas can be sprayed for ticks or mosquitoes at the request of units with a minimum of 2 weeks notice.

(3) Avoid poison ivy. Wash immediately after contact to reduce negative effects.

(4) For large hornet/wasp nests or infestations, contact Range Operations to report unsafe conditions. OICs are required to make sure that allergic individuals have the necessary treatment on-hand and medics are informed and prepared.

(5) Northern copperhead and timber rattlesnakes are found at FTIG. Do not disturb snakes or any species of wildlife. Contact Range Operations to report snakes interfering with training.

CHAPTER 2 RANGE OPERATIONS

2-1 RANGE OPERATION REQUIREMENTS

In order to live-fire on FTIG range facilities the following must be accomplished:

- a. Range facility must be scheduled in advance and listed on the Range Bulletin. Unit must be in-processed onto the installation through the POTS.
- b. RNOIC/RSO must be certified by their commander in writing, briefed, and have a current Range Safety Card in his/her possession. When using the Live Fire Shoot House, or the rappel tower, a specific certification letter must also be filed prior to training (See Appendix Q).
- c. Designated unit representative signs for and draws range facility equipment and confirms the unit's firing intentions to include type of ordnance and conduct of range operations.
- d. 800 MHz communications is established on dedicated radio equipment and an alternate means of communication, such as FM 41.40 must be available if primary is down,
- e. Unit must have a current copy of FTIG Reg 350-2, appropriate FM/TMs/TCs readily accessible and Risk Assessment on site. Unit must also have the appropriate weapons safety tools/equipment on site. i.e. rods, T-blocks, safety paddles.
- f. Down range secured by locked barriers or posted guards and red flag is displayed.
- g. Medic, a dedicated vehicle to serve as an ambulance, a litter, and an aide bag must be on site.
- h. Before requesting "WET" Code, both the RNOIC and RSO must read, initial and sign Statement of Acknowledgement (Appendix O).
- i. "WET" status requested and received from Range Operations.
- j. Units must provide Ballistic Eye Protection as well as hearing protection for all personnel who will be live firing, using pyrotechnic devices, or demolitions. Units will use additional personal protection equipment as per appropriate manual.

2-2 COMMUNICATIONS

- a. The primary means of communications on FTIG ranges and training facilities is by 800MHz radio. It is a unit responsibility to provide radio equipment capable of operating on the Range Operations tactical communications net (Primary **800MHZ RINGSFTY**, Alternate FM 41.40). PAARNG units will be required to bring their own 800MHz radios. Instructions for programming can be found in Appendix W. Radio assets must be planned for in advance. Some field locations may require vehicle mounted equipment or the addition of OE254/292 antennas. USAF Aircraft Control Frequency is UHF 237.2/232.7, call sign "BALKY."
- b. On range facilities with telephones, Range Operations can be reached at 2-2152 or 2-2153. Telephones will be checked for operation upon range occupation but are for emergency back up only.
- c. Standard radio procedures will be used on all Range Operations Nets. Communication Scripts (Appendix N) are provided with Range and Training Area SOPs and must be followed when communicating with Range Operations.

d. **Range Operations frequencies will not be used for units' internal communications.**

e. Whenever units occupy any training facility, they must conduct communication checks with Range Operations every three hours. Units will conduct hourly communications checks with Range Operations upon going "WET" to conduct hazardous training. Range Operations may conduct random radio checks of units who occupy training facilities. **When primary radio contact is lost, the RTO will notify his RNOIC/RSO and the unit will place themselves in check-fire until primary communications is reestablished. The unit will notify Range Operations immediately of primary communications system failure with their secondary system.**

f. It is the responsibility of the RNOIC to establish and maintain radio communications with Range Operations on equipment dedicated for this purpose. The RNOIC ensures the radio is monitored at all times and respond to all radio checks initiated by Range Operations. After three unsuccessful attempts are made to contact any range, a Range Operations representative will be dispatched and the unit will immediately be placed in a check fire. A Range Operations representative will make a determination as to whether the problem was equipment malfunction or a violation of the monitoring requirement. If an equipment malfunction, the check fire will be lifted as soon as primary communications are reestablished. If the problem was a violation of the monitoring requirement or dedication of equipment, the RNOIC will receive a safety violation and training may be suspended indefinitely.

g. If the unit's next higher headquarters is located in an adjacent Training Area and has communications with Range Operations, direct communications with that headquarters satisfies the communication requirement for all **non-hazardous training locations**.

h. Units that require radio frequencies for internal use must contact the G6 office (See Appendix C, Section 5. b.).

2-3 MEDICAL SUPPORT

a. Training.

(1) Commanders conducting training must have medical support personnel (Healthcare Specialist [68W], National Registered Emergency Medical Technician-Basic [NREMT-B], or certified combat lifesaver) with appropriate medical equipment/supplies (litter and aide bag as a minimum) and a dedicated evacuation vehicle capable of carrying a litter.

(2) NBC training involving employment of chemical training agents requires identified medical personnel (68W, NREMT-B, or certified combat lifesaver) and have immediate access to an assigned protective mask.

(3) All waterborne training requires the unit to provide an equal number of flotation devices based on the number of soldiers training, OIC and a currently certified Red Cross Lifeguard (the 68W, NREMT-B, or certified combat lifesaver may not serve a dual role of medical support and lifeguard). If a unit determines it needs a lifeboat it may be obtained by coordinating with the MWR. An additional requirement exists for a resuscitation device, which is available through the Troop Medical Clinic or Range Operations.

(4) Units and organizations without organic medical support must coordinate through their higher headquarters for military medical support (68W, NREMT-B, or certified combat lifesaver) and required medical equipment, supplies, and designated evacuation vehicle. FTIG does not have the capacity to provide ranges with medical personnel.

(5) If a unit or organization cannot maintain medical support/coverage while conducting hazardous training the RNOIC must immediately contact range operations and cease training.

(6) IAW AR 350-41, all training requires the minimum of a 68W, NREMT-B, or certified combat lifesaver with each separate training unit.

b. Evacuation. Personnel with serious injuries (life, limb, or sight threatening) will be transported to the nearest hospital by an emergency medical civilian evacuation team. Personnel with minor injuries may be transported by the unit to the FTIG TMC, Building 4-114, or during off-duty hours, the nearest medical facility after notifying Range Operations. In the event of a minor injury where the on-site medic determines that the unit has the medical assets and transportation capability to effectively evacuate and/or treat the patient, the unit need only contact Range Operations via radio. If the unit later determines the patient requires support from the TMC (TMC hours of operation vary by day and time of year) or other medical facility, the unit must notify Range Operations.

c. **All medical emergencies on ranges and training areas will immediately be reported to Range Operations with the following information: Name, Type Injury, Gender, and if IV is initiated. Range Operations in turn will dispatch appropriate emergency response service.**

d. Emergency Services Notification. In the event of personnel sustaining serious injury (life, limb, or sight threatening) as determined by the unit medic, while in the cantonment area, emergency medical ambulance service is available by dialing 911 from a garrison/post phone only.

e. MEDEVAC Procedures. Military/civilian MEDEVAC will be used when warranted to evacuate critically injured personnel. FTIG Fire Department emergency personnel will determine if AERODEVAC is required in the absence of a credentialed medical provider. Upon their arrival at the scene, FTIG Fire Department personnel will become the incident commander. **They will direct medical treatment procedures and determine if and how to evacuate patients.**

f. Intravenous Therapy (IV). Intravenous therapy (IVs) will be initiated only if there is an imminent threat of loss of life, limb, or sight by a 68W, NREMT-B. The initiation and use of IV solutions should always be performed under the direction of a medical authority (Physician/Physician Assistant).

g. MEDEVAC Procedures.

(1) Cantonment Area. Emergency service is available by dialing extension 911 from a garrison/post phone. For cellular phones dial 911 and your call will be answered by County Dispatch. Provide the telephone number you are currently calling from, your name, exact location (Fort Indiantown Gap, Building number/Quarters number and street address or closest streets).

If NON-EMERGENCY call:

FTIG Police Force (24 hrs) 717-861-2727

FTIG Fire Department 717-861-2111

(2) Training Area. Emergency medical services will be obtained during field training (limited or no access to a post phone) through Range Operations on Range Safety Net on 800 MHz

(3) If AEROMEDEVAC is required, FTIG Fire Department emergency personnel will determine if AERODEVAC is required in the absence of a credentialed medical provider. The FTIG Fire Department and/or Emergency Medical Services personnel will prepare the patient for airlift and transport to the nearest landing zone (LZ) (Appendix I) after notification of Range Operations.

(4) FTIG Fire Department emergency personnel will secure the landing zone. The patient will be loaded under the direction of the MEDEVAC crew and LZ Safety Officer (FTIG Fire Chief).

(5) MEDEVAC requests over the radio net have precedence over all other radio traffic. Once Range Operations receives notification and request for aeromedical services all units engaged in live firing will come to a cease fire. Range Operations will provide notification of a cease fire imposed due to MEDEVAC mission and will announce an all clear to resume firing or "WET" status.

h. Multiple Training Facilities.

(1) Multiple non-hazardous training areas may be supported by a reduced amount of organic/attached medical support if **all the following conditions are met:**

(a) All training areas are adjoining.

(b) All units in those training areas are subordinate to the same higher Headquarters.

(c) The higher Headquarters (HQ) is located in one of the adjoining training areas. HQ's (10-digit grid) location will be provided to Range Operations. Any changes to HQ/TOC location must be immediately sent to Range Operations.

(d) All those units have continuous communications with that HQ.

(e) The HQ has continuous communications with Range Operations.

(f) Internal medical support personnel/equipment is physically located at that HQ.

(g) Minimum requirement is one medic/CLS/NREMT-B with all required equipment.

(2) Two Hazardous Ranges/Training Sites may be supported by a reduced amount of organic/attached medical support if **all the following conditions are met:**

(a) Both ranges/training sites are adjacent.

(b) Both units are subordinate to the same higher HQ.

(c) Required medical support personnel and equipment are physically located at one of the two sites.

(d) Minimum requirement is one medic/CLS/NREMT-B with all required equipment.

(3) If a unit conducts training with a reduced amount of medical support, and if any of the stated conditions cease to be met or if a medic is attending to a casualty, **ALL TRAINING AT ALL THE SUPPORTED SITES WILL CEASE, UNTIL ALL CONDITIONS ARE MET.**

2-4 RANGE CLEARANCE AND POLICE

a. Upon completion of training the RNOIC/RSO will have unit personnel conduct a thorough police and cleaning of the range/training facility according to the instructions contained in the Facility SOP. Use the Range Clearance Checklist as a guide. A Range Operations representative will then meet with the RNOIC to clear the facility upon request. Units will not clear post until all areas used have been policed properly, inspected, cleared, and all equipment and keys accounted for by Range Operations. If it is impossible to conduct the inspection prior to unit departure or there are still outstanding discrepancies, only a "conditional clearance" from the installation will be granted. The unit will have to make firm arrangements to promptly correct their deficiencies. Units with "conditional clearances" not correcting their deficiencies within thirty days will be reported through their chain of command and are denied future support until all deficiencies are corrected.

b. In the event a unit entering a training facility finds the area in a poor state of police, they will immediately contact Range Operations. Any unit not reporting a poorly policed area accepts responsibility for policing the area.

- c. Units will transport all trash and garbage to garrison and dispose of properly. Trash sumps will not be dug on the installation.
- d. **Units will not be cleared from ranges or training areas during periods of darkness. Coordination will be made with Range Operations to meet the next day for clearance.**
- e. All entrance, exit, and course routes must be policed and any damage repaired or reported to Range Operations.
- f. All buildings must be swept and cleaned and all power turned off IAW range facility SOP.
- g. All “fighting positions” on the firing line must be cleared and left uncovered for inspection. When inspection is complete, the unit will replace all covers.
- h. Two tied, serviceable sandbags will be maintained in front of each position. Sandbags must be neatly and uniformly stacked with end ties facing the same direction. The unit will ensure 10 serviceable sandbags are at the base of the tower prior to departure.
- i. Firing lines will be policed prior to clearing and all brass/firing residues turned into the ASP.
- j. The terrain must be restored to its original condition except when Range Operations gives permission to leave emplacements. All temporary berms, fighting positions, bunkers, and target positions must be back-filled and the terrain contour restored.
- k. Excessive maneuver damage will be repaired by the unit prior to clearance. If repair requirements are too extensive for unit repair then the unit will be billed for the cost of repairs.
- l. Broken or unserviceable range fixtures or equipment must be repaired if possible. If repair is not possible, the problem must be reported to Range Operations.
- m. The range is considered cleared when all of the following requirements are met:
 - (1) RSO verification of weapons cleared and safe.
 - (2) Dry time requested and received from Range Operations.
 - (3) Red range flag is down
 - (4) Range inspection completed by RNOIC
 - (5) Range Inspector has completed the Range Clearance Checklist and the Inspector and RNOIC have signed it.
 - (6) The Range Clearance Checklist and all range equipment are returned to Range Operations immediately after departure from the range.
- n. Clearance of large units, battalion- size or larger may, at the request of the unit and with Range Operations concurrence, is completed at the end of their training period rather than on a daily basis. This will be accomplished as follows:
 - (1) A range clearance officer (RCO) in the grade of E-7 or above will be appointed by the commander of the unit.
 - (2) At least 24 hours prior to clearance the RCO will meet with designated Range Operations personnel and they will compile a list of facilities to be cleared.
 - (3) On the day of clearance the RCO will coordinate with Range Operations and follow the clearance activities until they are completed.
- o. All IED Training devices must be policed up and accounted for.

p. Unit will ensure that all furniture is restored to original configuration in those Urban Operations type training facilities (CACTF, Conex Villages, Shoot house) that contain furniture.

2-5 RESEARCH, DEVELOPMENT, AND SPECIAL WARFARE GROUPS

a. Units or agencies desiring to fire non-standard weapons and/or ammunition will provide the Installation Range Management Authority with a non-standard training request (APP G). This may include copies of operational, safety, and weapons/ammunition characteristics manuals or information and must be on file at Range Operations prior to being cleared to fire.

b. All civilian contractors, non-government civilians, and non-US military personnel must receive permission and obtain a license from the Garrison Commander prior to occupying any part of the range facility. Permission is contingent on the receipt of a briefing from the Range Officer or his designated representative and signing a waiver of liability.

CHAPTER 3 AMMUNITION AND EXPLOSIVES

3-1 GUIDANCE

Ammunition and explosive requirements are based on AR 75-1, AR 190-11, AR 385-62, AR 385-63, AR 385-64, DA PAM 385-64, NGR 385-63, NGR 385-64, TM 9-1300-206, TB 9-1300-385, FM 3-34.214, FTIG Regulation 700-4, and field manuals for specific weapons, ammunition, and explosives. (FTIG Regulation 700-4 supersedes this chapter in the case of conflicting information).

3-2 DEFINITIONS

- a. Unexploded Ordnance (UXO). This is munitions in which the fuse components have been initiated by firing but have failed to detonate.
- b. Misfire. Failure of a primer, propelling charge of a round, rocket or guided missile ignition and/or propulsion system to function, wholly or in part.
- c. Hang fire. This is an undesired delay in functioning of a firing system. A hang fire for a rocket occurs if the propellant is ignited by the firing impulse but fails to exit the launcher within the expected time (applies to HYDRA-70 2.75 rockets).
- d. Incident. An unintentional or chance event considered likely to result in property damage or injury to personnel. In regard to ammunition and explosives, this specifically includes the suspected or detected presence of unexploded ordnance that constitutes a hazard to operations, installation, personnel or material.
- e. Malfunction. Under conditions that should not cause functioning.
 - (1) Malfunctions include hang fires, misfires, duds, abnormal functioning, and Failure of an ammunition item to function as expected when fired or launched or when explosive items function premature functioning of explosive ammunition items under normal handling, maintenance, storage, transportation, and tactical deployment.
 - (2) Malfunctions do not include accidents or incidents that result solely from negligence, malpractice, or situations such as vehicle accidents or fires. Malfunctions are divided into three classes, class A, class B, and class C.
 - (a) Class A. Malfunctions that result in death or lost-time injury, are similar to previous malfunctions that have resulted in death or lost-time injury, are judged as having had an appreciable probability of causing death or lost-time injury, or that have adverse political implications.
 - (b) Class B. Malfunctions that result in damage to major equipment that cannot be repaired at the unit level of maintenance or that result in an ammunition suspension that significantly impacts readiness or training.
 - (c) Class C. Malfunctions that are neither class A nor class B.
 - (d) Class X. Malfunctions involved any other nonperformance incidents (visual defects).
- f. Dud. An explosive munition that has not been armed as intended or has failed to explode after being armed. Units that have a dud must notify Range Operations and prepare a Preliminary Malfunction Report IAW Appendix O, FTIG Regulation 700-4.

3-3 POLICY

- a. All ammunition and explosives will be used for the purpose for which it was manufactured. Any attempt of unorthodox use or to purposely make it malfunction is prohibited.
- b. The use of nonstandard ammunition is prohibited unless approved by the Installation Range Management Authority and the Training Site QASAS in advance.
- c. The firing of improved conventional munitions (ICM) for training or demonstration is prohibited.
- d. The firing of depleted Uranium (DU) ammunition is prohibited.
- e. Live M14 mines will not be used in training.
- f. **Ammunition will not be indiscriminately fired or dumped to preclude return to the ASP.** See paragraph 1-6, FTIG Regulation 700-4 Ammunition Amnesty Program" (AFOP/AAP). The exception to this policy is Smokey Sam rockets which are issued by the case of twelve. All unpacked rockets must be expended and only full, unbroken cases returned to the ASP.
- g. Munitions containing phosphorous will not be purposely fired or dropped into any body of water on the installation.
- h. Units will not issue blank and live fire ammunition from the same location at the same time. Live rounds and blank rounds will not be transported in the same vehicle or with residue. When utilizing blank and live ammunition on the same range units will mark blank magazines with blue markings (paint, tape, etc.)
- i. Damaged, defective, or misfired ammunition that is .50 cal or smaller will be kept at least 50 meters from all other ammunition, equipment, and personnel. It will be marked or tagged in some manner and returned to the ASP with appropriate turn-in documents and reports. Any damaged, defective, or misfired ammunition larger than .50 cal will be immediately reported to ASP and Range Operations. ASP will send a representative to determine appropriate actions.
- j. Defective ammunition will not be fired. The RNOIC/RSO will report defective ammunition to Range Operations who will in turn notify the QASAS. Defective ammunition typically includes, but is not limited to:
 - (1) A significant percentage of fixed projectiles loose in their cartridge cases.
 - (2) Fuses that are loose or missing safety devices.
 - (3) Safety and/or arming devices found in an armed position.
 - (4) Ammunition showing serious deterioration, corrosion, or defects in material or workmanship.
- k. Ammunition with UXO and misfire rates equal to or greater than the standard given in AR 75-1 will be reported to the RNOIC who in turn will report the malfunction to QASAS.
- l. Ammunition will not be stored in the Cantonment Area. Only the AHA or approved field storage sites are authorized for use.

3-4 CONTROL

Ammunition and explosives shall be under positive unit control at all times. Ordnance will be guarded at all times on the installation except when stored within the confines of the installation ASP. This includes misfire or damaged ordnance.

3-5 TRANSPORTATION

a. Explosives will be transported and handled only by trained and competent personnel who are familiar with the applicable safety regulations. The load will never be left unattended and the vehicle operated with extreme care.

b. Ammunition will be transported to and from the ASP IAW Chapter 4, FTIG Regulation 700-4 and all other HAZMAT transportation regulations.

c. Once at the training area or range, ammunition may be combat loaded on tactical and combat vehicles designed for carrying ammunition. It will be transported in vehicle ammunition racks in a combat configuration, or transported by prime movers for towed artillery if properly stored in its original containers.

d. Combat uploading will be performed at a field staging area designated by Range Operations; not at the ASP.

e. Commanders will ensure uploaded combat vehicles remain on the installation and avoid troop concentrations, housing/billet areas, federal, state, and county thoroughfares, or other heavily populated areas and park at least 50feet from all other vehicles. Specifically, SR 443, Tomstown Road, Cold Springs Road and Neuin's Lane are off limits to these vehicles.

f. Vehicles involved in on post shipments of ammunition/explosives will have a driver and assistant driver, who are both HAZMAT qualified, be properly placarded, equipped with at least two Class 10-BC rated portable fire extinguishers, and will not carry any other personnel or hazardous cargo. At no time will vehicles re-fuel in the cantonment area while loaded with ammunition. The vehicle must also be equipped with chock blocks and highway warning markers.

g. Vehicles will be inspected IAW DD Form 626 to ensure they are in good mechanical condition and free of electrical shorts and fuel leaks.

h. Dunnage will be installed between the ammunition/explosives and the metal bed of the vehicle and explosives will be secured IAW approved AMC drawings to prevent shifting.

i. Ammunition compatibility must be maintained on all vehicles transporting ammunition and explosives as determined by the Joint Hazard Contamination Standard.

j. Specific precautions for use and handling of grenades will be enforced by the Range Safety Officer as follows:

(1) Handle in the manner prescribed.

(2) Treat all grenades and grenade components as live ammunition.

(3) Lift grenades by the body only. Do not remove from container any round on which the secure safety pin is not visible. Do not handle the round by the pull ring or safety pin. If grenade is packed upside down do not attempt to remove it from its container. Replace the cover and return it to the ASP.

(4) Once the safety clip/pin has been removed from a grenade, the grenade will be thrown. The safety pin will not be reinserted, nor will the handle be taped.

(5) Spent smoke pots and smoke grenades will be collected per ASP SOP and returned to the ASP.

k. If a fire occurs on a vehicle transporting ammunition/explosives on the training facility the following actions should be taken:

(1) Try to stop away from any populated area and stop traffic in both directions. Evacuate the area IAW the appropriate Emergency Response Guide. Warn vehicle drivers and all personnel to keep at least 5,000 feet away from the fire.

(2) Immediately notify Range Operations so that emergency response personnel can be dispatched.

(3) Inform emergency response personnel the cargo is explosive.

(4) If the fire involves only the engine, cab, chassis, or tires attempt to extinguish it with the fire extinguishers, water, or any other fire fighting material available. Do not attempt to extinguish burning explosives or ammunition. Once the fire spreads to the bed of the truck or the cargo, evacuate the area IAW the appropriate Emergency Response Guide, stop fighting the fire and immediately evacuate to a distance of at least 5,000 feet.

3-6 FIELD STORAGE

a. The storage of ammunition and explosives must meet the requirements of DAP 385-64 and NGR 385-64. Field storage areas will be coordinated through Range Operations. The site will be scheduled with Range Operations and will maintain two-way communications, IAW paragraph 2-2e of this regulation, as long as it is in operation.

b. White Phosphorous ammunition in field storage sites must only be stored on its base (nose up) and no closer than 100 meters to any other ammunition, explosives, or flammables.

3-7 AMMUNITION SUPPLY HOLDING AREA (AHA)

a. The use of the AHA will be coordinated through the ASP. There is no direct communication requirement with Range Operations while using this facility. A land line is available in the AHA to contact either Range Operations and or the FTIG Police in the case of an emergency. The AHA phone is 717-861-5509.

b. Units utilizing the AHA are responsible to ensure that:

(1) Each vehicle is equipped with two 10 BC fire extinguishers

(2) Each vehicle will have four "Explosive Placards" properly displayed on the front, back, and sides of the vehicle.

(3) Vehicles are properly loaded and adequate cover is provided on open bed vehicles by use of tarpaulins.

(4) A detail of no more than four personnel is permitted to accompany vehicle, the authorized unit representative (individuals listed on DA Form 1687) into the holding area. All guard personnel must be HAZMAT trained and licensed for the vehicle in case the vehicle(s) must be moved in an emergency. Unaccompanied individuals will not be permitted in the area at any time.

(5) Prior to entering the AHA the unit representative will provide adequate guard surveillance (post guards) to remain in the AHA with the vehicle(s) at all times.

(6) No refueling of ammunition laden vehicles will be permitted within the holding area. If refueling is required of an empty vehicle, the vehicle will be towed out of the holding area, at least 90 feet west on Ammo Road before the vehicle may be refueled.

(7) Do not carry fire or spark producing devices into the holding area. Smoking is prohibited. Do not have fires for heating or cooking.

(8) Bivouac areas are not permitted in the holding area. Tents to house security/guard elements from the unit may be set up on the north side of Ammo Road.

(9) Unit representative will instruct guard personnel to report on the following:

(a) Any unusual occurrence in or around the AHA or ASP

(b) Grass or forest fires in areas adjacent to the AHA

(c) Dangerous practices of personnel in the holding area (i.e. smoking and/or consumption of alcoholic beverages).

(d) Unauthorized tampering of ammunition or components.

(e) Unsecured gates, defective telephone, or defective lighting.

(f) The presence of suspicious personnel.

(10) Do not allow the accumulation of litter, packing material, and/or dunnage within the AHA.

(11) Cameras or camera flashing equipment is prohibited in the AHA.

(12) Cell phones are not permitted in the AHA.

(13) If you suspect the vehicle that you are transporting ammunition has been tampered with contact the ASP or Range Operations immediately.

(14) Compatibility of ammunition must be strictly adhered to. Therefore, any ammunition returned to the AHA to be turned into the ASP, must be segregated in the same manner as when it left the ASP.

(15) All ammunition commercial carriers are permitted in the AHA. Units are not responsible for commercial carriers.

(16) Only SSG (E-6) or above are authorized to guard CAT I or II ammunition.

3-8 SAFETY

a. Ammunition stacks will be protected from the elements by using tarps and elevated off the ground by at least 3 inches.

(1) MK-19, 40mm link HE/TP should be stored at least 65 meters to the rear of the firing line IAW TM 9-1010-230-10.

(2) All personnel not directly involved in the firing of MK -19 (Gunner, Assistant Gunner, Lane Safety, and or RSO) should be positioned at least 65 meters behind the firing line IAW TM 9-1010-230-10.

b. Only the amount of ammunition that is to be immediately fired will be unpackaged.

c. Personnel participating in exercises will wear individual protective equipment to include helmet and flak vest IAW current TM, FM, ANI and safety regulations.

d. Smoking is prohibited within 50 feet of firing pads, ammunition or ready storage sites, and weapons assembly sites. Furthermore, the possession of matches or any flame producing device while working with or transporting propellants or explosives is prohibited.

e. Ammunition storage or handling sites will not be within 50 feet of troop concentrations, or within 100 feet of any stored fuel.

f. Units live firing on Ranges 32 LFSH or 34 ISBC will need PPE with front and back plates.

3-9 OVERHEAD FIRE

Only ammunition lots listed in TB 9-1300-385 from ASP Manager or QASAS as cleared for overhead fire will be used for flanking and overhead fire. Verification of ammunition is a Unit Commander, RNOIC, and RSO responsibility. The RNOIC request for a "WET CODE" is his verification to Range Operations that the appropriate checks have been made. Range Operations must be notified in advance if the ammunition to be used is not cleared.

3-10 MALFUNCTIONS

a. In the event of a misfire, hang fire, or other Class C malfunction the RNOIC will supervise the unit Officers/NCOs who perform the actions prescribed in applicable FMs/TMs. Range Operations will be immediately notified of the situation and again when it is resolved.

b. For Class A or B malfunctions the RNOIC/RSO will:

(1) Immediately suspend firing and notify Range Operations.

(2) Ensure the weapon, ammunition, explosives, and all components involved including fragments are carefully preserved in the position and at the location occupied at the time of the incident. Nothing will be touched or disturbed until released by the Range Operations Officer, TACOM Armament Logistics Assistance Representative (LAR) or QASAS after performing a complete investigation.

(3) The RNOIC will ensure all available information is collected and promptly passed on to Range Operations for early determination of the cause and timely action to prevent similar malfunctions.

(4) Continue exercise/problem only after clearance has been granted by the Range Operations Officer or his designated representative.

c. The Range Officer or his designated representative will:

(1) Immediately contact the Installation Safety Officer, 861-8813 and the QASAS, 861-9671 and relay all known information.

(2) With the assistance of the FTIG Police Department, take control of the site and all material and residue associated with the incident as soon as possible after notification.

(3) Assist the QASAS and post safety officer in completing initial and follow on reports as required by AR 75-1 and AR 385-40.

CHAPTER 4 DIRECT FIRE

4-1 GENERAL

- a. Firing will not be permitted until communications have been established, medical requirements are met, the RNOIC and RSO are present, the red range flag is flying, and all prescribed safety and firing requirements are met.
- b. Live-fire range facilities will have one RNOIC and at least one RSO on site during all live-fire.
- c. Range Operations personnel will inspect range facilities for fired shell casings, packing material, clips, bandoleers, serviceability, and accountability of range equipment. Units will police all firing lines; uniformly position sandbags, replace damaged sandbags, and after the range inspection, replace all firing position covers. Target sheds, pits, towers, and latrines will be swept and clean, with trash policed and properly disposed, to include unserviceable cardboard target backers. Trash bags and toilet paper are a unit responsibility.
- d. On electrical ranges, target mechanisms are in the "down" position at the conclusion of the live fire training unless otherwise instructed by Range Operations. Power must be turned off to the targets.
- e. Staple guns and staples, where required, will be issued at Range Operations.
- f. Target pasters, cardboard and markers will be supplied by Range Maintenance.
- g. Standard targets for zero and qualifications are provided by Range Maintenance. Other type targets need to be coordinated with Range Operations by providing NSN, quantity desired, and training requirement. This information must be listed in the MEMO section of the RFMSS Web version. The unit's need, funding, and time constraints will determine whether they can be provided or if the unit will have to do the procurement themselves.
- h. The following ranges are equipped with the Remote Electronic Target System (RETS); ranges 7, 8Q, 9Q, 11Q, Station 3 (RG20, RG31) 34, 35, 36, 37 and 38. Use of these ranges requires designated unit personnel to attend a RETS Operator class. This is a "train the trainer" requirement. Units must contact Range Operations to coordinate for this training a minimum of ten (10) days prior to the scheduled event. In the case of an electrical storm RETS ranges will be powered down immediately.
- i. Range 36 is the only range that is set up to support THERMAL operations. Units must coordinate through Range Maintenance for charcoal.
- j. Any time there is snow or ice on electrical targets, the using unit is responsible for sweeping the targets clean prior to turning the electrical power on. The RNOIC will accompany a Range Inspector to check on the targets and ensure that they move freely prior to operation.

4-2 AMMUNITION

Ammunition will be handled according to guidance in Chapter 3 and FTIG Regulation 700-4.

4-3 HAND GRENADES

- a. Personnel handling or throwing casualty-producing hand grenades or who are within 150 meters will wear protective helmets, flak jacket/body armor, hearing protection, and Ballistic Eye protection.

- b. Once the safety pin has been pulled the grenade will, on command, be thrown. Do not attempt to reinsert the safety pin or tape the handle.
- c. Before live hand grenade training may begin all personnel must have successfully completed practice hand grenade training and display the knowledge and proficiency required for safe operation.
- d. Grenades should never be lifted or handled by the safety clip or the safety pin pull ring.
- e. If grenades are packed upside down or the safety pin is not properly in place, do not attempt to remove the grenade from its container. Replace the cover and return it to the ASP.
 - (1) If an unexploded grenade occurs call an immediate check fire and notify Range Operations.
 - (2) Personnel within 150 meters of the area containing the unexploded grenade will immediately take cover. When appropriate those personnel will move out of the 150 meter danger zone.
 - (3) The area will be secured until released by Range Operations or EOD personnel. No one will go down range or within 150 meters of the **unexploded grenade**. The RNOIC/RSO will ensure all personnel are briefed on these procedures prior to initiating live-fire.

4-4 MK19 GRENADE LAUNCHER

- a. Targets will be engaged only at ranges greater than 75 meters with TP ammunition.
- b. Targets will be engaged only at ranges greater than 310 meters with HE ammunition and only at targets within the duded impact area.
- c. All personnel will wear protective helmet, body armor/flak jacket, hearing protection, leather gloves, and Ballistic Eye protection when on the firing line or when within 65 meters of the firing line.
- d. All duds will be reported **IMMEDIATELY** by the RNOIC to Range Operations (see reporting requirements in par 3-3, sub paragraph k).
- e. Firing units are required to use the established DUD pit on the range, or establish a dud pit if none exist, 65 meters from the firing line.
- f. Firing over open hatches is not authorized. Serious injury could result in burns caused by weapon flash or by expended or ejected cartridge cases striking personnel.
- g. Never fire the MK19 grenade launcher without the feed throat assembly or POL.
- h. In the event of a runaway gun, do not try to break the ammunition belt; injury could result. Keep the weapon pointed at target area. Lower both charging handles to stop the gun.
- i. Ensure all ammunition and non-essential personnel are at least 65 meters to the rear of the firing line.

4-5 ANTI-TANK ROCKETS [AT4, LAW, SMAW]

- a. Anti-tank rocket training should be conducted IAW FM 3-23.25 and/or FM 3-23.27.
- b. Before firing, the appropriate danger zone to the rear of the launcher will be marked and cleared of personnel, equipment, and heavy foliage.
- c. All back blast areas are doubled when temperatures are below freezing.

- d. Shoulder launched rockets will have all loading, preparation for firing, and unloading accomplished only on the firing line with the muzzle pointed downrange.
- e. Rockets will not be fired over the head of troops.

4-6 RECOILLESS WEAPONS

- a. Personnel will not stand or have any portion of their body directly behind the rifle while ammunition is in the chamber during opening or closing of the breech block.
- b. All loose material including expended cartridges will be kept out of the back-blast area.
- c. Recoilless weapons will not be fired from inside buildings or within 100 meters of a vertical or near vertical backstop.
- d. Recoilless weapons will not be fired over the head of troops.

4-7 SHORT-RANGE MARKSMANSHIP (SRM)

- a. SRM should be conducted IAW FM 3-22.9.
- b. Units conducting any form of SRM training will be required to have one lane safety per firer and conduct iterations both dry and using blanks prior to executing the live fire portion. Units must also conduct daylight iterations prior to conducting limited visibility iterations.

4-8 CREW SERVE WEAPONS (M240B, M60, M249, M2)

- a. Crew Serve Weapons training should be conducted IAW FM 3-22.65 and/or FM 3-22.68.
- b. The M249 SAW is the only authorized Crew Serve Weapon on Range Road. (10 meter firing only) Weapon systems can be employed from vehicle-mounted, tripod, or bipod configurations. RNOICs and RSOs should take special consideration to ensure no engagements crest or come within 100 meters of cresting Second Mountain when firing within the corridor or Blue Mountain when firing along Range Road.

4-9 LIVE FIRE MANEUVER EXERCISES.

- a. Range 34, Automated Infantry Squad Battle Course, is the only facility that supports STANDARD live fire maneuver exercises.
- b. Live fire maneuver exercises conducted on any other facility are considered Non-Standard Training and will be handled per instructions found in Chapter 1, Section 1-2 paragraph k.
- c. Units conducting Live Fire Maneuver exercises on Range 34 are required to have one (1) lane safety (AI) per every 3-5 personnel and will conduct both dry and blank firing iterations prior to the actual Live Fire portion. Units will also conduct daylight iterations prior to conducting limited visibility iterations.
- d. All firers will have qualified on their weapon within one (1) year of the exercise and units are advised to use a progressive training program from team to squad prior to the actual Live Fire exercise.

- e. All firers and range cadre will wear helmets, body armor with front and back plates, hearing protection and ballistic eye protection. If units are unable to obtain plates through their own supply channels, they may coordinate with Range Operations to obtain them.
- f. Specific requirements for this range can be found in the Range 34 SOP. Contact Range Operations for this information.

4-10 LIVE FIRE SHOOT HOUSE (LFSH) RANGE 32

- a. Range 32 is an advanced, zero degree Surface Danger Zone (SDZ), 2-story, indoor live firing training facility for precision close quarter combat operations.
- b. Weapons authorized are pistols thru .45cal and M4/M16 or equivalent rifles. M249 SAW and shotguns are not authorized. Tracers, commercial paint ball and M855A1 ammunition are PROHIBITED! No smoke or pyrotechnics are authorized inside the LFSH.
- c. Ammunition authorized is standard ball and SRTA for all weapons authorized and CCMCK ammunition.
- d. Battalion Commanders or higher, civilian equivalent will appoint and certify, in writing (Command Safety Certification (CSC)), that the RNOIC and RNSO are competent in live fire training for the weapon systems being used and in LFSH operations.
- e. Special Requirements:
 - (1) Active participants, “shooters,” must have qualified with their assigned weapons(s) within 12 months of the conduct of LFSH training.
 - (2) Active participants, “shooters,” must conduct SRM training (Phase I: Reflexive Fire, Phase II; Target Discrimination Training, and Phase III: SRM Qualification, Phase IV is not required) with their assigned weapon(s) within six months of the conduct of LFSH training.
 - (3) Active participants, “shooters,” must have participated in Urban Operations training within six months of the LFSH training.
 - (4) An individual must be designated as a Master Trainer and meet one of the following qualifications: successfully completed the FTIG LFSH Trainer Course or equivalent, or have served as a RNOIC, RSO, or AI three or more times for previous LFSH exercises. In addition, to be qualified as a Master Trainer the designated individual must be recognized by the commander as a subject matter expert in LFSH operations.
 - (5) Select range cadre personnel RNOIC(s), RSO(s), AI(s) and Master Trainer(s) must have attended FTIG LFSH Orientation Brief within 12 months of LFSH training.
 - (6) Commander must state this in writing (see APPENDIX Q) that these requirements have been fulfilled.
- f. Range 32 requires one (1) AI per 3-5 personnel. All firers will conduct one (1) dry and one (1) blank iteration prior to actual live fire iteration.
- g. Units planning on live firing in limited visibility with night vision devices in the LFSH must complete a SRM training exercise in those conditions. Limited visibility training needs to be approved in writing by the first O-6 in the chain of command. For live fire with protective masks, all requirements above also need to be adhered to.
- h. All firers and range cadre will wear the following PPE; ACH/Kevlar, Ballistic Eyewear, Body armor with front and back plates and hearing protection.

i. Specific requirements for this range can be found in Range 32 (LFSH) SOP. Contact Range Operations for this information.

4-11 LIVE FIRE EXERCISE BREACH FACILITY (LFEBF) RANGE 33

a. Range 33 is a Live Fire Exercise Breach Facility designed to provide training needed to fight and defeat an enemy in an urban environment. This facility is used for mechanical breaching, ballistic breaching, explosive breaching and thermal breaching. The Breach facility is configured into three different sections, door and window breaching and wall building area for demolition of concrete or brick structures.

b. Explosive breaching is limited to the various types of charges as listed in Chapter 7, FM 3-34.214. Units desiring to try any other type of explosive breaching techniques must submit a Non-Standard training request 45 days prior to the training. Unit will complete an Explosives Firing Log (FTIG Form 350-5-250, found in Appendix L) and a Demolition Reconnaissance Record (DA Form 2203-R) at least 48 hours prior to training.

c. **AMMUNITION AUTHORIZED:** Standard breaching ammo for shotguns, **12 GA, BREACHING, M1030; DODIC AA54 and 12 GA, #00 Buckshot 3”;** **DODIC AA60. Double hearing protection is required when firing Breaching round.**

d. Battalion Commanders or higher, civilian equivalent will appoint and certify, in writing (Command Safety Certification (CSC)), that the RNOIC and RNSO are competent in live fire training for the weapon systems and demolitions being used in live fire breaching operations.

e. Special Requirements:

(1) Mechanical breaching is authorized on windows, pre-fabricated breach doors and doors brought by using unit.

(2) Explosive breaching is authorized on windows, prefabricated doors, free standing wall and materials brought by the unit with Range Operations prior approval.

(3) Ballistic breaching may be authorized on prefabricated doors with prior approval from Range Operations; is limited to the **12GA, BREACHING round only.**

(4) Thermal breaching is authorized for **exothermic and oxy-acetylene torches only.**

(5) All charges, shots and ballistic breaching need to be directed north towards Ammo Road.

(6) Stand-off distance for personnel will be determined using the formula $D(\text{ft}) = K \times W^{1/3}$ where D = distance, K = a constant (the K factor for explosive entry techniques is set at 18) and the $W^{1/3}$ = cube root of weight of the explosives in pounds.

(7) Fragmentation standoff will equal the blast standoff when a protective barrier is provided between the explosive and the personnel. This barrier may be in the form of wood, cement, metal, or a ballistic blanket barrier. The barrier must be able to absorb all fragmentation.

(8) All personnel within the fragmentation distance of a detonation will wear appropriate protective gear. For the Army, all personnel will wear approved protective helmets, IBA ballistic eye protection and single hearing protection.

f. Unit's are responsible for clean-up after use. The dumpster on site is to be used for debris created from the demo charges; not for ANY demolition material. i.e. shock tube, expended igniters.

g. The only vehicles authorized in the LFEBF are C2 vehicles and Ambulance/Casualty Evacuation vehicles. All other vehicles need to be parked outside of the complex in the parking lot off of Ammo Road.

h. Specific requirements for this range can be found in Range 33 (LFEBF) SOP. Contact Range Operations for this information.

CHAPTER 5

INDIRECT FIRE (NON- PALIDIN OPERATIONS)

5-1 GENERAL

a. The FTIG indirect fire impact area, training land and range facility consists of over 11,000 acres and 120 miles of roads and trails. Unit training potential is additionally enhanced by the installation's ability to provide multiple target areas and observer locations that allow large shifts between targets, platoon engagements, direct-fire, live-fire hip shoots, and raids which meet mission and doctrine requirements.

b. All safety procedures established in FM 6-50 (Field Artillery Cannon Battery) Chapter 11 (Safety Procedures) and MCWP 3-1.6.2.3 are strictly enforced.

c. Minimum requirements for indirect fire safety personnel:

(1) RNOIC for the firing unit (one per firing position).

(2) RNOIC and RSO dedicated for safety at each firing point. Split unit operations require a separate RNOIC and RSO for each point.

d. Indirect fire used in support of maneuver forces conducting live-fire exercises are considered non-standard training events and must comply with paragraph 1-2 k and Appendix M.

e. Only the amount of ammunition needed for a fire mission will be removed from its container. Final protective fires (FPF), Time-on-target (TOT), and other dedicated ammunition may be prepared in advance according to unit SOP, but must comply with applicable regulations.

f. **Altering fuses is prohibited.**

g. Forward Observers (FO) will have a copy of the safety limits, must be able to observe the rounds impact, and will maintain record of fire for each mission.

h. Units will not fire rounds impacting less than 800 meters from unprotected personnel without Range Operations permission. Units will ensure observer locations are, as directed in AR 385-63, outside the prescribed surface danger areas A, B, or C of their target areas.

i. Whenever firing points are occupied with artillery munitions, regardless of firing status, a red flag will be flown and communications with Range Operations will be maintained. Direct communications are required during "WET" status. Units bivouacking on site will maintain three-hour radio checks with Range Operations every day they remain on the range facility. Units will maintain communications with Range Operations at all times while on the range facility to include convoy movements.

j. Two aiming devices must be used. The only two acceptable means to determine direction fire is the Aiming Circle or the GLPS. Artillery and mortars will use two aiming circles.. The two means must be declinated and agree within 10 mils.

k. At least one weapon must be within 100 meters of the survey marker. The aiming circle may be considered a weapon in meeting this requirement.

l. **Use of weather balloons must be requested a minimum of 2 weeks out for approval by the Range Operations Airspace Manager due to the potential altitude restrictions.**

m. Units with survey capabilities:

(1) May further extend or relocate firing positions to suit their requirements.

(2) May fire from anywhere on the Impact Area side of Blue Mountain, west of Route 443, provided they properly coordinate with Range Operations for use of the area.

(3) Will coordinate with Range Operations for all position changes made under paragraph items (1) and (2) above and the locations and/or modifications will be verified and approved by Range Operations prior to live-fire.

(4) Will be given a target box approximately two weeks prior to their scheduled training LFX. The unit is then responsible to construct and maintain a firing chart at the firing position. This chart will be available for inspection by Range Operations personnel as deemed necessary. The unit will verify the Target Box during the Range Operations Coordination Meeting. Units failing to verify their Target Box will not be allowed to fire.

(5) Firing will not be conducted during limited visibility when round impacts cannot be observed. When radar is being used, an FO is still required at the Observation Point (OP) to confirm the impact by sound in case of radar malfunction.

n. Units without survey capabilities:

(1) Will only use the safety data provided in Appendix H of this regulation.

(2) Will be given a fan or target box by Range Operations prior to their scheduled LFX.

(3) The unit will verify their fan size during the Range Coordination briefing. The unit will construct and maintain a firing chart at the firing location. This chart will be available for inspection by Range Operations personnel as deemed necessary. Units failing to verify their fan will not be allowed to fire.

o. Before clearance to fire is requested, a "Safety T" will be prepared showing deflections, minimum and maximum elevations, minimum fuse setting for time fuses, and applicable firing point. A separate "Safety T" will be prepared for each charge to be fired. The "Safety T" must be updated after registration and when new meteorological data is received. The "Safety T" must reflect the current safety diagram. All safety officers and firing battery supervisors will have a "Safety T" with them during firing.

p. It is the RNOIC's responsibility to ensure that a correct safety diagram is on a chart in the fire direction center and each firing piece has a "Safety T" available. The officer responsible for the operation of the Fire Direction Center (FDC) will have the safety card data showing on the firing charts and entered in the computer as appropriate.

q. Hip Shoots:

(1) Dry shoots may be conducted anywhere the unit is scheduled to operate and do not require an overlay.

(2) Live shoots must be conducted from surveyed positions or any position meeting the requirements of paragraph n above, that are scheduled and have approved safety data that meets the requirements of either paragraph "n" or "o" above. All standard safety requirements apply.

r. When winds exceed 15 knots or the Fire Danger Rating exceeds Moderate, Shell Illuminating, White Phosphorous and Smoke will not be fired without Range Operations permission.

s. Supervision of Safety Procedures for Misfires/Hang Firers/Malfuncions. When a weapon fails to fire, personnel must follow specific procedures outlined in appropriate FM, TM, and unit SOP for the type weapon and ammunition being fired. The Field Artillery Executive Officer and the Mortar Platoon Leader must know and follow standard misfire procedures to safely resolve the situation. The RNOIC is responsible for overseeing the safe and proper application of these procedures. Range Operations will be immediately notified by the RNOIC/RSO whenever

any type of misfire/hang fire/malfunction occurs. Weapons/ammunition malfunctions will be handled according to guidance in Chapter 3.

t. **While firing mortar and field artillery, all piece settings will remain as last announced until a subsequent command is given by the FDC.**

u. Indirect Firing:

(1) It is the unit's responsibility to contact Range Operations 45 Days in advance of the firing date to ensure coordination. If an approved overlay is needed, it will have a control number assigned to it that must be given as part of the RNOIC request to go wet.

(2) Firing will be conducted so as to have all rounds impact within limits approved by Range Operations.

(3) Units who inadvertently shoot out of their prescribed safety fan will immediately put themselves into "check fire freeze" and contact Range Operations.

v. Excess propellant:

(1) Will not be transported.

(2) Mortar units will store excess propellant in a wood or metal box at least 25 meters outside the mortar pit or vehicle position. Prior to clearing the firing position, propellant will be disposed of in accordance with procedures outlined in FM 6-50 and/or MCWP 3-1.6.23, Chapter 10, section 10-7 paragraph e and Range Operations will be notified.

(3) Field Artillery units will remove excess propellant to a position 30 to 40 feet from the nearest weapon or ammunition. Prior to clearing the firing position, it will be disposed of in accordance with procedures outlined in FM 6-50 and/or MCWP 3-1.6.23, Chapter 10, section 10-7 paragraph e and Range Operations will be notified.

w. All range gates will either be locked or guarded. It is the responsibility of individuals using range gates to lock the gates behind them. Units desiring free access while conducting tests or exercises may coordinate with Range Operations to leave gates unlocked. At sites where access must be controlled, the unit will be tasked with providing guards who will be instructed to prohibit the entrance of unauthorized vehicles or personnel. **The RNOIC must utilize road guards/barricades to control access into Surface Danger Area Echo while unit is in a "WET" status.**

x. Impact Area buffer zones and target area definitions:

(1) Buffer zones are computed by adding either areas A or B, and 8 or 12 "Probable Errors" (PE) depending on direction of fire and position of troops. Units will not engage targets in the buffer zone. The buffer zone provides an outside border to the target area.

(2) General: Controlled firing areas are established to contain activities which, if not conducted in a controlled environment, would be hazardous to nonparticipating aircraft. The controlled firing area shall be used for those activities which are either of short duration or of such a nature that they could be immediately suspended on notice that such activity might endanger nonparticipating aircraft.

(3) Altitudes: R5802B's maximum altitude is 13,000 feet above Mean Sea Level (MSL). Therefore, the designated altitude of the CFA extends vertically from ground surface to 13,000 feet MSL inclusive. This is the usable amount of airspace available to the firing unit.

5-2 FIELD ARTILLERY

- a. The RNOIC may be the unit commander or his command safety certified direct representative. The RNOIC is responsible for all aspects of safety in the firing unit and at the assigned firing position.
- b. The RNOIC for field artillery will be a commissioned officer or enlisted in the grade E-7 or above.
- c. The RSO duties for field artillery units are normally performed by the Battery Executive Officer. The RSO may however, be a command safety certified E6 or above.
- d. Ammunition:
 - (1) It is understood that all artillery ammunition fired is cleared for overhead fire and not restricted or suspended. Range Operations must be notified in advance of firing, if ammunition to be used is not cleared for overhead fire so arrangements can be made to control access to Area D.
 - (2) Verification of ammunition is a Unit Commander, RNOIC, and RSO responsibility. The RNOIC request for "wet status" is his verification to Range Operations that all ammunition has been cleared for overhead fire.
 - (3) Improved Conventional Munitions (ICM) ammunition will not be fired on FTIG.
 - (4) Field Storage: Field Storage will be IAW paragraph 3-6 of this Regulation.
- e. Units desiring to high angle fire must notify Range Operations of their intentions at least 24 hours in advance of firing. Any Quadrant with a maximum ordinate in excess of 13,000 feet MSL must be coordinated with Range Operations. Any unit that plans to fire above 13,000 feet MSL must contact the Airspace Manager 30 days prior to training.
- f. Direct fire, "Killer Junior", and the use of Shell Beehive will be specified in the request for range facilities.
- g. Punched rounds must be reported to Range Operations. Units may not punch rounds until first advising Range Operations of the situation. Do not attempt to re-fire punched rounds until inspected by QASAS and authorized to re-fire.
- h. Report damaged fuses, torn propellant bags, wet propellant bags, grease, foreign matter or signs of deterioration to the QASAS through Range Operations for inspection.
- i. Excess supplementary charges should be returned to the ASP in the containers from which the proximity fuses have been removed. Remark the container appropriately.
- j. Under no circumstances will green bag and white bag charges be assembled together for firing. A critical malfunction could result.
- k. Never load a propellant charge into firing chamber by increments. Only fully assembled charges will be used. This applies to GREEN and WHITE bags only.
- l. Fuses **MUST BE** set to the appropriate "SAFE" position prior to turn-in to the ASP. The QASAS can provide a listing of all fuse settings upon request.

5-3 MORTARS

a. At no time will mortars fire over troops or equipment. Flanking fire must be approved in advance by Range Operations and handled according to guidance in paragraph 1-2 k and in Appendix M. **Maximum range for the charge being used must not exceed the maximum distance listed on the approved overlay.**

b. Units with Mortar Fire Control System (MFCS) capabilities can execute training IAW Chapter 6 of this regulation with exceptions. Coordinate with Range Operations NLT 45 days prior for maneuver boxes/routes and safety box information. To utilize the MFCS for maneuver box/hip shoots units will ensure that:

(1) The FDC operator will have completed the BN-level FDC Certification within 6 months of live firing.

(2) The safety fan MUST be inputted into the MFCS.

(3) No firing hip shoots MANUALLY unless within 100 meters of an established firing point.

(4) Unit must have a copy of the Certification Roster reflecting the semi-annual certification of the mortar personnel on-hand.

c. If the number of Duds in the same lot exceeds 5%, cease firing that lot and report the information to Range Operations IAW paragraph 3-3 sub-paragraph k.

d. Misfires will be handled according to FM, TM, and unit SOP procedures. If still unable to fire the round, replace safety pins, repackage the round in its original container, and return it to the ASP:

(1) If unable to replace safety pin, keeping the fuse pointed up, gently move the round a safe distance downrange (at least 50M). Place the round in the designated DUD pit in such a way that the fuse is maintained in a vertical position (fuse up) and call Range Operations.

(2) If you have a hung round that you are unable to remove from the barrel do not try to force it out. Carry the barrel facing down-range, a safe distance (at least 50M) away from all troops and equipment. Lay it on the ground, next to the DUD pit with the barrel pointing down-range and report it to Range Operations.

5-4 DUTIES OF THE RANGE SAFETY OFFICER (RSO)

The RSO will as a minimum:

a. Verify the safety diagram and safety cards are on hand and correct for the unit, time, and place. The RSO will compare safety data with the FDO and maintain a copy of each section's safety data. He will verify the "Safety T" for each section is accurate and in the possession of the section chief.

b. Verify the lay of the weapons with a properly declinated instrument.

c. Verify correct firing position location, referred deflection, positioning of collimator and/or aiming posts, XO's Min QE, ammunition to be fired, and all other necessary items and procedures are accomplished prior to live firing.

d. Ensure that pre-fire safety checks are properly performed on each weapon and that ammunition lots are separated to avoid firing of mixed lots.

e. Verify in the weapon log book that a bore scope has been performed within the required time period for that weapon.

f. Visually check for parallel lay and supervise the emplacement of safety aids such as stakes, tape, etc.

- g. Verify WET code has been obtained.
- h. Ensure all required safety checks are performed and complied with so all rounds impact in the designated area. On the spot corrections will be made and the RSO/XO immediately be informed of the situation.
- i. Supervise the safe and proper burning of all unused propellant increments or charges after firing is completed at each position.

5-5 DECLINATION INFORMATION

- a. Aiming circles must be declinated prior to use. The declination station is located in Training Area A-16B. Aiming circles will be re-declinated after an electrical storm.
- b. Units with compasses will declinate them using the Indiantown Gap Military Installation Map and the FM 3-22.90 procedures (Appendix H) (M2 compasses will not be used as the sole means to lay in a mortar/artillery firing position to lay for live fire).
- c. Declination station azimuth information marks (AZ MK) are found in the FTIG Trig List book.

5-6 BOUNDARIES OF IMPACT AREA

Boundary of the impact area is found on the Indiantown Gap Military Installation Map. The boundary as noted is only for reference and will not be used to determine firing limits or safety of personnel.

5-7 OBSERVATION POINTS (OP's)

- a. Locations and Descriptions:

NUMBER	FEATURE	IMPACT AREA	GRID
OP-9	Open w/berm	Main	UK 5890276545
OP-11	Wooded w/wall	Main	UK 5933776262
OP-13	Wooded w/bleachers	Main	UK 5840575630

- b. OPs have three basic requirements for use:
 - (1) All targets must be plotted a minimum of 800 meters from the OP.
 - (2) The OP for mortars must be completely outside the mortar SDZ.
 - (3) Range Operations must approve use of OPs prior to occupation.
- c. All observation posts may be jointly used for observation by firing units without special coordination.

5-8 DIRECT AND INDIRECT FIRING POSITIONS

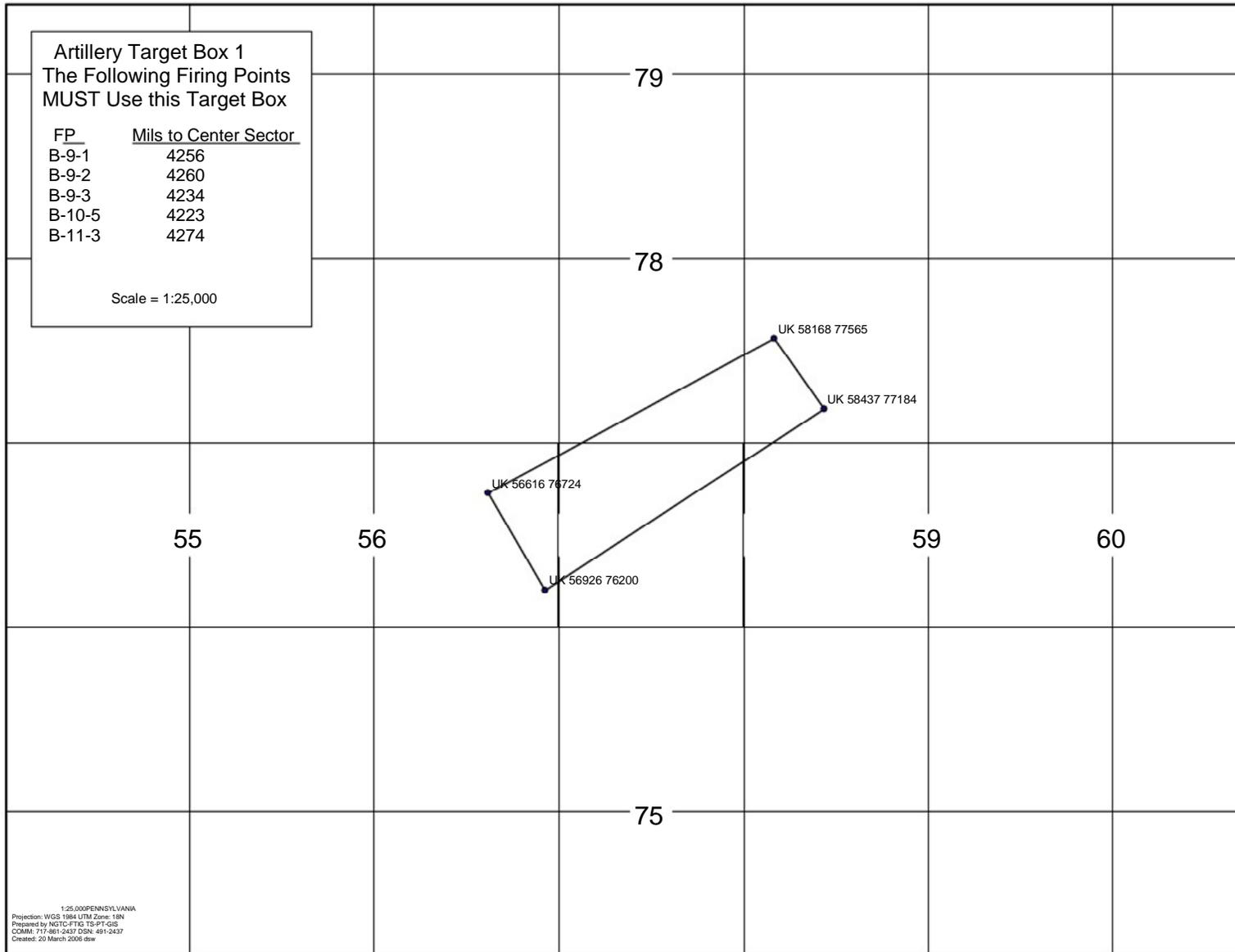
Current direct and indirect firing positions for mortar and field artillery are listed in Appendix A.

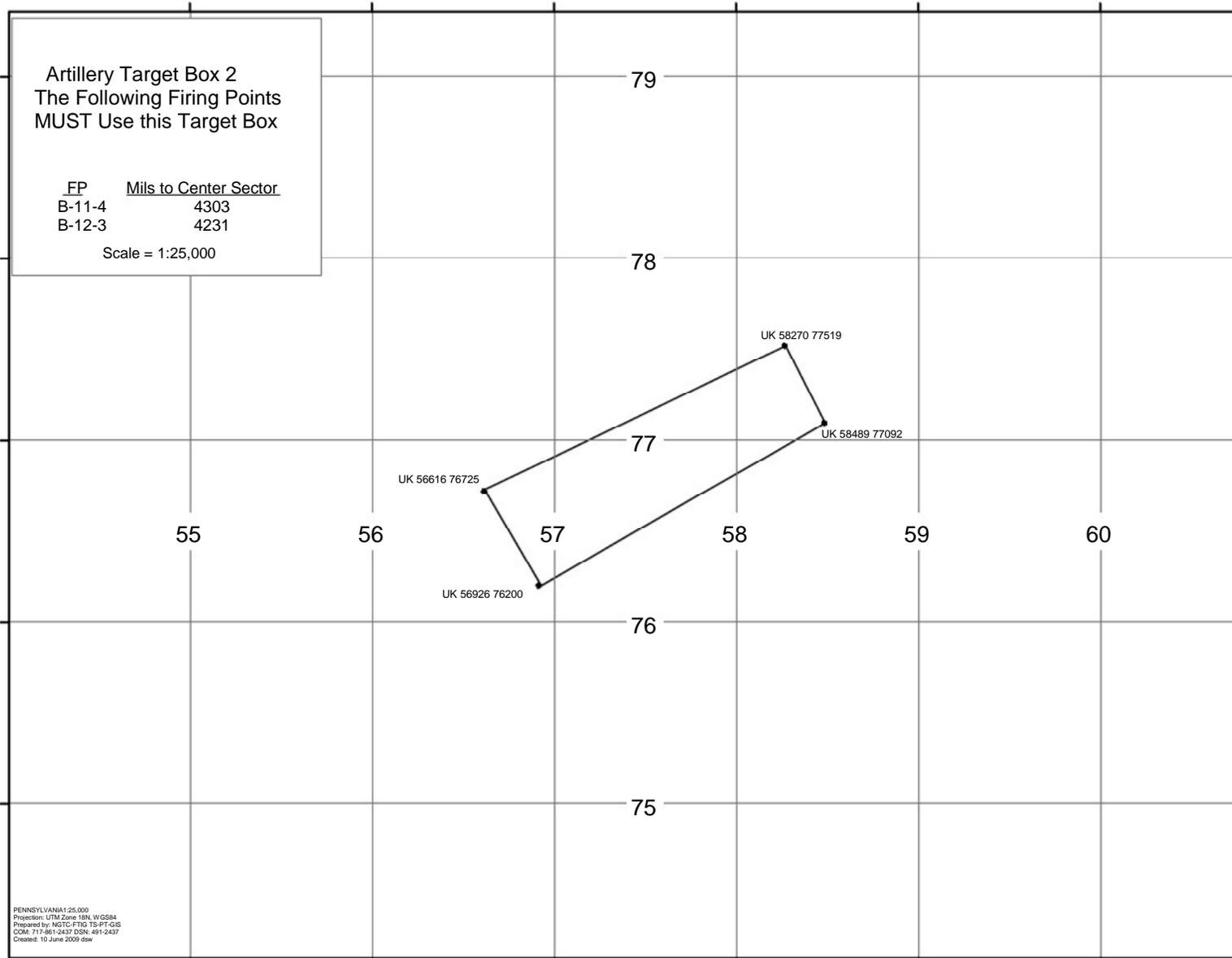
5-9 SPECIAL INFORMATION

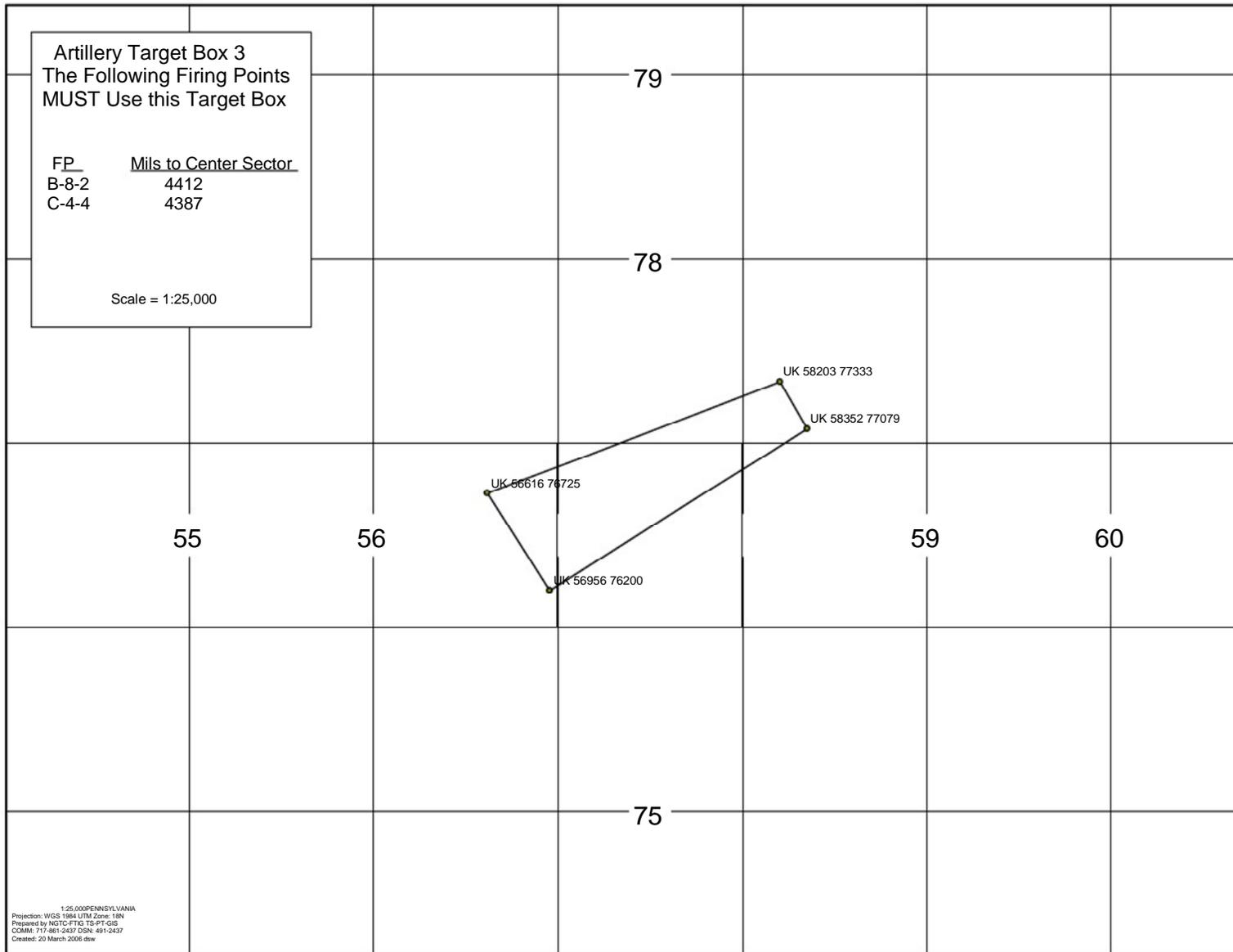
- a. Scheduling conflicts for field artillery are based on ammunition cleared for overhead fire. Conflicts corresponding to ammunition not cleared for overhead fire will be determined on a case by case basis.
- b. Indirect Fire Positions. Firing positions are continually being upgraded, moved, and added in order to provide the most tactical and realistic training possible. The goal is to locate positions not visible from main roads, that do not cause roads to be closed, and that provide a reasonable amount of cover and concealment. Check grid coordinates of both FP's and OP's before any live fire training.
- c. Impact Areas. The main impact area is continually being modified and upgraded as funds and assets are available. Units can assist in the efforts to make the impact area more usable by shifting targets from mission to mission and using the limits of the given fans. Partially obscured targets are more tactical and realistic than a hulk in the middle of a 200 acre blown out area.

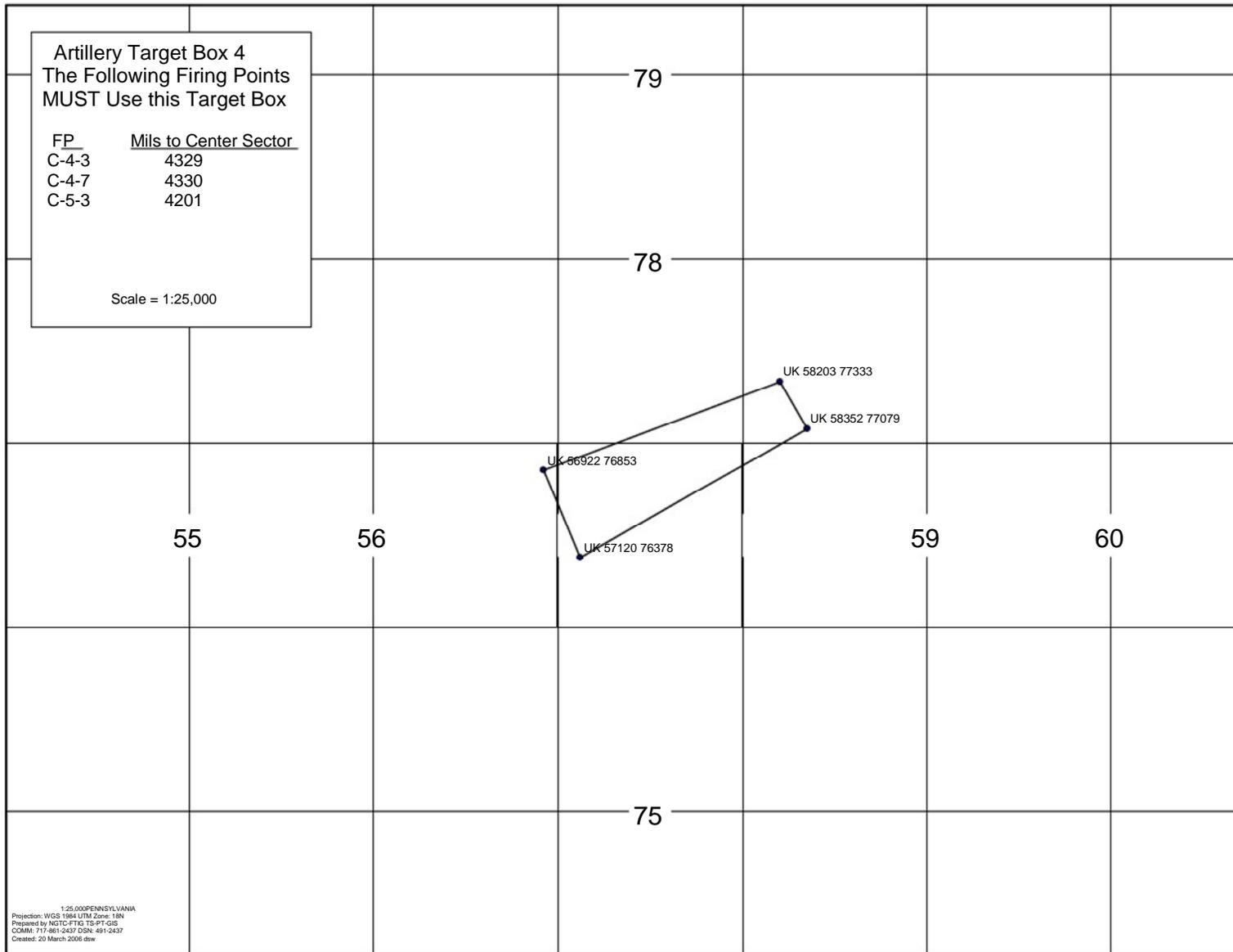
5-10 TARGET BOXES

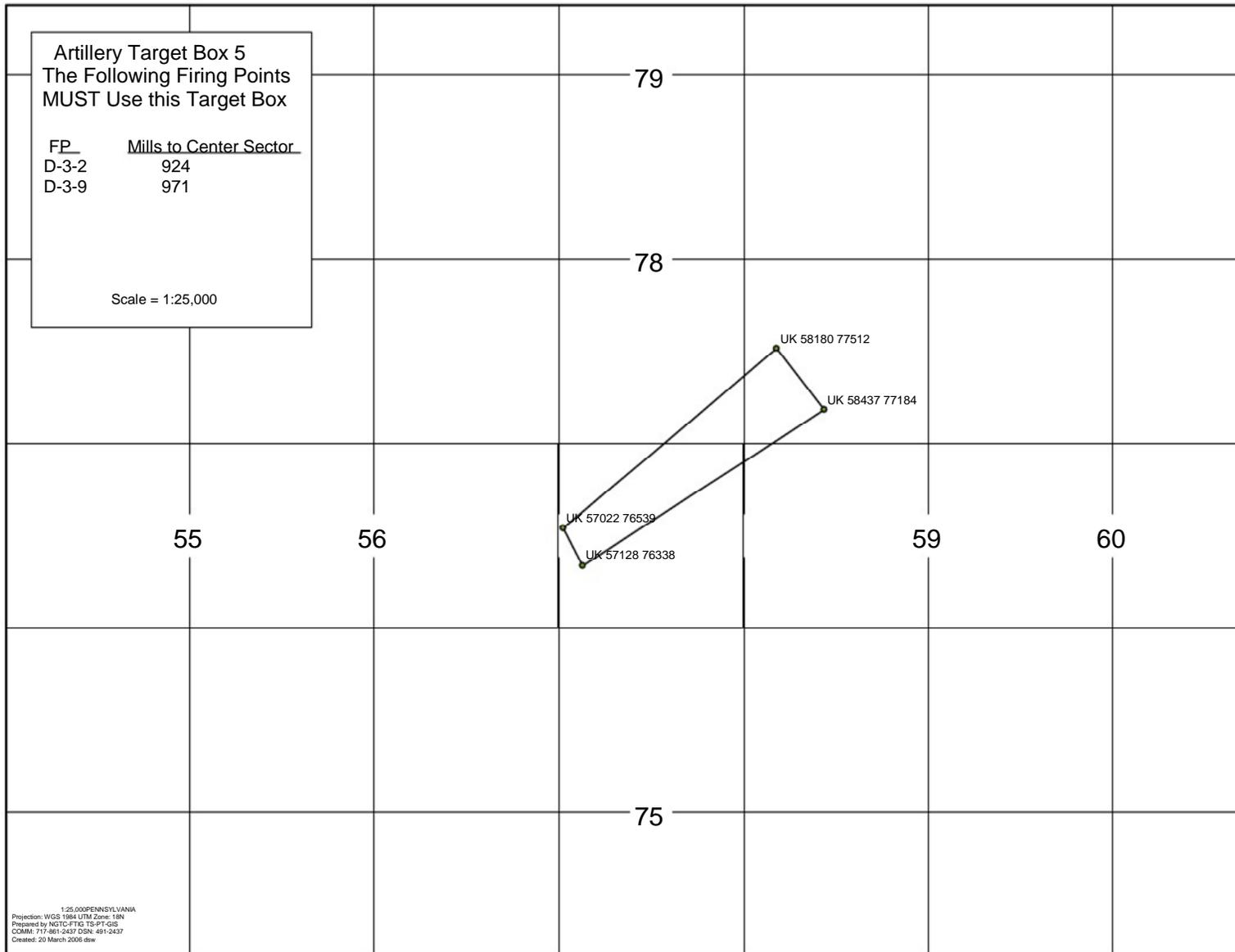
Target box information will be provided to the units approximately two (2) weeks prior to the scheduled training. Contact Range Operations if you do not receive this information.

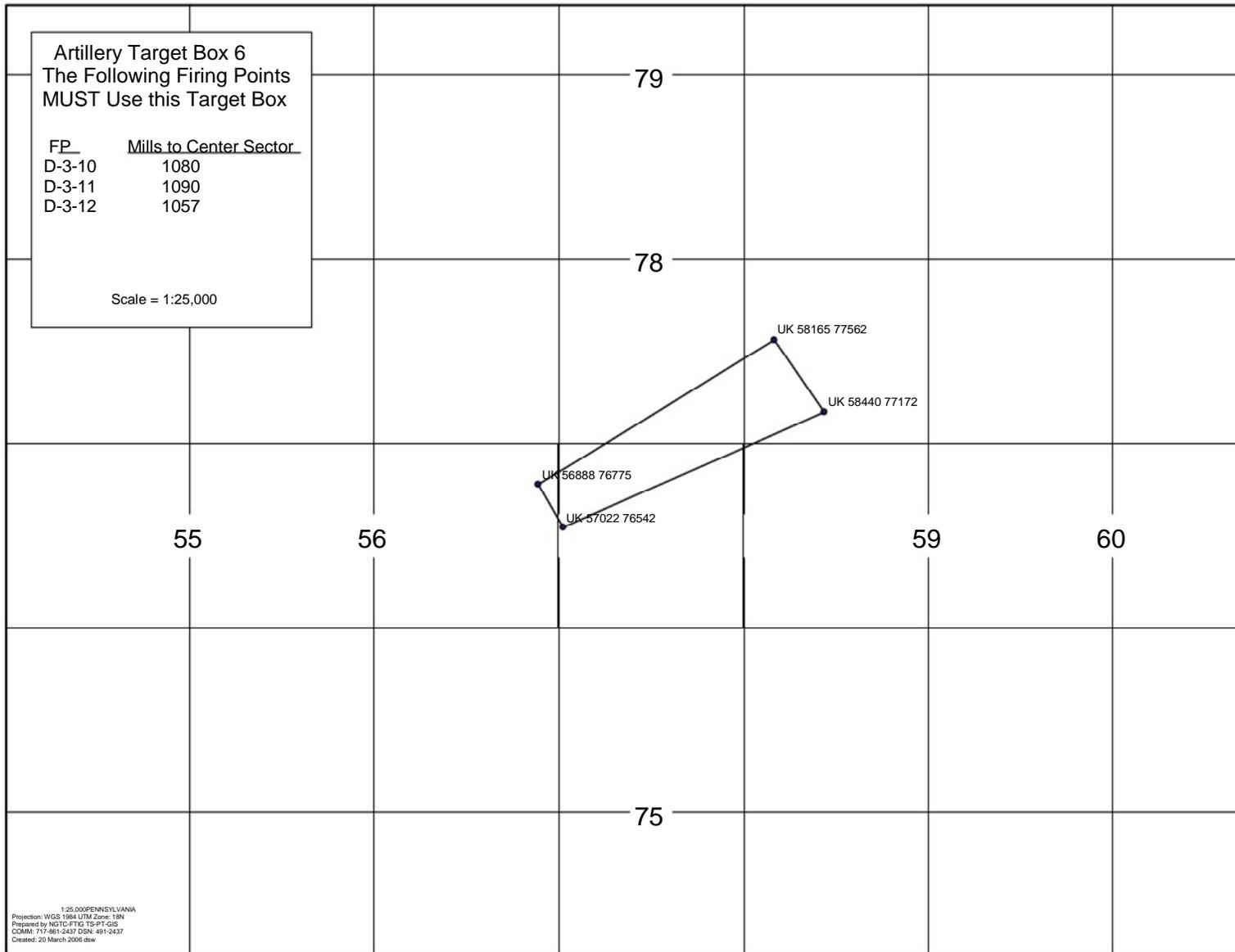


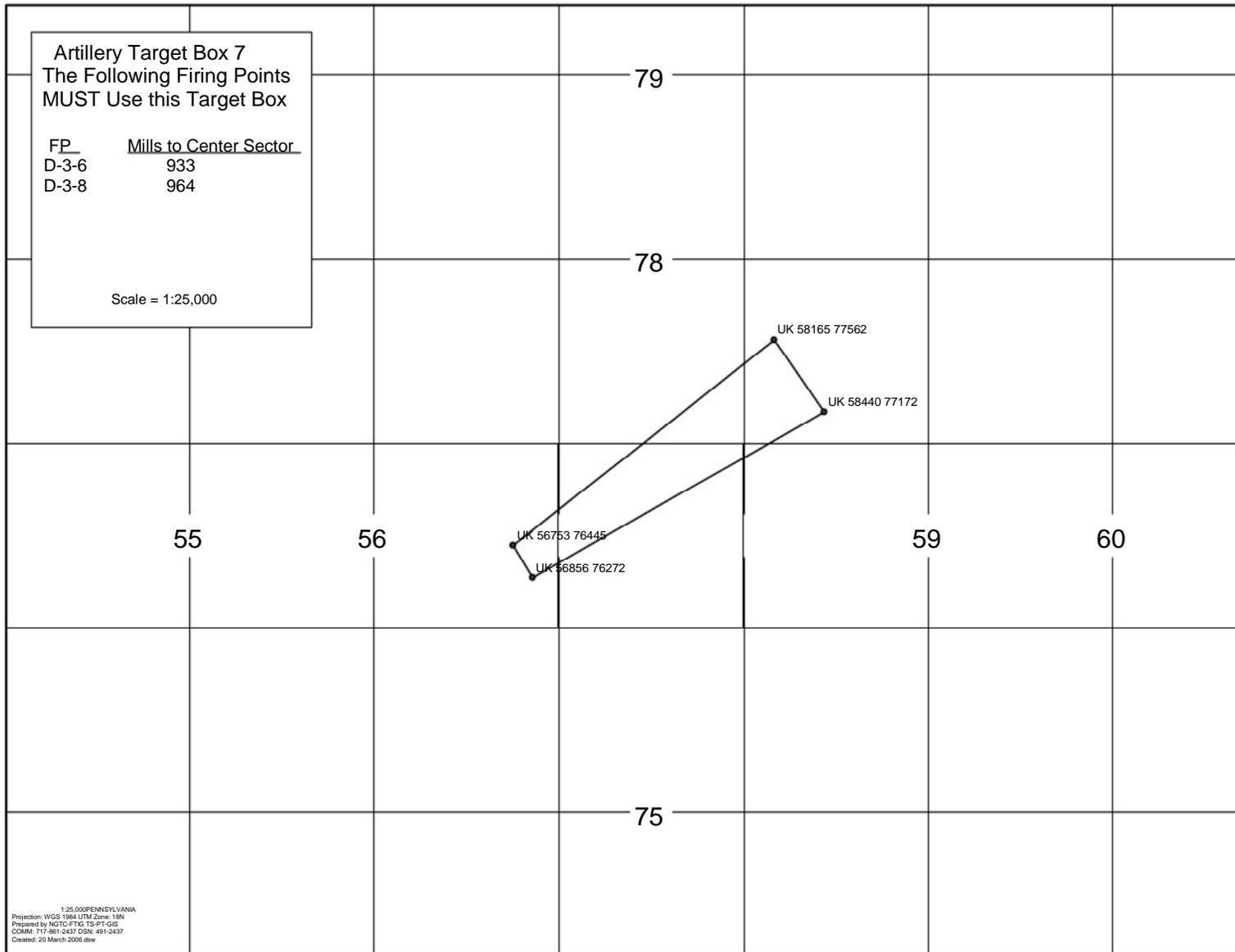












CHAPTER 6

INDIRECT FIRE (PALADIN and M777 OPERATIONS)

6-1 PALADIN & M777A2 FIRING SAFETY

- a. This section prescribes policy and procedures for the safe conduct of live M109A6 Paladin and M777A2 firing at FTIG. The Training Center Commander intends to enable firing units to execute training doctrinally, maximizing the mobility and firepower inherent to the weapon system IAW FM 3-09.70 and TM 9-2350-314-10 (M109A6) or TM 9-1025-215-10 (M777A2), taking into account the full scope of doctrinal and standard operating procedures governing firing safety within the context of this regulation.
- b. Degraded firing systems will follow all procedures for non-Paladin/M777A2 firing units as specified in Chapter 5 of this regulation..
- c. In order to accommodate the doctrinal training concept, FTIG has created several maneuver boxes. These areas contain two or more Position Area for Artillery PAAs. RNOICs and RSOs are required per paragraph 6-6.
- d. IAW FM 3-09.8, paragraph 2-81 which defines the limits of the impact area for unboxed safety (preferred method for determining safety fan) as a 300 meter reduction from the edges of the impact area, the Paladin/M777A2 impact area is defined as the following points on the FTIG Military Map: UK5661676724, UK5692676200, UK5820677512, UK5843777184 (horizontal datum WGS84).

6-2 PALADIN and M777A2 SAFETY LIMITS

- a. Platoon Operations Center (POC) personnel will determine the azimuth to left interior edge and right interior edge of the Paladin/M777A2 impact area as described in paragraph d above.
- b. The minimum QE is the computed QE to the nearest point of the Paladin/M777A2 impact area or the XO's minimum QE, whichever is larger. Minimum time is the fuze setting corresponding to the minimum QE. Maximum QE is the QE to the farthest point of the Paladin/M777A2 safety area.
- c. These safety limits will apply anywhere out to a maximum of 400 meters (or as far as terrain will permit out to 400 meters) from the surveyed center of the Paladin/M777A2 firing area.
- d. POC's will plot both Paladin/M777A2 impact area and the unboxed or boxed safety fan on the situation map. RNOIC/RSO will verify plot of every call-for-fire falls within safety fan and Paladin/M777A2 impact area before sending fire mission to the guns.

6-3 PALADIN & M777A2 INITIALIZATION

- a. Paladin Digital Fire Control System (PDFCS)/Digital Fire Control System (DFCS) must receive its initial location and altitude from a fourth-order survey control point.
- b. RSO must verify PDFCS/DFCS initial location and check mission with POC.
- c. Verification of data includes independent checks by independent means. PDFCS/DFCS and Advanced Field Artillery Tactical Data System (AFATDS) must agree with the following tolerances:

FZ TI: 0.1 sec

FZ VT: 1 sec

DF: 2 mils

QE: 2 mils

d. POC will conduct verification mission with PDFCS/DFCS whenever the following occurs:

- (1) Artillery Fire Control System (AFCS)/DFCS restart.
- (2) Significant change in database (MET, MVV, registration).

6-4 PALADIN/M777A2 MOVEMENT

a. If the weapon system moves less than 27KM and ZUPT are clean, gun moves directly to occupation; if not, conduct NAV update at a fourth order SCP prior to occupation.

b. POC's will maintain a howitzer tracking chart constructed IAW FM 3-09.70, Chapter 4.

6-5 PALADIN/M777A2 OCCUPATION

a. Paladin/M777A2 must record occupation grid.

b. Paladin/M777A2 crew must verify azimuth of fire prior to live fire. Tolerances as follows:

Tube-To-Tube: +/-10 mils

M2 compass: +/-100 mils

DAP: +/-10 mils

SCP and EOL: +/-2 mils

c. Howitzer section chief will enter min QE as LOAD ELEV in PDFCS/DFCS and max QE as max EL.

6-6 PALADIN/M777A2 FIRING AREAS (PFAs)/POSITION AREAS FOR ARTILLERY (PAAs)

a. A PFA is defined as a radius of up to 400 meters from the center of a surveyed point for which boxed or unboxed safety was computed and approved. All weapons systems within that PFA must occupy no more than 400 meters from the center of the firing area. The safety limits (unboxed or boxed) are applicable anywhere within the 400 meter radius from the surveyed center of the PFA. Paladins/M777A2s are free to move within the confines of the PFA within the parameters of unit SOPs.

b. A PAA is defined as two PFA's no more than 3 kms from each other. Generally speaking platoons (consists of three guns) are assigned PAAs.

c. Each PAA will have a RNOIC. An RSO must be present with each separate firing element.

d. POCs must occupy within the PAA and can go WET for both PFAs within the PAA. Either the RNOIC or RSO must locate at the POC during the live fire.

e. Each POC must maintain direct communications with Range Operations while in a WET status.

f. POCs will notify Range Operations on the status of first round fired from a PAA.

6-7 AMMUNITION

- a. Paladin Howitzers may carry fused rounds north of Tomstown Road.
- b. Excess propellant increments will be transported inside closed powder canisters stored on board the howitzer, ammunition carrier or prime mover (IAW unit SOP), and burned IAW procedures of FM 3-09.50.
- c. No pre-set fuses or pre-cut charges are authorized, except for priority missions or schedules of fire.

6-8 OPENING CHECKLIST

In addition to standard opening checklist for going WET, RSO for Paladin/M777A2 PFAs will report the following information to Range Operations prior to going WET:Range Operations

MIN QE
AZIMUTH OF FIRE
MAX ORD FOR HIGH ANGLE

6-9 M777A2 SAFETY AIDS

- a. Howitzer section chief will provide measure site-to-crest between left and right deflection limits using SITE DEFINITION screen on DFCS.
- b. Since DFCS does not have a sector of fire capability similar to Paladin, M777A2 will emplace the following safety aids regardless of mode of operation (normal or degraded).
 - (1) Deflection safety aid. Emplace safety tape on the traverse rack (A) just below course azimuth scale (B) and mark with an index mark (C).
 - (2) Quadrant safety aid. Emplace index and limit safety tape on the quadrant mount (A).

CHAPTER 7

GUIDED MISSILE FIRING (TOW/DRAGON/JAVELIN)

7-1 GENERAL

a. This chapter prescribes general and specific safety precautions necessary for firing TOW, DRAGON, and JAVELIN missiles by personnel in training, practice, and tests in ground and aerial applications. Guidance is in accordance with AR 385-62, AR 385-63, TC 1-140, FM 3-23.24 (DRAGON), FM 3-22.34 (TOW), and FM 3-22.37 (JAVELIN), which contain complete and detailed information pertaining to firing the weapon systems. RNOICs and RSOs will be thoroughly familiar, and in compliance with AR 385-62, AR 385-63, all applicable FM's and TM's, and this directive before attempting the firing of guided missiles on FTIG ranges.

b. Only personnel who have been trained and qualified with inert or loaded components, simulated or actual propellants, and inert or loaded complete rounds will be allowed to participate in service firings and in combat firing exercises.

c. Precautions covering specific types of material, items, or components are given in the applicable weapon systems manuals and will be strictly followed.

7-2 SAFETY

The following general safety precautions for the firing of guided missiles will be observed:

a. ALL guided missile firing is considered non-standard training and will be subject to the NON-STANDARD Training requirements.

b. Before firing TOW, DRAGON, and JAVELIN missiles, the unit in conjunction with Range Operations personnel, will ensure the entire surface danger area is cleared of all non-mission essential personnel.

c. Surface Danger Zones (SDZ) will be determined and defined in conjunction with Range Operations prior to firing guided missiles. The SDZ for missiles is composed of a firing area, target area, impact area, danger areas surrounding these locations, and a back blast area. Distance X of the SDZ will be based on the maximum ballistic range for the weapon system since there is no provision for command destruct. Dimensions and/or means for determining dimensions are given in AR 385-62, Chapter 6, and AR 385-63, Chapter 16.

d. Smoking is prohibited within 50 feet of firing pads, ready storage sites, or assembly sites. The possession of matches or flame producing devices is further prohibited in these areas.

e. Ground fired missiles will not be fired from within buildings or within 100 meters of a vertical or near vertical backstop.

f. TOW and DRAGON missiles will not be fired from any position which would allow the guidance wire to contact electrical power lines, electrified target locations, or any source of power that would be hazardous to the control of the weapon or the firing personnel.

g. Firing of TOW, DRAGON, or JAVELIN missiles over personnel or material objects in training or target practice areas is prohibited. This prohibition includes the entire SDZ.

h. In addition to the standard briefing given by the RNOIC/RSO, all personnel will be briefed that looking through the tracker at the sun, illumination flares, or other bright lights could result in serious eye damage.

- i. Ground fired missiles in training will not exceed ± 20 degrees from the horizontal plane with the exception of the Javelin when in Top Attack mode.
- j. Guided missiles will not be fired at any targets towed by manned vehicles.

7-3 TOW SPECIFIC FIRING CONDITIONS

- a. TOW missile training will be conducted IAW FM 3-22.34.
- b. Only those personnel actively engaged in firing and controlling TOW missiles as specified in appropriate FMs and TMs will be permitted in the SDZ. The unit commander, with Range Operations concurrence, may allow mission essential personnel directly associated with, but not actively engaged in the fire mission, to be located within area H in protected enclosures or behind earthen berms. All personnel in this area must wear Kevlar, flak jacket, ballistic eye protection and hearing protection.
- c. Personnel will neither stand nor permit any part of their body to be directly behind or in front of the TOW launcher while a missile is in the launch tube.
- d. All missiles will be tested using the missile test set as part of the overall system pre-fire checks. This will identify the majority of missiles with a potential for operational failures.
- e. Inert Warhead. **[ONLY INERT WARHEADS ARE AUTHORIZED FOR FIRE ON FTIG]**
 - (1) Area H is not required for the inert warheads equipped with an enhanced missile ordnance inhibiting circuit (EMOIC).
 - (2) Ground fired TOW missiles require a back blast area cleared of all equipment and personnel 75 meters to the rear of the launcher forming a 90 degree arc from the point of firing, divided by the gun target line. **Back blast areas will be marked off by the firing unit.**
 - (3) Inert warhead TOW weapons may only be fired on Range 24B TOW.
 - (4) All units firing TOW missiles must complete and return to the ASP a missile firing report IAW DA PAM 700-19. The installation QASAS can assist in completion of this report.
- f. Risk Assessment: Because this is considered non-standard training, Risk Assessments must be turned into Range Operations at least 45 days prior to scheduled firing and must be approved by Range Operations before the facility will be scheduled. (See Appendix M).

7-4 DRAGON SPECIFIC FIRING CONDITIONS

- a. DRAGON missile training will be conducted IAW FM 3-23.24.
- b. Only those personnel actively engaged in firing and control of DRAGON guided missiles as specified by appropriate field manuals or technical manuals will be permitted in the surface danger zone at the time of firing. DRAGON back blast area for all training applications extends 50 meters to the rear of the launcher, forming a 90 degree arc from the firing point.
- c. Personnel within 50 meters of the firing position will wear flak jacket, Kevlar, ballistic eye protection, and hearing protection.

- d. Personnel will never stand or permit any portion of their bodies to be directly behind or in front of the launcher when the tracker and missile are mated. **Back blast areas will be marked off by firing unit.**
- e. All missiles must be tested using the missile test set prior to missile firing.
- f. All units firing the DRAGON missile must complete and return to the ASP a missile firing report IAW DA PAM 700-19. The installation QASAS can assist in completion of this report.
- g. Risk Assessment: Because this is considered non-standard training, Risk Assessments must be turned into Range Operations at least 45 days prior to scheduled firing and must be approved by Range Operations before the facility will be scheduled. (See Appendix M).

7-5 JAVELIN SPECIFIC FIRING CONDITIONS

- a. Personnel will neither stand nor permit any part of their body to be directly behind or in front of the JAVELIN launcher.
- b. The Javelin back blast area extends 100 meters to the rear and up 25 meters to the sides of the launcher forming a 60 degree arc from the point of firing. **Back blast areas will be marked off by firing unit.**
- c. All personnel within the 100 meter danger area will wear Kevlar, flak jacket, and ballistic eye protection and hearing protection.
- d. All non-essential personnel will not stand within 100 meters of the JAVELIN.
- e. Live fire Javelins may only be fired on Range 38 (TA C-06).
- f. Risk Assessment: Because this is considered non-standard training, Risk Assessments must be turned into Range Operations at least 45 days prior to scheduled firing and must be approved by Range Operations before the facility will be scheduled. (See Appendix M).

7-6 MISFIRES, HANG FIRES, AND MALFUNCTIONS

- a. Misfires, hang fires, and malfunctions will be handled by the using unit in accordance with established procedures outlined in weapons/ammunition FM's, TM's, unit SOP, and Chapter 3 of this regulation. In all situations, Range Operations will be immediately notified.
- b. Procedures to be followed in case of failure to fire, until the cause of failure is determined or the system is rendered safe:
 - (1) Keep the launcher directed to a safe field of fire and all personnel clear of the trajectory and path of motor exhaust.
 - (2) Wait the prescribed minimum safety interval as directed by the appropriate TM/FM, whichever is longer, before approaching the missile.
- c. If any of the firing, tracking, guidance, or safety systems equipment, or components malfunction during preparation for firing or during the firing sequence, operations will be **suspended and the missile not fired** until the equipment is repaired and functioning properly in accordance with the appropriate FM's/TM's.
- d. If any lot of guided missiles or components has malfunctioned in such a way that further use of that lot will probably result in injury to personnel or damage to property, the particular lot involved will be suspended from use.

This suspension will be made by the unit commander, RNOIC, or senior safety officer and immediately reported to Range Operations and the QASAS or ASP Supervisor. The material involved in the malfunction and any evidence such as components or fragments of the missile involved will be carefully preserved until disposition is directed by Range Operations.

7-7 ANTITANK WEAPONS EFFECT SIGNATURE SIMULATOR (ATWESS)

All units should employ ATWEES cartridges IAW TM 9-1370-207-10.

CHAPTER 8 EXPLOSIVES AND DEMOLITIONS

8-1 GENERAL

a. Basic safety procedures prescribed in AR 385-63, DA PAM 385-63, FM 3-34.214 Chapter 7 TM 9-1300-206, TM 9-1375-213-12, AR 385-64 and this regulation will be adhered to at all times. Specific publications which reference safe handling, operational procedures, and precautions specific to the ordnance being used must also be on the range/training facility and available for use by the RNOIC/RSO.

b. Personnel acting as RNOIC/RSO will complete Explosives Firing Log (FTIG Form 350-5-250, found in Appendix L) and turn it in to Range Operations 48 hours prior to employing any demolitions. RNOIC will maintain a Demolitions Reconnaissance Log on site. (If conducting Urban Breaching on a DEMO Site the Demolitions Reconnaissance Log will be turned in to Range Operations 48 hours prior.) This record will be reviewed during Range Operations Safety Inspections. All items required for normal range operations outlined in the RNOIC/RSO briefing apply.

c. Requests for targetry such as silhouettes, target vehicles, metal, etc., will be filled within the capabilities of Range Operations. Target procurement and movement to the demolition site may require unit assistance and funding. Requests for this support should be included on the RFMSS Web interface; followed up telephonically to Range Operations at least two weeks prior to use.

d. Roads and trails will not be cratered, blown, or blocked without permission from Range Operations.

e. The maximum charge used on Fort Indiantown Gap will be 100 lbs unless approved by the Garrison Commander. Units requesting to use more than 100 lbs must submit a Non-Standard Training Request (Appendix M) along with a Risk Assessment. The Range Officer will forward the request to the Garrison Commander for final approval.

f. The last charge of the training day must be set to detonate early enough that if a misfire occurs, the required wait period and misfire procedures can be accomplished and the charge detonated, prior to 2300. If circumstances prevent clearing of a misfired charge prior to 2300, the unit is responsible for maintaining security of the site until 0800 the next day. At that time they will take the necessary steps to properly clear the misfired charge.

g. All charges will be dual primed and dual initiated.

h. Units will adhere to all directives as specified in specific DEMO Site SOPs.

i. Range 33 is the primary location for urban mobility breaching. (See Chapter 4, Section 11)

8-2 DEMOLITION SITE SCHEDULING

Range Operations may change scheduled Demolition Sites that conflict with other live-fire training in order to allow other soldiers to train. When scheduling demolitions or explosives training the follow information must be provided on the electronic RFMSS Web request.

a. Type charges (shape, cratering, Bangalore, etc).

b. Maximum charge to be fired in lbs TNT.

c. Special training requirements or targets needed such as trees for cutting, vehicles, etc. (if open area is all that is required show "None").

8-3 SAFETY

a. Safety procedures used in demolition training will be IAW those outlined in FM 3-34.214 all applicable FM's/TM's.

b. General Safety Guidelines:

(1) Responsibility for preparing, placing, or firing of charges will not be divided. One individual will be responsible for the supervision of all phases of the demolition mission.

(2) Do not use blasting caps underground.

(3) Units will ensure all personnel are accounted for prior to detonating a charge.

(4) Give "**FIRE IN THE HOLE**" warning three times and in three directions prior to initiating demolitions.

(5) The use of any explosive for other than its intended purpose is not allowed. Training involving field expedient demolitions is considered Non Standard Training and must be submitted through the Range Officer for approval by the Garrison Commander.

(6) All demolition training operations will be discontinued during, or on the approach of, an electrical storm.

(7) Commercial fireworks will not be handled, stored, or used in any way by training personnel on Fort Indiantown Gap.

(8) All charges will be dual primed with detonating cord.

(9) When firing cratering charges, shaped charges, Bangalore torpedoes, and mine-clearing charges, all personnel will wear protective helmets, hearing protection, ballistic eye protection, and (flack vest/body armor) in addition to observing safe distances listed in paragraph (13) below.

(10) When firing shaped charges, personnel will evacuate at least 1000 meters from the point of detonation, 300 meters if a defilade position is available, or 100 meters if a missile- proof shelter is available.

(11) When firing Bangalore torpedoes, personnel will evacuate at least 1000 meters from the point of detonation, 200 meters if a defilade position is available, or 100 meters if a missile- proof shelter is available.

(12) For missile proof shelters, units may use existing structures, or units may construct field expedient bunkers, bring ballistic box shelters, or use military vehicles such as the family of armored personnel carriers (APCs). Range Operations must be advised in advance and approve the shelter or vehicle prior to actual use.

(13) Safe distances for bare charges and charges on targets are shown in FM 3-34.214 tables 6-1 and 6-2. A general guide for surface charge evacuation distance is:

(a) Less than 27 lbs- 300 meters.

(b) 28 - 125 lbs- 500 meters.

(14) It is a unit responsibility to ensure that all explosive charges, simulators, and pyrotechnics used during their training are properly detonated. All emplacements including misfires and unexploded ordnance will be blown in place prior to the unit clearing the area. **If by chance the last charge of the training exercise was not set right and**

explosive material remains after detonation all remaining explosive material should be collected and turned into the ASP.

(15) After moving personnel to a designated safe distance, ensuring road guards are in place, barrier plan is in place, and accounting for ALL personnel, unit will ensure they have communications with road guards and Range Operations prior to detonations

c. Non-electric:

- (1) Never store blasting caps with explosives or carry them loose.
- (2) Use only M2 crimpers for all crimping operations. NSN: 5120-01-313-6937 (others may be defective)

d. Electric:

- (1) Do not remove short-circuiting shunt or un-shunt the lead wires unless testing or connecting the cap.
- (2) Electrically initiated operations will not be performed in training within 200 meters of energized power transmission lines.

(3) Demolition training areas will be controlled to prevent entry of portable transmitting equipment within 5 meters minimum and in all instances in order to comply with distances shown in Table 18-2 of AR 385-63.

8-4 MISFIRE PROCEDURES

- a. Misfire procedures will be in accordance with FM 3-34.214 and appropriate weapons TM.
- b. Immediately notify Range Operations of the misfire.
- c. Never leave the misfire area unsecured or attempt to move or disarm a misfire.
- d. Never abandon misfired explosives - they are the unit's responsibility.
- e. Notify Range Operations when the misfire has been cleared.
- f. Non-electric Misfires:

(1) After attempting to fire the charge, wait at least 30 minutes plus the time remaining on the secondary system before investigating the problem.

(2) The soldier placing the charge should be the one who checks it and corrects any problems.

(3) To clear above-ground misfires, use a primed 1 lb charge placed next to the misfire. Do this for each misfired charge or charge separated from the firing circuit that contains a blasting cap. Do not move scattered charges containing blasting caps - blow them in place. Do the same for charges primed with detonating cord.

(4) For underground charges, carefully dig to within one foot of the charge and place a primed 2 lb charge on top or to the side and detonate the new charge.

g. Electric Misfires:

- (1) Immediately make two more attempts to fire. If these are unsuccessful, use a secondary system.
- (2) Check to ensure wire connections are tight. If loose, tighten connections and again attempt to fire the charge.

(3) Disconnect the blasting machine or power source and test the blasting circuit. If the circuit tests good, change blasting machines or power source and attempt to fire the charge.

(4) If a charge does not fire and only one initiation system is employed, disconnect the blasting machine, shunt the wires, and immediately investigate. When employing more than one electrical system or a combination electrical/non-electrical system, wait 30 minutes before inspecting.

(5) If you suspect the electrical cap is the problem, do not attempt to remove or handle it. Place a primed 1 lb charge next to the misfired charge and detonate the new charge.

h. Detonating Cord:

(1) If detonating cord fails to function, attach a new cap to the remaining cord and detonate the new cap. Treat branch lines in the same manner.

(2) If the detonating cord leading to the charge detonates but fails to explode the charge, do not investigate until all signs of burning have stopped. Wait 30 minutes if the charge is underground. Re-prime and attempt to detonate the charge.

(3) Scattered pieces of detonating cord that do not contain blasting caps may be collected and detonated together.

i. M58 MICLIC:

(1) Only inert line charges can be fired at FTIG

(2) The MICLIC must be inspected for proper orientation rocket motor receptacle detent. Proper orientation of detent is in the UP (12 o'clock) position. Any MICLIC found with detent in the DOWN position must be returned to the ASP as soon as possible. As a minimum, the following safety procedures will be followed for misfires:

(a) After repeated firing attempts, disconnect the blasting machine, notify Range Operations, and ensure the selector switch is set to OFF. **Keep all personnel protected and wait 30 minutes before proceeding with misfire procedures.**

(b) After 30 minutes, remove rocket cable from receptacle number 3 and immediately secure protective cap on rocket cable.

(c) Install shunt into receptacle number 3 and continue with misfire procedures according to Safety of Use Message 105-1A "CHANGE OF MISFIRE PROCEDURES FOR LAUNCHER MINE CLEARANCE MK 155 AND ROCKET MOTOR 5-INCH MK 22."

(d) If the rocket still fails to fire and a replacement rocket is not available, the line charge will be turned back to the ASP.

8-5 MAXIMUM CHARGE (MAX CHG)

a. Maximum charge is defined as the total of any single or combined detonation set off simultaneously or with less than a 30 second interval between charges. Maximum Charge detonations must be separated by at least a 30 second interval with no more than three allowed before a fifteen minute wait is required.

b. MAX CHG allowed in training at Fort Indiantown Gap is 100 lbs at Demo Site Delta, 45lbs at Demo Site Bravo. (This includes the explosive weight of DET Cord which is .0064 lbs/ft) Approval to increase MAX CHG must be requested through the Range Officer to the Garrison Commander for approval. Requests are contingent upon unit training requirements and the availability of an area capable of handling the size of the charge requested.

- c. MAX CHG for each Demo Site will be strictly adhered to unless prior approval for a change has been granted.

8-6 DEMOLITION RECONNAISSANCE RECORD

A Demolition Reconnaissance Record (DA Form 2203-R) and a FTIG Explosives Firing Log (FTIG Form 350-5-250) must be completed for every demolition operation on Fort Indiantown Gap. FTIG Explosives Firing Log must be turned in to Range Operations prior to allowing the unit to go "WET".

8-7 TRAINING NEW PERSONNEL

- a. Requirements for training new personnel are as follows:
 - (1) Fire all charges electrically with the exception of specific non-electric training instruction.
 - (2) Fire charges untamped above the ground surface.
 - (3) Ensure no more than five trainees actually insert cap or primer in charges, supervised by one instructor.

8-8 TRANSPORTATION AND TEMPORARY RANGE STORAGE

- a. Vehicles transporting explosives and units using field storage sites will comply with guidelines outlined in Chapter 3.
- b. Temporary range storage of explosives in the open will contain no more than 500 lbs per pile/stack and the distance between each pile/stack will be a minimum of 45 meters. Demolition material, dynamite, black powder, and detonators will each be placed in a separate pile/stack. Temporary range storage will include those steps necessary to ensure explosives are kept dry and protected. Dunnage and cover, as circumstances require, are unit responsibilities. Storage will be guarded at all times. Further guidance is prescribed in Chapter 3 of this regulation, AR 385-64, FM 3-34.214, and TM 9-300-06.
- c. Units will never mix live and dummy/training explosives together. This includes transportation, storage, demonstration, or training.

8-9 DEMOLITION SITE CLEARANCE

In addition to the normal clearance requirements, listed in the Demo Site SOP, all debris from demolitions and associated activities will be removed. The area will be screened and cleared for explosive residue prior to receiving a clearance from the range.

8-10 STEEL CUTTING AND CONCRETE

- a. Steel cutting will only be done using Demo Site Delta.
 - (1) Charges placed on steel will not exceed 2 pounds NEW.
 - (2) If charge is placed in a pit, personnel will evacuate the pit to a distance of 100 meters.

(3) If charge is surface laid, it must be at least 100 meters from the bunker and personnel will evacuate into the bunker.

b. Charges placed on steel or concrete objects in the open will use evacuation distances listed in FM 3-34.214 Chapter 6, Table 6-2 and also FM 5-34.

c. Charges placed on concrete will not exceed 40 pounds and should be placed on the side nearest to personnel.

d. All personnel will wear protective helmets, body armor, hearing protection and ballistic eye protection.

e. Steel/Metal cutting charges require a 1,000 meter safety buffer: see Table 6-2, FM 3-34.214.

8-11 MINES

The use of live claymore mines on Fort Indiantown Gap is considered Non-Standard Training and requires a risk assessment, overlay, and concept of the operations memorandum. These documents will be reviewed by the Range Officer and approved by the Garrison Commander.

8-12 EXPLOSIVES ORDNANCE DEMOLITION (EOD)

a. Explosives Ordnance Demolition personnel training at the installation will comply with the same rules as any other training unit.

b. Explosives Ordnance Demolition teams in mission support of Fort Indiantown Gap will conduct operations in accordance with appropriate EOD regulations, directives, and unit SOP's. On arrival at the installation, EOD personnel will report to Range Operations for an update on the situation and will be briefed on the following post requirements:

(1) The EOD team will be escorted to the site by Range Operations personnel who will provide access, area security, and provide the radio communications link to Range Operations.

(2) All other procedures will be in accordance with SOP for EOD operations and/or coordinated, as required, with Range Operations.

CHAPTER 9 LASERS

9-1 GENERAL

This chapter prescribes specific safety procedures to be followed in the use of Light Amplification by Stimulated Emission of Radiation (LASER) devices on FTIG. Procedures, guidance, and safety directed in this chapter is in accordance with and/or in addition to that prescribed in AR 385-63, TB MED 524, AR 40-46, MIL-HDBK-828A or appropriate LASER equipment manuals. The RNOIC and RSO must be thoroughly familiar with and comply with all of these directives before operating or supervising the operation of LASER devices on FTIG. LASERs will only be fired on approved, designated LASER ranges (OP11, OP13 and RG 24B).

9-2 SCHEDULING

Unit and organization requests for areas to perform LASER operations will be determined according to training requirements and range safety capabilities. Direct telephonic coordination with Range Operations is recommended prior to a web base RFMSS request since all LASER range facilities on the installation are part of other permanent range facilities.

9-3 RESPONSIBILITIES

a. FTIG Range Operations:

- (1) Will ensure that there are no specular surfaces visible from LASER sites. Any found will be removed. Glossy foliage, raindrops, and other natural objects are not considered specular surfaces that create ocular hazard.
- (2) Will ensure all new target material has specular surfaces removed or covered prior to being emplaced in the Impact Area.
- (3) Will ensure appropriate signs are in place and that access to the range is restricted by road blocks or gates in accordance with MIL-HDBK-828A, 6.1.10 (i), prior to the LASER facility going "WET."

b. Unit Commander.

- (1) The lasing unit commander will select, train, and certify personnel required to assist him/her in meeting safety requirements on ranges where LASERs are used; this includes an E6 or above RNOIC and an E5 or above RSO.
- (2) Develop a unit SOP for LASER operations covering, at a minimum, the following criteria:
 - (a) A general orientation for all personnel as to what LASERs are and what they do in order to provide confidence and competence in those personnel involved in LASER operations.
 - (b) It must prescribe instruction on hazards for specific devices and personal protective measures.
 - (c) It must require immediate medical treatment for personnel who receive eye or other overexposure.
 - (d) It must outline reporting procedures for overexposure.
 - (e) It must require records concerning overexposure in excess of levels set forth in AR 40-46 and TB MED 524 be maintained.

c. The RNOIC and RSO will:

- (1) Be familiar with this regulation, all documents listed in paragraph 9-1, and FMs and TMs applicable to the particular LASER device being used.
- (2) Ensure compliance with the unit SOP for LASER operations and training.
- (3) Do an onsite survey to establish the left and right target limits while ensuring all targets are at least 10 mils below the horizon. Once approved, one copy will be kept at Range Operations and one by the RNOIC/RSO at the lasing site.
- (4) Establish and maintain 800MHz radio communications with Range Operations.
- (5) Ensure a medical evacuation vehicle and driver is on site, LASER signs are posted, and red flag is flying (daytime) or red light is on during limited visibility.
- (6) Brief unit personnel who work with LASERs including an explanation of LASER -related hazards and safety devices.
- (7) Know the azimuth and elevation limits associated with the range facility and targets being used.
- (8) Visually inspect the range area for reflective surfaces immediately notifying Range Operations if any are found. The RSO must verify to Range Operations the area has been inspected and found free of specular surfaces prior to receiving permission to go "WET."
- (9) Immediately stop LASER if positive control of the LASER beam is lost.
- (10) Ensure individuals within the LSDZ and on the firing line wear LASER protective eyewear with curved protective lenses during LASER firing. Eyewear must be approved for the wavelength and the LASER device being fired, in accordance with MIL-HDBK-828A Appendix A.
- (11) Ensure that the visibility level is such that all targets are clearly visible.

9-4 AIR-TO-GROUND/GROUND-TO-GROUND LASERS.

- a. Will be used in controlled areas within the installations restricted airspace (R5802B) that will accommodate the required LASER Surface Danger Zone (LSDZ).
- b. Units will ensure adequate controls are enacted to ensure a stable platform and positive control of the LASER device.
- c. Will have the boundaries of the LSDZ clearly marked, visible and/or recognizable from the LASER aircraft.
- d. Will have permissible minimum and maximum aircraft elevations and aircraft pitch altitude for safe use of the LASER as determined by the RNOIC and approved by Range Operations prior to actual use.
- e. Must ensure the RNOIC and LRSO have positive control of the LASER device on the aircraft so that if the beam exceeds established safety limits, it is immediately terminated.
- f. Air to Ground operations require the RSO/LRSO to over-fly target areas in a dry status to ensure no specular surfaces exist prior to live-fire target engagement.

9-5 SAFETY

a. The underlying concept of all LASER range safety is to prevent intra-beam viewing by unprotected personnel. This is accomplished by the use of a standard maneuver direct fire Surface Danger Zone (SDZ). SDZ's will be developed IAW AR 385-63. The left and right lateral limits must allow for 15 degrees left of the left most target and 15 degrees right of the right most target as a safety buffer. The Nominal Ocular Hazard Distance (NOHD) will be distance X for the LASER being used or a safety backdrop of at least 10 mils below the horizon to "catch" the beam. The left and right lateral limits may also employ the 10 mil backdrop to reduce the size of the SDZ.

b. Every effort will be made to control LASER device usage and access of personnel to the LASER range facility.

c. If more than one type of device is used protective measures must cover all devices. For devices of the same wavelengths, the highest required optical density will be used.

d. Barrier Plan will be established and secured prior to all LASER operations by Range Operations.

e. The use of magnifying daylight optical devices to observe the target during LASER operation is permitted only if the RSO certifies to Range Operations that the target area has been inspected and is free of all flat mirror-like surfaces. Mirror-like targets can be observed only if appropriate LASER safety filters are placed in the optical train of the magnifying optics.

f. LASER ports will not be opened in motor pools or cantonment areas except when maintenance is being conducted on the LASER and all proper safety procedures have been followed.

g. LASER devices of any type will not be left unattended with the LASER port open.

h. LASER devices will never be used to LASE specular reflective surfaces.

i. Maintenance in a controlled environment may be performed with the ballistic cover removed in accordance with prescribed operating procedures.

j. Prefire checks that require operation of the LASER can be made in a controlled area with the LASER beam terminated by an opaque backstop. Prefire checks not requiring operation of the LASER but require use of the optics can be safely made in a controlled area with the ballistic cover removed by instituting operating procedures to insure power to the LASER is turned off.

k. Tactical exercises can be conducted in a controlled area with the LASER cover removed by instituting procedures that ensure power to the LASER is turned off.

l. The LASER exit port must be covered when the LASER or LASER-equipped vehicle is not in use, parked, traveling on range roads, or moving from one area to another and not engaged in tactical operations in a controlled environment.

m. LASER devices will not be used in a force on force tactical exercise.

n. Targets must be clearly visible. If weather causes targets to become obscured from sight, they will not be used.

CHAPTER 10

AVIATION OPERATIONS

10-1 GENERAL

a. Aircraft flying in support of activities on FTIG or transitioning through the installation's airspace will comply with FTIG Regulation 95-1. Units planning the use of aviation support assets must schedule activities through FTIG Range Operations, utilizing web based RFMSS.

b. The use of Rotary-Wing, Fixed-Wing, Unmanned, or High Performance Aircraft in support of operations on FTIG must be a scheduled event with Range Operations. Prior coordination with Range Operations to include scenarios, time schedules, routes of flight, proposed PZ's/LZ's and established DZs are required NLT 15 days prior to training event. The OIC or RNOIC of the supported unit is responsible for ensuring all requirements and coordination has been accomplished 30 days prior to the training event. Last minute requests will not be approved.

c. Communications must be maintained with Muir Tower (VHF 126.2/UHF 241.0) (Class D Airspace) or Range Operations and the Air-to-Ground Range (Balky on Primary UHF 233.45, Secondary UHF 239.15 and Primary VHF 139.85, Secondary VHF 134.1) when operating within Restricted Airspace. FLT following: 40.90

d. Prior Permission Requests (PPR's) to arrange for fuel or VIP arrivals (O-6/GS-15 and above) can be obtained by contacting Muir Army Airfield Operations at DSN 491-8963 or 717-861-8963, 24 hours in advance. PPRs are required for all transient aircraft.

10-2 SPECIAL USE AIRSPACE

a. Restricted Areas R5802A/B/C/D/E will be activated as required for scheduled ground firing activities, air to ground range use, Para-drops, air insertions, over-flights or emergencies. Special Use Airspace is controlled by the FTIG Training Center, Chief of Plans, Operations, Training and Security. Information and access to Restricted Airspace may be obtained by contacting the Air Traffic & Airspace Manager at DSN 491-2927 or 717-861-2927.

b. Pilots intending to utilize or transition through R5802A/B/C/D/E are required to consult applicable DOD FLIP sources, FTIG Regulation 95-1, and the NOTAM file.

c. Aircraft will not be granted clearance into Restricted Airspace until the following requirements have been satisfied:

(1) The intended aviation activity has been scheduled in accordance with paragraph 10-1a and is listed in the current published Range Bulletin.

(2) The Air Mission Commander (AMC) or Pilot-in-Command (PIC) has received a range briefing and provides the required information listed in paragraph 10-1b to Range Operations NLT 5 days in advance of the event. This will be done in person, not over the telephone or radio. Supervisory Operations personnel will conduct Aviation Range Briefings only.

(3) Prior to entry, the PC or AMC will call and provide Range Operations with their aircraft identification, destination and desired route of flight. Range Operations will confirm the previously coordinated route, advise of hazardous activities and hand off aircraft to the Bomb Range if active. Aircraft operating in R5802A/B/C/D/E will maintain continuous communications with Range Operations (FM 41.40 or 800MHz) and or/Air-to-Ground Range

Tower (Primary UHF 233.45).

(4) Specifically, traffic flow within R5802B will follow established administrative air routes. Use of administrative flight routes will require aircraft to make an initial radio and maintain continuous communications with Range Operations. Aircraft may utilize established ACP's to deviate from flight patterns in order to establish specific tasks or reach designated Landing Zones (LZs). An altitude ceiling of 200 feet AGL will be maintained while transiting administrative flight routes unless a change has been approved by Range Operations.

d. Aircraft operating in Restricted Airspace R5802A/B/C/D/E will squawk 4000 IAW DOD FLIP.

e. Over-flight of the Impact Area is not authorized. Aircraft sighted over the impact area or endangered by the trajectory of direct/indirect fire weapons will be reported to Range Operations immediately. Reports should indicate location, direction of flight, description and approximate altitude of aircraft.

f. Unauthorized access to Restricted Airspace by military or civilian air traffic may result in an Operational Hazard Report being filed with the Department of the Army Representative (DAR) or Federal Aviation Administration (FAA) directly. See figure 10-1, air movement routes.

10-3 PAANG AIR TO GROUND RANGE

a. The Pennsylvania Air National Guard Air-to-Ground Range is located within the Impact Area, and is used by high performance aircraft. The Commander, 193rd Special Operations Wing (SOW) is responsible for operation of the range and controlling aircraft. For further information see AFI 13-212, AFI 13-212 ANG Supplement 1, and the 193 SOWI 13-212 Supplement 1.

b. Requests for use of the Air-to-Ground Range for Close Air Support (CAS), Joint Air Attack (JAAT), Combined Arms Exercises and LASER operations will be scheduled through the 193 SOW, Det 1 scheduler to FTIG Training Center Chief of Plans, Operations, Training and Security (POTS) Airspace Manager.

c. On Tuesdays and Thursdays the PAANG has priority in the corridor. Ground units may be required to go into "DRY" status, to allow for low altitude flights. The only exception will be units with a MOB Order on file.

10-4 AIRBORNE OPERATIONS

a. As a safety consideration, airborne operations will be conducted only during those hours when the Muir Army Airfield Tower is operational (see DOD FLIP "IFR" Supplement for tower operating hours). Requests for parachute operations will be submitted through web based RFMSS IAW Chapter 2, FTIG Regulation 350-2. In addition, a NOTAM request must be submitted to the POTS & Airspace Manager NLT five (5) working days prior to the event.

b. The only authorized DZ on FTIG suitable for personnel drops is **WEST FIELD DZ (UK 63627533)**.

c. Units conducting airborne operations will do so IAW USASOC Regulation 350-2 and FM 3-21.220 and will provide a Drop Zone Safety Officer (DZSO), Malfunctions Officer and medical support, equipment, and personnel.

(1) The DZSO may be an NCO (E6 and above), Warrant Officer or Commissioned Officer. They must be a currently qualified jumpmaster and certified by their unit commander on the CSC. The DZSO must be familiar with FM 3-21.32, FM 3-21.220 and FM 57-230.

(2) The Malfunctions Officer may be an NCO (E5 and above), Warrant Officer or Commissioned Officer. They must be qualified parachutist and a school trained parachute rigger (MOS 92R) with a working camera.

d. The DZSO will occupy the DZ and contact Range Operations a minimum of one hour prior to the scheduled jump Time on Target (TOT) and confirm the mission is a “GO,” or canceled. If not previously provided, the following information will be given:

- (1) Number/type of aircraft
- (2) Number of passes
- (3) Type of drop (personnel or equipment)
- (4) Is DZ used as a landing site for jump aircraft

e. The DZSO will ensure medical personnel; ambulance, litter, and aide bag are present prior to the first jumper exiting the aircraft. At no time will jumpers be allowed to exit the aircraft if medical support is not present or if medical personnel are attending to a soldier on or near the DZ.

f. The DZSO will inform Range Operations when the jump aircraft is six minutes from the DZ. At this time, Range operations will confirm to the DZSO that all direct/indirect fire along the aircraft’s route of flight, if any, has ceased. The DZSO will inform Range Operations when each pass is complete and also when aircraft has cleared the DZ and the mission is complete. At no time will the DZSO change the flight pattern or route of the aircraft once that has been established with Range Operations. The DZSO will maintain communications with Range Operations throughout the entire parachute operation.

g. Vehicles, other than those required for control purposes, will not be permitted on the DZ. The DZSO will establish positive vehicle control on the DZ at all times. The DZSO is also responsible for spectator control and for police of the area prior to closing/clearing the DZ.

h. A high-risk condition exists when a water obstacle is within 1,000 meters of any edge of the DZ, water depth is 4 feet or more, and water is 40 feet or more wide. If a high-risk condition exists, it is necessary to use a boat detail and have approved life preservers on the jumpers. If the water is 4 or more feet deep, but not over 40 feet wide, a boat detail is no longer necessary. However, approved life preservers are still required for jumpers. The unit is responsible to provide the life preservers. Boats are available by contacting the MRW department. **High Risk conditions exist when using West Field DZ.**

10-5 AIR INSERTION/ASSAULT OPERATIONS

a. Requests for Rotary Wing Air Assault, Air Insertion or Reconnaissance Missions will be submitted IAW paragraph 10-1, a and b.

b. The area between Blue Mountain and Second Mountain are considered Military Tactical Training Areas. Helicopter landings are authorized in open areas deemed appropriate by the Pilot in Command or Air Mission Commander. Exceptions are for those areas which may be closed due to environmental study, ITAM rotation, impact on an adjacent units training activity or safety considerations. The required Aviation Range Briefing will highlight those aspects.

c. Rappelling or “fast roping” from rotary wing aircraft requires a TRADOC certified Rappel Master, an RNOIC and an RSO.

d. NO LANDINGS ARE AUTHORIZED IN THE IMPACT AREA DEPICTED AS THE “DANGER AREA” ON FTIG MILITARY INSTALLATION MAP.

e. The Pilot-in-Command or Air Mission Commander must conduct a visual reconnaissance of the desired landing area(s) prior to any multi-ship or night operation.

f. Helicopter LZs located within the confines of specific installation training areas i.e. (West Field, LZ Blue, Medina Ridge LZ, Tomahawk LZ, RANGE 34N LZ, RANGE 34S LZ and RANGE 39 LZ) will be scheduled for use IAW paragraph 1-8 of this regulation. At times, these areas may also be co-occupied by units conducting ground operations, only when it can be accomplished without a hazard to either aircraft or ground personnel. Requests for Joint Use (Appendix E) must be initiated with POTS Operations, FTIG Training Center and approved, prior to occupation or conduct of training. Scheduled use of any training area including designated Helicopter LZs will be published in the weekly Installation Range Bulletin. See instructions below:

(1) **WEST FIELD LZ (UK 6355275109)** Helicopters may use West Field when cleared by Muir AAF control tower for hover and slope operations. When Muir control tower is closed, aircraft must contact Range Operations prior to entering. When ground units are scheduled into Training Area A-1, Muir Operations will post the appropriate NOTAM stating aircraft use limitations.

(2) **LZ BLUE LZ (UK 5832474761)** Helicopters may use LZ Blue for pinnacle operations when approved by Muir AAF control tower. When tower is closed, aircraft must contact Range Operations prior to entering LZ. When ground units are scheduled into LZ Blue or Training Area D-8B, Muir Operations will post the appropriate NOTAM stating aircraft limitations.

(3) **MEDINA RIDGE LZ (UK 6408381641)** Aircraft utilizing Medina Ridge LZ will remain outside Restricted Airspace (R5802B) unless a range briefing is conducted with Range Operations and the procedures established in this regulation. The aircraft training loads located there are the property of EAATS or the 28th Aviation Brigade. Coordinate with the owning units for use of loads. Contact AASF Operations (717-861-8963/8915) for additional information.

(4) **TOMAHAWK LZ (UK 6480882022)** Aircraft utilizing Tomahawk LZ will remain outside Restricted Airspace (R5802B) unless a range briefing is conducted with Range Operations and the procedures established in this regulation. The aircraft training loads located there are the property of EAATS or the 28th Aviation Brigade. Coordinate with the owning units for use of loads. Contact AASF Operations (717-861-8963/8915) for additional information.

(5) **RANGE 34N LZ (UK 5923776845) & RG 34S LZ (UK 6032776517)** Aircraft utilizing Range 34N LZ or Range 34S LZ must coordinate 30 days prior with the POTS Airspace Manager and request use of the Range 34 in RFMSS. Since both LZ's are located in Restricted Airspace (R5802B) units must receive a range brief from Range Operations and follow all the procedures established in this regulation. LZ's may be used for air insertions/extractions. If Bollen Range is operational aircraft must maintain communications with them at all times. If Bollen Range is closed aircraft must maintain communications with Range Operations.

(6) **RANGE 39 LZ (UK 6077077971)** Aircraft utilizing Range 39 LZ must coordinate 30 days prior with the POTS Airspace Manager and request use of the LZ in RFMSS. Since the LZ is located in Restricted Airspace (R5802B) units must receive a range brief from Range Operations and follow all the procedures established in this regulation. LZ may be used for air insertions/extractions. If Bollen Range is operational aircraft must maintain communications with them at all times. If Bollen Range is closed aircraft must maintain communications with Range Operations.

10-6 FARP OPERATIONS

Forward Arming and Refueling Point (FARP) operations will be in accordance with FM 10-67-1 and unit SOPs. FARPs located separate from other unit operations must maintain radio communication with Range Operations either directly or through their parent unit. FARP operations separate from Range 23E FARP will be scheduled the same as other facilities and Range Operations will be notified as soon as it is operational(23E FARP will be the only authorized arming/rearming site). In addition, Unit Safety Officers must survey the site and a FARP Diagram must be developed, briefed and maintained in a visible location at the site. **FARP Sites will be inspected and cleared by Range Operations the same as all other range facilities.**

10-7 UNMANNED AIRCRAFT SYSTEMS/UAS OPERATIONS

a. When planning to conduct UAS operations the requesting unit must submit a FTIG UAV/UAS request form to the Airspace Manager at Range Operations NLT the 15th of the Month prior to anticipated flights. Questions can be directed to Airspace Manager at (717)-861-2481 (DSN 491). No late requests will be considered do to necessity of coordinating with NY Air Traffic Control Center.

(1) Units are required to attend range safety coordination meetings held at Range Operations Friday at 1330 for weekend training. The person attending must be knowledgeable of UAS operations and airspace de-confliction and have the authority to make decisions pertaining to the training being conducting.

(2) Using units will need to contact Range Operations on 800 MHz NLT 15 minutes prior to launch. Unit will identify themselves using the Range Operations assigned call sign, state their location and clearly state their intentions. Range Operations will brief them on all safety concerns within the restricted airspace.

(3) If weather prohibits flying, unit will contact Range Operations who will return airspace to the FAA. Units must keep Range Operations informed by calling at 0800, 1200 and 1600 hrs and reporting flight intentions or interruptions.

(4) Unit will provide a qualified OIC. (The Mission Coordinator may be the OIC providing they are E5 or above, E6 or above for Lasing.)

(5) All operators who control UAS must attend a Range Safety Class and have a current Range Safety card.

(6) Flights entering or departing the Restricted Airspace will do so through Indiantown Gap. Each flight will request to enter and depart Restricted Airspace and upon departing give estimated time of next flight. All flights originating outside Restricted Airspace will have an FAA approved Certificate of Authorization and be in compliance TUASOF policies and procedures.

(a) UAS entering Restricted Airspace will climb to operating altitude by flying west following the top of Blue Mountain just inside the R5802B Restricted Airspace. Then at Manada Gap turn north, again staying just inside of R5802B. UAS will then follow Second Mountain East and when they have reached pre approved operating altitude conduct their Mission(s).

(b) UAS exiting the Restricted airspace will do so in reverse order, following Second Mountain West, south at Manada Gap East along Blue Mountain and exit at Indiantown Gap.

(c) UAS will never fly directly over Ammo Supply Point.

(7) Airspace de-confliction procedures

- When more than one unmanned aircraft is utilizing R-5802A/B/C proper separation needs to be utilized to ensure safety of flight. For the purpose of safe de-confliction the mission coordinator will ensure vertical separation of at a minimum 1000 feet or 5 KM. If vertical separation is not used no more than two Shadow UAS will occupy R-5802A/B/C, utilizing the "59" gridline for separation. i.e. One (1) aircraft will remain east of the indicated line and the second aircraft will remain west of the "59" grid line. When 1000 vertical separation is maintained no more than five Shadow UAS aircraft will occupy R-5802A/B/C unless specifically approved by the Range Operations OIC. When conducting UAS flight operations with multiple aircraft there will be one Mission Coordinator who will be for operations and will have two-way radio communication with both Range Operations and Bollen Bomb Range.

(8) Flight Termination System (FTS). UAS executing Lost Link or other emergency landing will attempt to utilize the nearest predetermined FTS site at, Demolition Site C UK54487585, Bollen Range Bomb circle UK58527737, Down Range on Range 23E UK60107870 Firing Point B-12-3 UK62387979. At end of day, training unit will report number of sorties and turn airspace back over to Range Operations.

b. When sharing airspace with Bollen Range, using unit will contact Bollen Range (717) 861-1137 to provide information on number of sorties and times.

(1) On day of flight unit will contact Bollen Range on 800 MHz, NLT 15 minutes prior to launch to notify them of intentions.

(2) **UAS will strictly follow the instruction of Bollen Range Tower.**

(3) Bollen Range will act as the Airspace Control Authority during

c. (Shadow) Units intending to conduct laser training with a POP300D will ensure the training is identifies on the airspace request submitted in accordance with paragraph 1. This does not include the Laser pointer or range-finder which are eye-safe once above 1000 feet AGL.

(1) Unit must have a Command Safety Certificate (CSC) on file if they will be Lasing and must have an RSO in addition to an OIC

(2) UAS Missions approved for Laser operations will not Laser targets outside the impact area.

(3) Mission Coordinator/OIC is responsible to ensure boresight checks are completed prior to laser training.

(4) Aircraft Commanders are responsible to ensure the Laser remains in a safe (unarmed) state unless proper coordination is made.

d. Units are responsible to ensure they operate only on approved frequencies.

CHAPTER 11 AERIAL GUNNERY

11-1 GENERAL

- a. Units using aerial gunnery ranges on FTIG will comply with this regulation, AR 95-1, AR 385-62, AR 385-63, AR 385-64, FTIG Regulation 95-1, and all applicable supplements.
- b. The range is located in the eastern portion of FTIG Impact Area. (Map, Pennsylvania 1:25,000, Indiantown Gap Military Installation Map Sheet Indiantown Gap, Grid Zone Designation 18T, 100,000 meter Square Identification UK).
- c. The M60D, AH64 and AH-1 Helicopter Aerial Gunnery Ranges are located within the confines of the FTIG Air-to-Ground Range. The Range and its associated airspace is a joint-use facility controlled by the Commander, FTIG Training Center. All requests for use will be submitted via web based RFMSS. After request is received units must coordinate with the FTIG Airspace Manager.
- d. Detachment 1, 193rd Special Operations Wing, PAANG is the operating agency for activities associated with use of the Air-to-Ground Range. Once a scheduling confirmation is received, FTIG Airspace Manager will coordinate range use between the unit and Detachment 1, 193^d SOW. Direct contact with the PAANG Air-to-Ground Range to schedule its use is not authorized.
- e. Personnel performing the duties of RNOIC/RSO must attend the scheduled daily or weekend Range Operations Coordination Briefing held in Building 11-09. (Refer to Paragraph 1-9. RNOIC/RSO must also be familiar with the contents of the Range SOP and ensure strict adherence to all procedures and policies. All items required for hazardous training outlined in this regulation are applicable. Operation/conduct of the aerial gunnery range is the unit's responsibility.
- f. Aerial/Door gunnery is normally performed at standard hover positions, at standard targets, and using standard flight paths. Once Aerial Gunnery Range is "WET", these standard operations may be conducted without further clearance. All activity on the Range not listed in the SOP as standard will be coordinated with and approved by Range Operations according to procedures outlined in Appendix M. An overlay covering these non-standard operations must be constructed, approved, and in the hands of the RNOIC/RSO prior to the initiation of live-fire.
- g. Air launched HELLFIRE and/or TOW Missiles are prohibited.

11-2 STAGING AREA OPERATIONS.

- a. Range 23E-FARP, grid coordinate UK6058178573 will be used as a Staging Area/FARP for all live fire aerial gunnery operations. Prior to occupation, the **UNIT** ensures the following actions are accomplished:
 - (1) The range is scheduled and published in the weekly Range Bulletin.
 - (2) Coordination between the unit and PAANG Air-to-Ground Range are established through Range Operations.
 - (3) A qualified RNOIC and RSO have been appointed and certified by the Battalion Commander.
 - (4) Radio communications is established with Range Operations.
 - (5) Medical personnel, equipment and evacuation vehicle are briefed and on-site.

(6) The Staging Area is clear of all potential Foreign Object Debris (FOD) and the landing area is clear of obstructions.

b. All aircraft WILL BE ARMED AT THE STAGING AREA ONLY under the direction of RNOIC. Armed aircraft will generally not operate off the reservation except in the event of an emergency that dictates the most expeditious route to a safe landing area.

c. Landing direction, flights into and out of the staging area will be controlled by the RNOIC.

d. Aircraft will follow flight procedures established and listed in the Range SOP. Air traffic entering restricted airspace (R5802A/B) through FTIG are required to contact Range Operations FM 41.40 or ALT 38.10 prior to entry. Range Operations will clear aircraft for entry into Aerial Gunnery Range Complex and will conduct a hand off to PAANG Air-to-Ground Range (BALKY Control) Primary UHF Frequency 233.45.

11-3 DEFINITIONS

a. Switches/Hot. Armament sub-systems are considered hot with switches on and circuit breakers in.

b. Switches/Cold. Armament sub-systems are considered cold with the master arm switch on safe or in the off position.

11-4 RANGE OFFICER IN CHARGE (RNOIC)

a. The Range Officer in Charge. This is the individual in charge of overall unit training on the aerial gunnery complex. RNOIC is responsible for the development of the maneuver and firing phases of the range operation to insure rigid compliance with applicable field manuals, range regulations, and safety guidelines. The RNOIC is responsible for all unit personnel on the range complex.

b. The RNOIC will determine the number of safety personnel required using the following guidance:

(1) All aircraft will be under the direct, positive control of RNOIC or a RSO at all times.

(2) The number of RSOs required will be contingent on the number of firing positions used concurrently and upon the RNOIC's decision of how many safety personnel are needed to maintain positive control. Administrative activities such as aircraft entering or exiting, "Hot/Cold rearming and refueling", concurrent training, or increased overall range activity may also dictate the need for additional safety personnel.

c. The RNOIC must request and receive permission for the Aerial Gunnery Range (Range 23E-FARP) to go "WET". He will confirm to Range Operations the aerial firing points (AFP), range sectors, and operational control numbers to be used for that days firing. Once a "WET" time is received, the RNOIC will control all operations on the Aerial Gunnery Range (Range 23E-FARP). Range Operations will consider the entire range complex "WET" until closed by the RNOIC at the end of the scheduled firing day. A schedule with daily hours of actual gunnery will be provided to Range Operations prior to the start of the daily/weekly coordination meeting.

d. Ensure all personnel are familiar with this document and briefed on safety and operational procedures concerning malfunctions, runaway weapons, and other in-flight emergencies discussed in paragraph 11-11.

e. Obtain both present and forecasted weather report for the period of firing.

- f. Ensure each aircrew involved in aviation gunnery is familiar with the location of the AFPs, the right and left magnetic limits, and the maximum range limitations. A copy of this data will be with each aircraft when using any portion of the aviation range complex. Complete information on the Aerial Gunnery Range (Range 23E-FARP) is included in the range packet given to the RNOIC when signing for the facility.
- g. Designate a damaged/misfire ammunition area, located a safe distance away from all normal range activity.
- h. Designate an emergency pad to be used for weapons and aircraft malfunctions, ensure it remains clear, and that all personnel are informed of its location and purpose.
- i. Upon completion of firing for any flight inspect the range for fires. If any fires are observed they must be reported to Range Operations with approximate grid location.
- j. Ensure each aircraft has a qualified pilot for the specific aircraft and weapon system involved. Pilots and gunners are qualified when they have:
 - (1) Successfully completed an approved qualification course or qualification or transition training in accordance with the applicable Aircrew Training Manual for the aircraft and weapon system being fired.
 - (2) Demonstrated flight and weapon proficiency to a designated Instructor Pilot (IP) in the applicable aircraft and weapon system.
- k. The RNOIC will ensure that, depending on the situation, the following is supervised by himself or the RSO:
 - (1) Ordnance preparation, loading and unloading of ordnance, bore sighting, and stray voltage checks on the weapons systems are done in accordance with applicable aircraft weapon system operating instructions.
 - (2) Firing is conducted only when the aircraft is in the proper location, oriented downrange, on course, and the weapon system is aimed within the safety limits of the target area.

11-5 COMMUNICATIONS

The RNOIC must ensure that communications are established and maintained with Range Operations on 800 MHz system or ALT FM 41.40 at all times. Additionally, internal communications with all safety personnel and aircraft must be maintained during all live-fire operations. Live-fire on the range complex will cease immediately if communication is lost and will not resume until re-established.

11-6 MINIMUM FLYING CONDITIONS

- a. Operations will not be conducted unless weather at MUIR Army Aviation Support Facility (AASF) and the Range Complex is equal to or greater than the below listed minimums. Operations will cease immediately and aircraft will return to MUIR AASF when conditions drop below established minimums.
 - (1) DAY: 1,000 FT CEILING/3 NAUTICAL MILE VISIBILITY
 - (2) NIGHT: 3,000 FT CEILING/5 NAUTICAL MILE VISIBILITY
- b. The target area and targets must be identifiable by the aircrew through the appropriate sight or sensor prior to firing. Pilots must confirm to the RNOIC or RSO, sufficient visibility exists for firing at each firing position.

11-7 NIGHT OPERATIONS

- a. When operations are being conducted at night, ground personnel will always carry a flashlight or wear a head lantern and ensure they are equipped with red lenses. If the target or impact area is obscured a cease fire will be initiated.
- b. Night hover firing with the Telescopic Sight Unit (TSU) may be conducted if the target can be positively identified through the TSU and the right and left limits of the target area are identifiable.

11-8 SAFETY

- a. All aircraft:
 - (1) Armament subsystems are considered safe for range traffic pattern operations under switches cold/off conditions. Switches cold/off does not include pulling circuit breakers which would un-ground the system. Refer to the appropriate TM for correct safety procedures for each weapon system.
 - (2) Aircraft will only commence course and/or place switches in hot status after cleared by the RNOIC/RSO responsible for that position. Switches will be placed in cold status immediately upon completion of the mission and before weapon systems are pointed out of the safety limits for the mission.
 - (3) Operation and position of the arming switch is the responsibility of the instructor pilot or pilot in command.
- b. Rotary-wing:
 - (1) Aircraft must be grounded prior to any work being performed and before the aircrew enters or exits the aircraft.
 - (2) Armed aircraft will be rendered safe before refueling.
 - (3) Unit commanders will ensure that all external jettison systems are operable and explosive cartridges installed prior to arming external stores.
 - (4) When conducting Nap of the Earth (NOE) hover fire, the weapon systems will not be armed until arriving at the AFP and are pointed within the prescribed safety limits.

11-9 REFUELING

- a. Aircraft refueling will be conducted in accordance with FM 10-67-1 and the appropriate operator's manual.
- b. Forward Arming and Refueling Point (FARP) operations will be in accordance with guidance in Chapter 10, paragraph 10-6.

11-10 AMMUNITION

- a. Requirements in this section are aviation specific and in addition to those directed by other parts of this chapter. All helicopter activity will be in accordance with FTIG Regulation 95-1.

b. Administrative, utility, cargo, and non-loaded combat helicopters will not be parked closer than 100 meters from loaded combat helicopters and/or ready ammunition sites on the Range Complex.

c. During active aerial range operations the separation of unarmed aircraft parking areas from combat aircraft parking areas and their ready ammunition storage facilities and ammunition and explosives cargo areas will be considered a unit function and handled according to the unit SOP. When unit range operations cease for the day the standard minimum 100 meter distances will again apply.

d. Approach and departure zones for helicopters to field helipads on any Range Complex facility will be routed to prevent them from passing over ammunition and explosives contained at the facility.

e. Damaged, defective, or misfired ammunition will be stored in a separate bunker or designated storage location at least 50 meters from equipment, landing positions, other ammunition, fuel, and personnel. Damaged, defective, and misfired ammunition will be repackaged and returned to the ASP. Units will call the ASP, and ASP personnel will ensure this ammunition is safe to transport back to the ASP.

f. A report of a lost round will be submitted to Range Operations whenever the impact of a projectile is not observed by the firer or the observer. The report will include:

- (1) Type of round.
- (2) Launch point, AFP or grid, and azimuth fired.
- (3) Grid location of intended target.
- (4) Estimated point of impact.

11-11 HELICOPTER IN-FLIGHT EMERGENCIES

a. Aircraft experiencing an emergency will immediately contact the RNOIC stating “MAYDAY...MAYDAY” and call sign. Upon hearing a “MAYDAY CALL”, all other aircraft will go “SWITCHES COLD”, cease transmitting but continue to monitor, and land at the nearest helipad other than the pre-designated emergency pad or where the emergency is in progress. The emergency aircraft will report location, nature of emergency, and ordnance on board.

b. When in-flight emergencies occur, the Pilot in Command (PIC) must evaluate the situation and make the final decision on where and when he will land his aircraft. He can deviate from landing AS SOON AS POSSIBLE only when the nature of the emergency renders immediate field site landing hazardous to the crew and/or the aircraft.

c. If an aircraft must make a forced landing within the IMPACT AREA (DANGER AREA), the PIC must evaluate the post crash situation and determine whether the danger of exiting the aircraft into a live dud area outweighs the danger of remaining in the aircraft until Range Operations/EOD personnel arrive at the scene.

d. If the situation requires the jettison of external ordnance, primary locations to consider should be along main impact area roads away from targets to facilitate recovery.

e. For malfunctions other than “hot or hung ordnance” or “runaways” the system will be disarmed and the aircraft will immediately proceed to a pre-designated arming pad and land with the system oriented down range.

f. Runaways will be maintained in a down range direction until stopped and/or safe.

g. When a situation occurs involving hung and/or hot ordnance, primarily with rockets or missiles, where there is a partial firing of the ordnance and it does not detach from the aircraft and/or cannot be placed in a “SAFE”

condition:

- (1) Declare "CEASE-FIRE" and keep the aircraft oriented "downrange."
- (2) Once cleared by the RNOIC or RSO an attempt should be made to relocate the aircraft to a pre-designated ordnance pad on the range cleared of all ordnance and personnel.
- (3) If the aircraft cannot return to the pad while remaining oriented "downrange," the pilot must land in a location where he can maintain his orientation "downrange." Primary landing sites in the Impact Area will be on the main roads away from prominent targets.
- (4) Personnel must wait a minimum of 30 minutes after the aircraft has landed before attempting to clear hung or hot ordnance. The RNOIC/RSO should verify the time of the incident and inform appropriate personnel.
- (5) In no case will the RNOIC/RSO clear personnel or aircraft to proceed down range until the situation is cleared.
- (6) After the 30 minute time limit has elapsed an attempt can be made to SAFE the ordnance and remove it from the aircraft. If the aircraft is located in the Impact Area all movement to and from the aircraft will be done with the assistance of Range Operations/EOD personnel. Unit armament personnel will conduct ordnance safety procedures.
- (7) The RNOIC can request release from check fire once the incident is resolved and all personnel and aircraft are clear of the downrange area.
- (8) Should a pilot suspect he has lost communication he will immediately go "SWITCHES COLD" and attempt to contact the RNOIC, tower, another aircraft, or Range Operations using all available frequencies and radios. If unable to contact anyone the aircraft will:
 - (a) Continue to transmit intentions in the blind.
 - (b) Maintain separation from all other aircraft, climb 500 feet AGL, and execute a Right traffic pattern inside the normal flow of traffic.
 - (c) When on final, the pilot will flash landing lights to indicate to the RNOIC/RSO that he has lost communications. Using caution, the pilot will land on an available ordnance pad and shut down.
 - (d) Under no circumstances will an aircraft continue downrange once it is recognized that communications have been lost.
 - (e) If the exact location of a downed aircraft is unknown, the RNOIC will utilize other aircraft in the pattern to pinpoint the position.
 - (f) During an emergency the RNOIC will cease all operations of non-involved aircraft. These aircraft will set down in the Staging Area or return to MUIR AASF.
 - (g) Range Operations will be notified immediately of any emergency situation with the following
 - (1) Location and description of the accident/incident, time of occurrence, and possible injuries.
 - (2) Type of aircraft and ordnance involved.
 - (3) Support required.
 - (h) Range Operations will request crash rescue, medical, and fire support as requested or determined necessary.

11-12 AERIAL GUNNERY RANGE SOP

A complete information packet for aerial gunnery is available at Range Operations. It will be provided to the RNOIC after his attendance at the weekly coordination briefing. This SOP applies to all training and firing that is conducted for familiarization and qualification by both AH-1 Crews, UH-60, AH-64, UH-72 and CH-47 Door Gunners.

CHAPTER 12
TANK/BRADLEY GUNNERY

12-1 GENERAL

- a. FTIG does not have an approved Live Fire Tank Gunnery Range.
- b. FTIG does have a MILES LTIDS configured range (Range 27).

12-2 WEAPONS/AMMUNITION AUTHORIZED

- a. All MILES interfaced weapon systems having a LRF with EYESAFE FILTER installed.
- b. The only authorized ammunition supporting MILES simulated gunnery is as follows:
 - (1) Blank 7.62mm (A111)
 - (2) Blank .50 cal (A598)
 - (3) ATWSS (L367)
- c. Coaxial weapons, TC and Loaders mounted weapons, for the M1 and M2 series systems may be fired on Range 36.
- d. Bradley live fire (25mm) is authorized on Range 37. Only one authorized firing point with a limited target array.

CHAPTER 13

VIRTUAL SIMULATION TRAINING DEVICES

13-1 GENERAL

a. Simulation training devices located at FTIG are assets available for use by request. Units must request the use of any simulator IAW Range Scheduling Chapter 1, paragraph 1-8. Failure to comply with Chapter 1, paragraph 1-8 may result in the loss of training at a location or with a device. It must be understood that using these simulators is contingent upon the functional status of the simulator which can be downgraded any time due to maintenance.

b. FTIG Simulations devices require qualified personnel to ensure proper operation. Each device listed below will specify who is responsible for the operation and or accountability of the device and its components. There are three possibilities: FTIG Simulations personnel; Contractor provided personnel; and Unit provided personnel. Any unit provided personnel must show proof of certification for the device intended to be used. Proof of certification must be a DA 1059; Certificate of completion from a DOD proponent or DD 1902.

c. Units conducting simulation training at FTIG are to contact the Simulations Office NLT 2 weeks prior with their training outline to ensure appropriate preparation. Contact with the operator of a system does not replace the scheduling request mentioned above; it is an additional requirement and is addressed further below.

d. Building 5-100, located within walking distance of the virtual simulation devices, is a multi-purpose classroom. This classroom can be requested like any other resource IAW Range Scheduling Chapter 1, paragraph 1-8. The classroom is furnished with tables and chairs, is reconfigurable, has multiple RCAS drops, and holds 40 personnel.

e. The Simulations Office is located in building 5-80. All equipment subject to hand receipting is coordinated from this office. Questions regarding FTIG Simulation procedures or to inquire about an operator certification class should be addressed to either 717-861-9776 or 717-861-9775.

13-2 MARKSMANSHIP TRAINING DEVICES

a. Engagement Skills Trainer (EST 2000) and Firearms Training Systems (FATS IV) are computer-based weapons trainers simulating weapons training events which can lead to collective live fire exercises and individual/crew served weapons qualification. These systems are used primarily as indoor multipurpose, multilane, small arms, weapons training simulators.

b. Capabilities:

(1) The EST 2000 and FATS IV are not replacements for traditional live fire training, but training enhancers, which are economical to operate and capable of providing safe training regardless of weather.

(2) The weapons used on these systems are not capable of firing live rounds, holding actual magazines or chambering live rounds, however, actual function and operation is the same as real weapons, to include amounts of ammunition that can be fired before reloading is required. These systems are also capable of conducting limited visibility training, replicating various environmental conditions, and when appropriate the training can be escalated.

(3) The EST 2000 and FATS IV have the capabilities to utilize a Close Combat Optic (CCO) and Backup Iron Sight (BIS) on select weapons. Although there are limited resources of CCO's and BIS's available for use, a requesting unit may have to provide their own CCO's and or BIS's.

c. Units are responsible for providing their own TRAINERS; however, you are provided FTIG Simulations personnel for the operation of the simulator. All Trainers and Observer Controllers (OC) should be Subject Matter Experts (SMEs) on the type of training to be conducted.

*NOTE: Units should reference the Standards in Training Commission (STRAC) to ensure any weapons training requirements are IAW current guidelines.

13-3 ENGAGEMENT SKILLS TRAINER 2000 (EST)

a. The EST 2000A and the EST2000B are both located in building 5-101. The EST 2000C is located in building 5-194. The EST2000 is the only small arms training system validated by the US Army Infantry School which provides initial and sustainment marksmanship training, static unit collective gunnery and tactical training, and Shoot/Don't Shoot training. EST 2000 can train up to ten soldiers simultaneously, depending on the type of training.

b. The following weapon types are available for use on the EST 2000 at FTIG:

- (1) M9 Pistol
- (2) M1200 Shotgun
- (3) M4A4 Carbine
- (4) M4M320A1 Carbine
- (5) M16A4 Rifle
- (6) M320 Grenade launcher
- (7) M249 Squad automatic weapon
- (8) M240B Machine gun
- (9) M2 Machine gun
- (10) MK19 Automatic grenade launcher
- (11) M136 AT4 Light anti-armor weapon

c. Additional Requirements: Units must contact the device operator NLT 2 weeks out from the proposed training date, and provide a written training outline. The Simulations Office can be reached at 717-861-9775, Building 5-80 (See Appendix P for a training outline example).

13-4 FATS IV (FIRE ARMS TRAINING SIMULATOR)

a. The Fire Arms Training System-IV I is located in building 5-116. It is an indoor, multipurpose, multilane, small arms training simulator. It also simulates squad collective gunnery and tactical tasks for defensive, offensive, and ambush missions. The FATS system can train up to twelve personnel simultaneously, depending on the type of training.

b. A key difference from the EST 2000 is that the FATS is capable of conducting offensive missions.

c. The following weapons are available for use on the FATS IV:

- (1) M9 Pistol

- (2) M4A4 Carbine
- (3) M16A2 Rifle
- (4) M203 Grenade launcher
- (5) M249 Squad automatic weapon
- (6) MK19 Automatic grenade launcher
- (7) M136 AT4 Light anti-armor weapon

d. Additional Requirements: Units must contact the device operator NLT 2 weeks out from the proposed training date, and provide a written training outline. The Simulations Office can be reached at 717-861-9775, Building 5-80 (See Appendix P for a training outline example).

13-5 VIRTUAL CONVOY OPERATIONS TRAINER (VCOT)

a. The VCOT provides training for convoys under realistic conditions through various terrain databases. The VCOT assists in ensuring that soldiers are trained to anticipate/react to ambushes and other insurgent actions from all possible directions by allowing the crew to observe, maneuver, and fire their weapons through a full 360 degree circumference. Crewmembers are not limited by fixed screen projections; they have a complete and continuous view of the entire virtual world around them as they would under real combat conditions.

b. The VCOT is a medium-fidelity critical task trainer for convoy crew members. The system consists of HMMWV M1025 Truck crew trainers operating on a simulated battlefield to support crew gunnery and convoy operations training. Each vehicle simulator consists of one each driver, gunner and vehicle commander stations.

c. Driver and gunner crew stations are simulated. The driver station provides a view of the virtual battlefield using three 17" flat panel displays. The driver station provides realistic controls for steering, transmission gear selection, brake and accelerator pedals, and parking brake for control of the vehicle during exercises. The gunner station consists of a ring-mounted .50 cal Heavy barrel Machine Gun. The gunner views the battlefield through a helmet-mounted display. Each vehicle consists of radio equipment to conduct proper command and control during an exercise.

d. The AAR station is equipped with the tools necessary to conduct a mission brief and full scenario playback including audio. At any time during an exercise or an AAR the point of view can be changed from tethering a certain vehicle or to a "bird's eye view".

e. The VCOT has four gunner stations, in which two of them double as Individual Gunnery Trainer (IGT) stations. The purpose of an IGT is to train Warfighters in proficiency of un-stabilized gunnery. It follows the training guidelines established in the HBCT and CSS gunnery manuals. The .50 cal IGT trains and sustains individual gunnery skills for employing the M2 .50 Cal machine gun from the gunner's position of a HMMWV.

f. Units are responsible for providing their own TRAINERS; however, you are provided FTIG Simulations personnel or Government Contract personnel for the operation of the simulator. All Trainers and Observer Controllers (OC) should be Subject Matter Experts (SMEs) on the type of training to be conducted.

g. Additional Requirements: Units must contact the Simulations Office NLT 2 weeks out from the proposed training date, and provide a written training outline. The Simulations Office can be reached at 717-861-9775, Building 5-80 (See Appendix P for a training outline example). This is a deployable device and can be used at locations other

than FTIG, only in support of military training. Special arrangements and coordination must be made NLT 60 days prior to scheduled event. POC for movement can be reached at 717-861-9775.

13-6 OPERATOR DRIVER SIMULATOR (ODS)

a. The Operator Driver Simulator is a high fidelity immersive technical skills trainer for teaching soldiers how to safely drive vehicles in the army inventory. The ODS provides realistic tactile/haptic feedback to the student through the steering wheel, pedals and dashboard controls that replicate the experience of driving the actual respective vehicle. The ODS also models the effects of wind, temperature, precipitation, traction, tire pressure, and road surface on the handling characteristics of the vehicle. The system can simulate driving conditions in most foreign areas of operations including Afghanistan, as well as, Iraq. Conditions can be varied from flat open terrain to the treacherous off-road mountain passes in Afghanistan.

b. Current configuration allow for training on the following vehicles: M939 5-TON Truck, Family of Medium Tactical Vehicles (FMTV), M1074 PLS Truck, M915 Truck, Heavy Expanded Mobility Tactical Truck (HEMTT), M911 Heavy Equipment Transporter (HET) with trailers, COUGAR, and HUMVEE.

c. Units are responsible for providing their own TRAINERS. All Trainers and Observer Controllers (OC) should be Subject Matter Experts (SMEs) on the type of training to be conducted. This device will be hand receipted and operated by unit provided personnel. Personnel must be certified and have proof of their training IAW chapter 13-1 paragraph b. On occasion this device can be operated by Simulation or Contractor personnel under special circumstances.

d. Additional Requirements: Units must contact the device operator NLT 2 weeks out from the proposed training date, and provide a written training outline. The Simulations Office can be reached at 717-861-9775, Building 5-80 (See Appendix P for a training outline example). This is a deployable device and can be used at locations other than FTIG, only in support of military training. Special arrangements and coordination must be made NLT 60 days prior to scheduled event. POC for movement can be reached at 717-861-9775.

13-7 MINE RESISTANT AMBUSH PROTECTED EGRESS TRAINER (MET)

a. The MRAP MET is based on the same technology as the HMMWV Egress Trainer (HEAT). It safely puts soldiers in real or semi-real vehicle cabs that can rotate 360 degrees, stopping at any angle, to teach soldiers proper egress procedures.

b. The MRAP MET is located in building 5-189. It is a training system designed to support egress training and provide vehicle crew members the confidence needed to safely egress from vehicles in the event of a rollover. All MRAP MET system vehicle variants consist of a simulated vehicle cab, Instructor/Operator Station (IOS), visual monitoring system, and two way speaker system. Via the IOS, the instructor is capable of conducting crew training, introducing malfunctions and emergency egress situations, monitoring each trainee's performance, and providing AAR feedback.

c. This system must be hand receipted and operated by unit personnel. Personnel must be certified and have proof of their training IAW chapter 13-1 paragraph b.

d. Additional Requirements. Units must coordinate the draw and turn in of the system with the Simulations Office prior to the requested time to ensure staff availability. Failure to coordinate may result in delayed draw/turn in. This coordination is arranged by contacting the Simulations team at 717-861-9775.

13-8 COMMON DRIVER TRAINER (CDT)

a. The CDT is intended to provide initial and sustainment driver training, and is located in building 5-102.

b. The Common Driver Trainer consists of a simulated vehicle cab, instructor/operator station, After Action Review (AAR) station, visual system, full motion platform and a computational system. Via the IOS, the instructor is capable of selecting a visual scene, viewing the scene, introducing malfunctions and emergency control situations, monitoring each trainee's performance and providing recorded AAR feedback. The reconfigurable common platform will allow driver training for various U.S. Army tactical vehicles.

c. Current variants of the CDT are limited to the Stryker family of vehicles and the MRAP family MATV, RG-33, RG-31, CAIMAN, and MAXPRO. Long term planning includes the fielding of cab variants for drivers training on additional vehicle types.

d. Units are responsible for providing their own TRAINERS. All Trainers and Observer Controllers (OC) should be Subject Matter Experts (SMEs) on the type of training to be conducted. This device will be hand receipted and operated by unit provided personnel. Personnel must be certified and have proof of their training IAW chapter 13-1 paragraph b. On occasion this device can be operated by Simulation or Contractor personnel under special circumstances.

e. Additional Requirements: Units must contact the Simulations Office NLT 2 weeks out from the proposed training date, and provide a written training outline. An operator for this system can be reached at 717-861-9775, Building 5-80 (See Appendix P for a training outline example).

13-9 HUMVEE EGRESS ASSISTANCE TRAINER (HEAT)

a. The HEAT is intended to provide training to Soldiers on the effects of rollover and to conduct drills that will provide the skills to react properly during a rollover and/ or egress situation in an up-armored High-Mobility Multi-Wheeled Vehicle (HMMWV).

b. Both the HEAT A and HEAT B are located in building 5-189. The HEAT increases the situational awareness of vehicle rollover by permitting the instructor to observe a HMMWV crew performance and reaction to emergency conditions without requiring the use of an actual vehicle. The device reinforces the importance of seat positioning, wearing seatbelts, demonstrating the feeling of being disoriented and the actual effort required to execute rollover procedures. The trainer allows individuals and crews to rehearse and physically execute the necessary steps required to survive a vehicle rollover.

c. This device will be hand receipted and operated by unit provided personnel. Personnel must be certified and have proof of their training IAW chapter 13-1 paragraph b.

d. Additional Requirements: Units must coordinate the draw and turn in of the device with FTIG Simulations personnel prior to the requested time to ensure staff availability. Failure to do so may result in delayed draw/turn in. This coordination can be arranged by contacting the FTIG Simulations section at 717-861-9775.

13-10 CALL FOR FIRE TRAINER (CFFT)

a. The CFFT is a training system that provides simulated battlefield scenarios for the training of Field Artillery Forward Observer (FO) tasks. This system can simulate artillery and mortar fires on a variety of stationary and moving targets, and the CFFT can be used as a CAS (close air support) with Attack Helicopters and Naval Gunfire. This is a procedural trainer designed to provide basic instruction to the novice and cantonment training to the qualified FO. The student will experience munitions affects, terrain scenes, moving targets and target scenarios that are not practical in garrison or training areas.

b. The CFFT 1:30 training system is a fixed site system located in Building 5-188 and designed to train up to thirty Soldiers with one instructor.

c. Units are responsible for providing their own TRAINERS. All Trainers and Observer Controllers (OC) should be Subject Matter Experts (SMEs) on the type of training to be conducted. This device will be hand receipted and operated by unit provided personnel. Personnel must be certified and have proof of their training IAW chapter 13-1 paragraph b. On occasion this device can be operated by Simulation or Contractor personnel under special circumstances

d. Scheduling for this device is IAW "Range Scheduling" Chapter 1, paragraph 1-8.

13-11 MOBILE CLOSE COMBAT TACTICAL TRAINER (CCTT)

a. Close Combat Tactical Trainer (CCTT) supports maneuver training of armor, mechanized infantry, cavalry, transportation, and recon units from Platoon through Company level. The system provides simulated Gunnery ranges for both M1/ M2 crews. The system is fully mobile and can be utilized at Ft Indiantown Gap or at the requesting unit's armory. The primary training audience operates from full-crew simulators. The system is equipped with the latest Force XXI Battle Command Brigade-and-Below (FBCB2) in support of training the digital force. Semi-automated forces workstations provide additional supporting units (i.e., aviation and air defense artillery) and all opposing forces within the battlefield. Thus, while maneuver units constitute the CCTT primary training audience, all battlefield operating systems are represented in the simulation. This ensures effective simulation within a combined arms training environment that encompasses daylight, night and multiple weather conditions and with multiple terrain options (desert, urban, wooded and mountainous).

b. The MCCTT is operated for the requesting unit by Government provided contractors.

c. Scheduling for this device is IAW "Range Scheduling" Chapter 1, paragraph 1-8.

d. Questions and additional information on training opportunities can be answered by contacting the MCCTT team at 717-861-2858.

13-12 VIRTUAL BATTLESPACE 2

a. VBS2 (Virtual Battlespace2) is a fully interactive, three-dimensional training system providing a premium synthetic environment suitable for a wide range of military training and experimentation purposes for up to 45 personnel. The personnel training utilize laptops and off the shelf technology networked together to create the element size required. The VBS2 can accommodate squad and platoon-sized elements and limited company and battalion-sized tactical operations.

b. VBS2 offers realistic battlefield simulations and the ability to operate land, sea, and air vehicles. Instructors may create new scenarios and then engage the simulation from multiple viewpoints. The squad-management system enables participants to issue orders to squad members.

c. VBS2 may be used to teach doctrine, tactics, techniques, and procedures during squad and platoon offensive, defensive, and patrolling operations. VBS2 delivers a synthetic environment for the practical exercise of the leadership and organizational behavior skills required to successfully execute unit missions.

d. VBS2 is suitable for training small teams in urban tactics, entire combat teams in combined arms operations or even non-military usage such as emergency response procedures in lethal and non-lethal environments or terrain visualization.

e. VBS2 provides improved simulation of complex urban areas, including destructible buildings, round penetration through walls and operable and destructible doors. Weapon platforms are capable of thermal imaging, simulation of fire control systems and turret override. Multiple vehicle turrets are possible.

f. The After-Action-Review module (AAR) allows detailed review of a completed training mission, with every player, AI, vehicle movement being recorded, as well as any bullet path and any destruction to objects or terrain.

g. VBS2 is operated for the requesting unit by Government provided contractors.

h. Scheduling for this device is IAW "Range Scheduling" Chapter 1, paragraph 1-8.

i. Additional Requirements: Units must contact the Simulations office NLT 2 weeks out from the proposed training date, and provide a written training outline. The Simulations office can be reached at 717-861-9775, Building 5-80 (See Appendix P for a training outline example).

13-13 STRYKER MOBILE GUN SYSTEM ADVANCED GUNNERY TRAINING SYSTEM (MGS-AGTS)

a. The MGS-AGTS is used to develop and sustain individual, crew and platoon precision gunnery skills to a level of proficiency that permits transition to live-fire training.

b. The MGS-AGTS is a gunnery training simulator for vehicle commander/gunner teams for the Stryker MGS vehicle. It is rapidly transportable and deployable. It features a high-fidelity crew compartment replicating the vehicle's turret and fire control system in both physical and functional aspects. The MGS-AGTS presents the vehicle commander and gunner with a full range of simulated engagement situations. The system trains both fully operational and degraded mode gunnery techniques under a wide variety of conditions. The pre-programmed, computer-controlled exercises vary in target type, number, range, vehicle and target motion, and visibility. This system is capable of networking to provide section, platoon and company collective gunnery training. An AAR capability is provided for exercise management.

c. This device must be hand receipted and operated by unit personnel. Personnel must be certified and have proof of their training IAW chapter 13-1 paragraph b.

d. Additional Requirements: Units must coordinate the draw and turn in of the device with the Simulations team no less than two weeks prior to the scheduled training period. Failure to do so may result in delayed draw/turn in. Coordination must be arranged by contacting the Simulations team at 717-861-9775.

13-14 DISMOUNTED SOLDIER TRAINING SYSTEM (DSTS)

- a. DSTS is a fully immersive virtual trainer focused on the individual Soldier and squad-level training that combine gaming technology in a virtual, 360-degree training environment using un-tethered weapons. The DSTS is a stand-alone virtual reality simulator and consists of nine un-tethered manned modules, one exercise control/After Action Review workstation, and one SAF workstation. Each manned module contains a head mounted display, replica weapon, sensor system and a wearable computer pack. These networked systems provide an immersive training environment for individual Soldiers and squad members.
- b. DSTS can train a multitude of individual Soldier tasks, as well as, collective tasks at the squad level. Soldiers can go from training in virtual garrison environment on an IWQ range to conducting Battle Drill 6 on a virtual Taliban compound in the mountains of Afghanistan. The level of complexity of each training session is completely up to the unit commander.
- c. The DSTS is operated by Government provided contractors, however the unit must provide their own TRAINERS. All trainers and Observer Controllers should be SME's on the type of training you wish to conduct. The provided contractors are to operate the system, not teach doctrine, techniques or tactics.
- d. Additional Requirements: Units must contact the Simulations Office NLT 2 weeks prior to the proposed training date, and provide a written training outline. The Simulations Office can be reached at 717-861-9775 Building 5-80 (See Appendix P for training outline example).

13-15 MINE RESISTANT AMBUSH PROTECTED-VIRTUAL VEHICLE TRAINER (MRAP-VVT)

- a. The MRAP-VVT consists of three semi-trailers. Trailer one contains one RG-31 vehicle station, TALON and an IOS/AAR station. Trailer two contains two BUFFALO and two HUSKY vehicle stations. Trailer three contains four RG-31 vehicle stations. Each trailer can be operated separately to focus on individual training or the three trailers can be interlinked to provide a collective training experience.
- b. The MRAP-VVT can be used to train basic and advanced skills for route clearance operations including proper response to a wide array of IED's and explosive hazards while realistically simulating combat conditions such as weather, terrain, visibility, vehicle operating conditions, IED's and customizable opposing enemy forces. The MRAP-VVT can also be used to train operating skills of the BUFFALO and HUSKY.
- c. Units are responsible for providing their own TRAINERS; however, you are provided FTIG Simulations personnel or Government Contract personnel for the operation of the simulator. All Trainers and Observer Controllers (OC) should be Subject Matter Experts (SMEs) on the type of training to be conducted.
- d. Additional Requirements: Units must contact the Simulations Office NLT 2 weeks prior to the proposed training date, and provide a written training outline. The Simulations Office can be reached at 717-861-9775 Building 5-80 (See Appendix P for training outline example).

CHAPTER 14

CONSTRUCTIVE SIMULATIONS

14-1 GENERAL

a. Simulation training devices located at FTIG are assets available for use by request. Units must request the use of any simulator IAW Range Scheduling Chapter 1, paragraph 1-8. Failure to comply with Chapter 1, paragraph 1-8 may result in the loss of training at a location or with a device. It must be understood that using these simulators is contingent upon the functional status of the simulator which can be downgraded any time due to maintenance.

b. FTIG Simulations devices require qualified personnel to ensure proper operation. Each device listed below will specify who is responsible for the operation and or accountability of the device and its components. There are three possibilities: FTIG Simulations personnel; Contractor provided personnel; and Unit provided personnel. Any unit provided personnel must show proof of certification for the device intended to be used. Proof of certification must be a DA 1059; Certificate of completion from a DOD proponent or DD 1902.

c. Units conducting simulation training at FTIG are to contact the Simulations Office NLT 2 weeks prior with their training outline to ensure appropriate preparation. Contact with the operator of a system does not replace the scheduling request mentioned above; it is an additional requirement and is addressed further below.

d. Building 5-100, located within walking distance of the virtual simulation devices, is a multi-purpose classroom. This classroom can be requested like any other resource IAW Range Scheduling Chapter 1, paragraph 1-8. The classroom is furnished with tables and chairs, is reconfigurable, has multiple RCAS drops, and holds 40 personnel.

e. The Simulations Office is located in building 5-80. All equipment subject to hand receipting is coordinated from this office. Questions regarding FTIG Simulation procedures or to inquire about an operator certification class should be addressed to either 717-861-9776 or 717-861-9775.

14-2 MISSION TRAINING COMPLEX

Mission Training Complexes (MTCs) provide pre-mobilization mission command and staff training in digital and analog environments IAW ARFORGEN to ARNG units at home station or at 5 fixed locations to enable units to meet collective training aim points. The MTC-FTIG facilitates training focused by the commander on the unit mission requirements with an emphasis on Live, Virtual, Constructive and Gaming ISO the US Army Training Strategy Model. The MTC-FTIG is capable of providing individual and full spectrum staff and collective training.

14-3 TRAINING BRANCH CAPABILITIES

a. The MCS-ST provides training and support on the following Mission Command Systems:

(1) **Command Post of the Future (CPOF)** is an executive-level planning and communication tool that provides situational awareness and collaborative tools for a unified picture of the operational environment. By including real-time collaboration, integrated VoIP (Voice over Internet Protocol), and MCS feeds, users can gain situational awareness from one system rather than several. Through a shared visual workspace the Commanders and staff can gain situational understanding (SU) by analyzing data, sharing ideas, and vision thus applying analysis and judgment to the common operational picture.

(2) **Advanced Field Artillery Tactical Data System (AFATDS)** is an automated Command, Control, and Communications (C3) system that assists in managing operational and tactical fires in support of the maneuver as well as providing technical control of firing elements. It provides the commander with integrated, responsive, and reliable fire support. AFATDS is a fully automated fire support system, which minimizes the sensor-to-shooter timeline and increases the hit ratio. It provides fully automated support for planning, coordinating and controlling mortars, field artillery cannons, rockets, guided missiles, close air support, attack helicopter and naval gunfire, for close support, counter fire, interdiction, and deep operations.

(3) **Battle Command Sustainment Support System (BCS3)/Sustainment System Mission Command (S2MC)** provides logistics information critical to operations and enhances the ability to manage sustainment operations through end-to-end visibility. BCS3/S2MC fuses sustainment information from numerous sources into one user-defined, mission focused and tailored map-centric visual display by providing graphics that are scalable to the display requirements of tactical, operational and strategic users' needs. BCS3/S2MC provides in-transit visibility to show critical supply and transportation asset information by displaying asset visibility throughout the supply chain from the point of shipment to final destination and tracking resources and establishing automated alerts when critical resources require tracking or are below required levels.

(4) **Force XXI Battle Command, Brigade and Below (FBCB2) / Joint Capability Release (JCR)** provides situational awareness and command and control to the lowest tactical echelons. It facilitates a seamless flow of battle command information across the battle space, and interoperates with external command and control sensor systems. The end result is a vertical and horizontal integration of the digital battle space and brigade-and-below tactical unit levels.

(5) **Distributed Common Ground Station – Army (DCGS-A)** is the ISR Gateway to Joint, Interagency, Allied, Coalition and National data, information, intelligence and collaboration. DCGS-A provides maneuver brigades and battalions access to theater and national intelligence collection, analysis, early warning and targeting in addition to the local tactical situation.

(6) **The Tactical Airspace Integration System (TAIS)** automates Army airspace Command and Control (C2), operations, and air traffic services. It is the key integration system for inputs to the joint airspace control order and distributes and builds airspace C2 overlays. The TAIS provides the airspace view of the common operating picture (COP) and works best when co-located other MCS and enablers like the Air and Missile Defense Workstation (AMDWs) and the Air Mission Planner (AMPs).

(7) **Battle Command Server (BCS)** provides infrastructure services used by MCS and other tactical operations center (TOC) systems including alerts, messaging, communications, address book, and command and control registry (C2R). BCS is the key piece of the MCS architecture that provides interoperability between the various MCS workstations. Interoperability is achieved through the system as it hosts a number of common services through which data can pass and become readable and/or accessible to all MCS systems on the network. These services include: SQL Database, C2PC Gateway, Near Real Time Server (NRTS), Publish and Subscribe Services (PASS), Data Distribution Services (DDS), Time Server, and C2R Server.

(8) **Effects Management Tool (EMT)** is a client for the AFATDS that serves as a display and entry device for the Host AFATDS to which it is connected. EMT reads information from the AFATDS database and shows this information on a digital map display. This allows the display of unit symbols, battlefield geometries, Fire Support Coordination Measures (FSCMs), and target symbols. EMT allows for data 'drill down' on the object to interrogate them and the agility and responsiveness of the interface is dramatically evident through the display of firing vectors for active fire missions being processed in AFATDS.

(9) **Global Command and Control System – Army (GCCS-A)** is the Army's strategic, tactical and theater command and control system (C2). A key component of the MCS, GCCS-A provides a seamless link of information and data from the strategic Global Command and Control System- Joint to the Army corps elements and below. GCCS-A gives a common picture of Army tactical operations to the Joint and Coalition community, while facilitating interoperability of systems with the Army Command.

14-4 SIMULATIONS BRANCH CAPABILITIES

a. Brigade level: provides brigade and below units with a simulated environment to drive collective training. These systems replicate friendly and enemy units involved in a fictional engagement in order to train staff members on its' tactical operations and ability to command and control units utilizing the latest technology.

(1) Company through Brigade level: Provides simulations and exercise support from company through brigade in either a tactical or non-tactical environment.

(2) Additional requirements:

(3) Any unit wishing to conduct a simulations exercise must complete a mandatory planning conference with the BCTC Site Manager 180 days prior to the date of execution.

(4) For simulation exercises, units should contact their Commanders' Operational Training Assistant (COTA) to analyze the exercise and identify the Commander's intent and objectives. Ideally, this process is completed prior to the mandatory 180 day initial planning conference.

(5) More complex exercises may require additional planning and resourcing time.

(6) Units are responsible for providing their own interactive operators during simulation exercises. BCTC-FTIG will train interactive operators prior to Exercise STARTEX. Coordination for this training will be accomplished during the planning conference cycle.

(7) Scheduling for both training and simulation exercises will be IAW Chapter 1, paragraph 1-8.

(8) Units may contact the BCTC Site Manager (717-861-6729) or Training Chief (717-861-8778) with specific questions regarding training or capabilities.

APPENDIX A

Description of Ranges and Facilities

- a. Reference: Fort Indiantown Gap Military Installation Map (MIM) V731SINDIANTMIM, Edition 003, dated 01-2008.
- b. This annex lists range location, primary use, and available support facilities. Capacities reflect number of personnel per day. Both primary and back-up means of communication must be present and operating on ranges.
- c. Only weapons and ammunition listed with range are authorized for use on that specific range. All ranges require a WAIVER specifying type of weapon, safety restriction, and ammunition to be used. Units desiring to fire a weapon or use ammunition not listed in this appendix must submit a Non-Standard Training Request IAW Appendix M of this regulation.
- d. Use of Tracer ammunition is dependent on daily wildfire danger rating and units must have approval from Range Operations before using tracer ammunition. If the wildfire rating is such that tracer rounds cannot be fired, the ammunition including tracer rounds will be turned in and non-tracer ammunition drawn. **Delinking issued ammunition is prohibited.**
- e. Firing of 5.56mm M855A1 Enhanced Performance Round (EPR) DODIC AB56, AB57 and AB58 ammunition on Ft. Indiantown Gap is prohibited until further notice.

TRAINING FACILITIES FOR STANDARDS IN WEAPONS TRAINING

Purpose. To list those ranges, firing points, training areas, and other training facilities that are available for units to request that will meet weapons training requirements identified in the current DA Pamphlet 350-38, Standards in Weapons Training and the TC 25-8, Training Ranges.

WEAPON SYSTEM	TRAINING EVENT	TYPE RANGE (as per App A TC 25-8)		FTIG RANGE	
		PRIMARY	ALTERNATE	PRIMARY	ALTERNATE
M16/ M4 Series	Zero	25m Range	ARF/MRF w/ 25m boots	8Z, 9Z, 10Z @ 32 ln 13, 13A, 14, 14A, 15, 16 @ 40 ln	3, 5, 5A Various lanes
	Sustainment, Practice, Record Qualification, CBRN ** & Night**	Automated Record Fire-ARF, Modified Record Fire-MRF	25m Range (alternate Course "C")	ARF- 8Q, 9Q MRF- 11 All 3 @ 16 lanes	8Z, 9Z, 10Z, 13, 13A, 14, 14A, 15, 16, 3, 5, 5A *
	Known Distance	1000m KD	N/A	12A 300m 21 ln 8A 500m*** 10ln 37***** 4 ln	6A, 6B**** Various lanes
	Squad Designated Marksman	1000m KD	MPMG	37, 1000m	35,800m 10ln
	Short Range Marksmanship *****	25m Range	ARF/MRF w/ 25m boots	13, 13A, 14, 14A, 15, 16 *****	3, 5, 5A
	Squad/Platoon ARTEP LFX	Infantry Squad Battle Course/ Inf Platoon BC	Multi Purpose Training Range /MPRC	34	TA -special request for SRTA, CCKM
9mm .45 cal .22	Instructional, qualification	Combat Pistol Qualification Course	25m Range, APQC, Alternate Pistol Qual.	7, Computerized @ 15 ln 4, toggle ops @ 10 ln	8Z, 9Z, 10Z, 13, 13A, 14, 14A, 15, 16, 3, 5, 5A
	CBRN**	CPQC	EST	7, 4	EST
	NIGHT**	CPQC	EST	7, 4	EST
	Military Police Qualification	MPFQC/CPQC	25m Range	7, 4	3, 5, 5A

* Ranges have no night fire lights on range or on the targets installed

** NBC & Night fire are normally conducted on EST as primary

*** 8A is only available through special request to Range Operations

**** 6A & 6B- Iron maiden or E silhouettes only (unit layout needs Range Operations approval)

***** 37- Pop ups, Iron maiden or E silhouettes only (unit layout needs Range Operations approval)

***** SRM, CQM are not allowed on Ranges 8Z, 9Z, & 10Z. They are dedicated to supporting the associated qualification range- 8Q, 9Q, 11

NOTE: 9mm/M16/M4 and Law Enforcement variations can be fired in the Live Fire Shoot House Range 32.

WEAPON SYSTEM	TRAINING EVENT	TYPE RANGE (as per App A TC 25-8)		FTIG RANGE	
		PRIMARY	ALTERNATE	PRIMARY	ALTERNATE
M21,M24 7.62 sniper	Zero Zero @ 100m Confirm @ 300m	Automated Sniper Field Fire/ 1000m KD	MPMG/1000m KD	37	35
	Sustainment, Qualification, Night Fire	ASFF	MPMG	37	N/A- FTIG MPMG does not support
M107 .50 cal sniper	Zero @400-600m Confirm @500m	Heavy sniper Weapon Range	MPMG/1000m KD	*	
	Sustainment, Qualification, Night Fire	HSW Range	MPTR	*, HSW Future Plan	N/A
Shotgun	Instruction/ Qualification	25m Range	N/A	13, 13A, 14, 14A, 15, 16, 17	3, 5, 5A
M203/ M320/ M79 Grenade Launcher	Zero	Grenade Launcher range	N/A	2- TP-T 4 ln	23D-HE 4 ln **
	Instruction/ Qualification	Grenade Launcher range	N/A	2- TP-T	23D-HE **
	Grenadier Gunnery combo 5.56 & M203/M320	Urban Assault Course Station 3	N/A	Range 20 Range 31 SRTA instead of 5.56	N/A
M249 SAW	10m practice or record	Multi Purpose Machine Gun	25m range	35	13, 13A, 14, 14A, 15, 16
	Qualification Table II & III	MPMG	N/A	35	N/A
	LFX/STX	ISBC/ IPBC	MPTR/MPRC	35	N/A

*M107 firing can be accommodated as per special request to Range Operations, but at present FTIG does not have a dedicated range for this purpose

** Range 23D creates conflicts with other ranges.

WEAPON SYSTEM	TRAINING EVENT	TYPE RANGE (as per App A TC 25-8)		FTIG RANGE	
		PRIMARY	ALTERNATE	PRIMARY	ALTERNATE
M2 HB MG	10m zero/ Practice	25m Range	MPTR	36 @ 4 ln	N/A
	Tables I-IV	MPMG	None	36	N/A
	Table V*	MPTR	MPRC	38 @ 1ln	N/A
	Table VI**	MPMG	MPTR	36	N/A
	LFX/ STX				
M240B	10m practice or record	MPMG	N/A	35	15,16
	Qualification Table II & III	MPMG	N/A	35	N/A
	LFX/STX	ISBC/ IPBC****	MPTR/MPRC	N/A **	N/A
Hand Grenade	Instructional/ Qualification	HG Qualification Course	N/A	23A, south 5 ln	N/A
	Live Grenade Familiarization	HG Fam.	N/A	23A, north	N/A
M18A1/A2 Claymore Mine	Live Fire	N/A	N/A	Forward Observation (FO) bunker	N/A
TOW/ITAS	Table I-IV TFT	N/A	N/A	N/A	N/A
	Table V –XII TFFT ***	N/A	N/A	27	27
	LFX Inert Warhead	N/A	N/A	24B TOW @ 1ln	N/A

* M2 Table V is mounted (organic platform) RG 38 is the only range that can accommodate the stationary targets (cannot accommodate moving targets)

** M2 Table VI is a range card LFX, can be mounted or dis-mounted

*** TOW table V-XII uses subcal L592

**** As designed FTIG ISBC, RG 34, does not accommodate 7.62mm fire.

WEAPON SYSTEM	TRAINING EVENT	TYPE RANGE (as per App A TC 25-8)		FTIG RANGE	
		PRIMARY	ALTERNATE	PRIMARY	ALTERNATE
DRAGON*	DGT Practice	N/A	N/A		
	DGT Qualification	N/A	N/A		
	DFTT advanced tracking	N/A	N/A		
JAVELIN	All**	N/A	N/A	N/A	N/A
	Live Fire Fam	N/A	N/A	38, 1 ln	N/A
AT-4	Table I to V***	N/A	N/A		
MK19	Table I to IV	MPMG	MPTR	36 TPT only	N/A
	Live Fire Fam	HE Impact Area	N/A	24B MK19	N/A
Helicopter Weapons	7.62mm MG 20mm TP 30mm TP 2.75" inert rocket	DAGIR	AGR	23Door ****	N/A

*ALL Dragon events use subcal L592

** No training ammunition is required for any Javelin event.

*** All AT 4 events use M287 firing A358/ 9mm bullet w/ tracer

**** 23Door accommodates Familiarization fire only, is not "to standard" target array, targets are hard targets in impact area

APPENDIX A Range Road Ranges

RANGE FCC	GRID	TRAINING/ APPROVED AMMUNITION	FIRING POINTS	TOWER/ PA	BUILDING & TYPE*	LATRINE/ PORTA JOHN	WEAPONS RACK	BLEACHERS/ COVERED	MESS PAVILION	AMMO BREAKDOWN BUILDING	PHONE
2	UK69127933	M203/M320 GL 40mm TP-T Fam-Qual	4	Yes	No	No	No	Yes	No	No	Yes
17884			4 FPs do all 4 tasks	No		Yes		No			Outside
3	UK68867916	5.56, .22, .38, .40, .45, 9mm 12 gauge Zero, Fam Fire	15 rifle (50m) 20 pistol (25m)	Yes	No	No	No	Yes	No	No	Yes
17814								No			Outside
4**	UK68777907	.22, .38, .45, .40, & 9mm CPQC, not Computerized	10	Yes	No	No	Pistol stands	Yes	No	No	Yes
17822nts				Yes		Yes		No			Outside
5	UK68637896	5.56 SRM, CQM, all pistol	30	Yes	Yes	No	No	Yes	No	No	Yes
17801				No	2-TS	Yes		No			Outside
5A	UK68727901	5.56 SRM, CQM, all pistol	20	No	Yes	No	No	Yes	No	No	Yes
17801				No	Covered Firing line	Yes		Firing Tables			No
6A	UK68527887 west	Offense/KD 5.56, pistol	10 KD	No	No	No	No	No	No	No	Yes
17814				No		Yes		No			At 6B
6B	UK68467881 east	Defense, KD 5.56, pistol	5	Yes	No	No	Yes	Yes	No	No	Yes
17814				Yes		Yes		No			Outside
7**	UK68207851	.22, .38, .45, .40 & 9mm, CPQC Computer Op	15	Yes	No	No	Pistol Stands	Yes	No	No	Yes
17822				Yes		Yes		Yes			Outside

*Building type abbreviations, RM-Range Maintenance, TS-Target Storage, GI-General Instruction, OB-Observation, AAR-After Action Review.

**Ranges 4 & 7 can accommodate MPFQC, units must request barricades from Range Maintenance

NOTE: All 7.62mm firing on Range Road ranges is currently considered a Non Standard Training Event.

RANGE FCC	GRID	TRAINING/ APPROVED AMMUNITION	FIRING POINTS	TOWER/ PA	BUILDING & TYPE*	LATRINE/ PORTA JOHN	WEAPONS RACK	BLEACHERS/ COVERED	MESS PAVILION	AMMO BREAKDOWN BUILDING	PHONE
8Q	UK6017842	5.56 Qual ARF -Auto Record Fire	16	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
17805				Yes	1-RM	N/A		Yes			
8Z	UK67827830	5.56 25m zero	32	Yes	Yes	No	Yes	Yes	No	No	Yes
17801				Yes	1-TS	Yes		Yes			
8A**	UK67817872	5.56, 7.62 ball & special, Known Distance	10 FPs on 6 firing lines 80, 175, 275, 350, 450 & 500m FLs	NA	No	No	Yes	Yes	No	No	No
17810	UK67867864			Yes		No					
20	UK67007889	5.56 & M203/M320 40mm TP-T Grenadier Gunnery	1 lane w/ 4 Firing points	Yes	No	No	No	No	No	No	No
17878	Urban Assault Course ST 3			No		Yes		No			
20	UK68007830	Blank- 50, 7.62, 5.56 & pyrotechnics others on req	5 structures /stations & underground Trainer	NA	Yes	No	No	Yes	No	No	Yes
17878nts	UAC ST 1, 2, 4 & 5			1-TS		Yes		Yes			Yes
21	UK67707803	N/A Mine Detection	13 lanes	NA	Yes	No	No	No	No	No	No
17952				1-TS		Yes		No			
9Q	UK67327807	5.56 Qual ARF -Auto Record Fire	16	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
17805				Yes	1-RM	Yes		Yes			
9Z	UK67137800	5.56 25m zero	21	Yes	Yes	No	Yes	Yes	No	No	Yes
17801				Yes	1-TS	Yes		Yes			
10Z	UK66927790	5.56 25m zero	32	Yes	Yes	No	Yes	Yes	No	No	Yes
17801				No	1-TS	Yes		No			Outside

*Building type abbreviations, RM-Range Maintenance, TS-Target Storage, GI-General Instruction, OB-Observation, AAR-After Action Review

** Range 8A is very limited use due to conflicts with range 8Q and other ranges

NOTE: All 7.62mm firing on Range Road ranges is currently considered a Non Standard Training Event.

RANGE FCC	GRID	TRAINING/ APPROVED AMMUNITION	FIRING POINTS	TOWER/ PA	BUILDING & TYPE*	LATRINE/ PORTA JOHN	WPNS RACK	BLEACHERS/ COVERED	MESS PAVILION	AMMO BREAKDOWN BUILDING	PHONE
11	UK66637782	5.56 Qual & FF MRF –Modified Record Fire	16	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
17806				Yes	1-RM	N/A		No			
12	UK66327771	5.56	12	No	No	No	No	No	No	No	No
17814nts				No		No		No			
12A	UK6447775	5.56 KD 75, 175, 275m Berms	21 FPs	N/A	No	No	Yes	Yes	No	No	Yes
17814nts				Yes		Yes		No			outside
13	UK65887765	5.56, all pistol 25m Zero	40	Yes	Yes	Yes	Yes	Yes	No	No	Yes
17801				Yes	1-TS	N/A		Yes			outside
13A	UK68727901	5.56, all pistol 25m Zero	40	Yes	Yes	No	Yes	Yes	No	No	Yes
17801				Yes	1-TS	Yes		Yes			Outside
14	UK65557746	5.56, all pistol 25m Zero	40	Yes	Yes	No	Yes	Yes	No	No	Yes
17801				Yes	1-TS	Yes		Yes			Outside
14A	UK65687751	5.56, all pistol 25m Zero	40	Yes	Yes	No	Yes	Yes	No	No	Yes
17801				Yes	1-TS	Yes		Yes			Outside
15	UK65327742	5.56, all pistol 25 & 10m Zero	40	Yes	No	No	Yes	Yes	No	No	Yes
17801				No	1-TS	Yes		No			outside
16	UK65167742	5.56, all pistol 25 & 10m Zero	40	Yes	No	No	Yes	Yes	No	No	Yes
17801				No	1-TS	Yes		No			outside
17	UK65037743	9, .45, .38, 22, 40 Shotgun MPFQC	5	No	Yes	No	No	No	No	No	Yes
17814nts					1-TS	Yes		Outside			

*Building type abbreviations, RM-Range Maintenance, TS-Target Storage, GI-General Instruction, OB-Observation, AAR-After Action Review

NOTE: All 7.62mm firing on Range Road ranges is currently considered a Non Standard Training Event.

RANGE FCC	GRID	TRAINING/ APPROVED AMMUNITION	FIRING POINTS	TOWER/ PA	BUILDING & TYPE*	LATRINE/ PORTA JOHN	WPNS RACK	BLEACHERS/ COVERED	MESS PAVILION	AMMO BREAKDOWN BUILDING	PHONE
23A**	UK60267820	Hand Grenade Fam/ Live Fire	5	Yes	Yes	No	No	Yes	No	No	Yes
17883				No	1-OB	No		No			Outside
17882	UK60267815	Hand Grenade Qual	1 lane	N/A	N/A	No	No	Yes	No	No	Yes
		Practice Grenade	7 Stations			No		No			Outside
23C**	UK59987783	Live AT4/SMAW	10	No	No	No	No	Yes	No	No	Yes
17842nts				No		No		No			Outside
23D**	UK59837775	M320/M203 40mm Fam- HE	4	No	No	No	No	Yes	No	No	Yes
17884				No		No		No			Outside
23E** FARP	UK60587857	Only re-arming Of rotary craft Using 23door	N/A	N/A	None	No	No	No	No	No	No
17814 ***				No		No					
23Door **	UK60267875 to UK60177819	7.62,20mmTP 30mm TP, 2.75 Inert Rocket	1	N/A	N/A	No	No	No	No	No	No
1781				No		No					
24B**	UK59267707	MK19 HE Fam	1	No	No	No	No	Yes	No	No	Yes
17814		Inert TOW, laser	1			No		No			Outside
30	UK62377930	Combined Arm Collective Trng Facility Blanks-CCMCK	N/A	N/A	Yes	Yes	No	Yes	Yes	No	30
17901				Yes	1-AAR 1-RM	Yes		No			17901

*Building type abbreviations, RM-Range Maintenance, TS-Target Storage, GI-General Instruction, OB-Observation, AAR-After Action Review

** All 23 series, 24& 27 ranges are limited use because they are downrange of the new 30 series ranges. Where possible, the capabilities of these ranges are being relocated to other areas.

***FCC-Facility Category Code indicates the type of Range as per the latest TC 25-8 training requirements/ design standards. FCC 17814 is the code for a “not to Standard” type of range. Another FCC number followed by “nts” indicates that range meets some of the training requirements of that type of range, but not all training requirements making it “not to Standard”. All installations have ranges or facilities that are NTS, yet they are still used for many types of training.

RANGE FCC	GRID	TRAINING/ APPROVED AMMUNITION	FIRING POINTS	TOWER/ PA	BUILDING & TYPE*	LATRINE/ PORTA JOHN	WPNS RACK	BLEACHERS/ COVERED	MESS PAVILION	AMMO BREAKDOWN BUILDING	RANGE FCC
31	UK61627720 Urban Assault Course ST 3	5.56 SRTA & M203/M320 40mm TP-T Grenadier Gunnery	1 lane w/ 4 Firing points	N/A	No	Yes	No	No	No	Yes	31
17878				No		N/A					17878
31	UK61577724 UAC ST 1, 2, 4 & 5	Blank- 50, 7.62, 5.56 & pyrotechnics, others on req	5 structures /stations & underground Trainer	No	No	Yes	No	No	No	Yes	31
17878				No							17878
32	UK61457715	Live Fire Shoot house pistol, 5.56 ball	N/A	N/A	Yes	Yes	Yes	Yes	No	Yes	32
17879				Yes	AAR, RM & Glass House	No		17879			
33	UK61267697	Live Fire Exercise Breach Facility C4 5lb Max NEW, Det Cord, shotgun	N/A 3 Stations	N/A	Yes	No	No	No	No	No	33
17880				N/A	1-TS	Yes		No			17880
34	UK60347659	Infantry Squad Battle Course 9mm, 5.56 4/1	N/A 5 Objective	N/A	Yes	Yes	Yes	Yes	Yes	Yes	34
17895				N/A	1-RM 1-GI	N/A		Yes			17895
35	UK58387561	Multipurpose Machine Gun 5.56 4/1 7.62 4/1	10-Qual 5-Zero	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
17833nts **				Yes	1-RM 1-GI	N/A		Yes			
36	UK56187448	40mm Machine Gun range 40mmTP-T 50 cal	4-Qual 5-zero	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes
17834				Yes	1-RM	N/A		Yes			

*Building type abbreviations, RM-Range Maintenance, TS-Target Storage, GI-General Instruction, OB-Observation, AAR-After Action Review

** Range 35 is shown as nts “not to standard”, because the design in TC 25-8 requires an MPMG meet 50 cal & 7.62mm sniper qualification requirements. We meet 50 cal requirements on Range 36 (40mm MG) and 7.62 sniper requirements on Range 37. Range 35 meets all Light MG (5.56 & 7.62) Qualification standards.

RANGE FCC	GRID	TRAINING/ APPROVED AMMUNITION	FIRING POINTS	TOWER/ PA	BUILDING # & TYPE*	LATRINE/ PORTA JOHN	WPNS RACK	BLEACHERS/ COVERED	MESS PAVILION	AMMO BREAKDOWN BUILDING	PHONE
37	UK52547544	Automated Sniper Field Fire-7.62 special -5.56 special ***	4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
17812nts **				Yes	1-RM	N/A		Yes			No
Demo B ****	UK61217896	Demolitions Trng TNT/C4, 45lb max NEW- No cutting charges permitted	1	No	Yes	No	No	No	No	No	No
17814				No	Bunker	Yes		No			
Demo D ****	UK57247594	Demolitions Trng TNT/C4, 100lb max NEW	1	No	Yes	No	No	No	No	No	No
17814				No	Bunker	Yes		No			
38 *****	UK61207992	Multipurpose Range 50 cal, 40mm TP-T Live Javelin	Weapon Dependant 1-3	No	Yes	No	No	Yes	No	No	No
17814				No	1-TS	Yes		No			
39	UK62287884	CIED Training Lane- all blanks, Pyrotechnics, HME Lab	N/A	N/A	Yes	No	No	No	No	No	No
17999 *****				No	2-RM	Yes		No			
FO Bunker *****	UK58887596	Claymore mine Live Fire-Demo 45lbs max NEW	N/A	No	Yes	No	No	No	No	No	No
17814				No	Bunker	Yes		No			

**A published design change has been approved for this range adding 4 moving infantry targets per lane, making this range NTS. But the firing requirement/tables requiring these additional targets has not been released.

*** Range 37 one firing point for 25mm and three targets

**** Ranges Demo B, & D are Light demolition ranges allowing limited demolition training, but none of the 3 meet the design/ training requirements as outlined in TC 25-8.

***** Range 38 is a limited capability ground or vehicle mounted, stationary or moving firing at stationary targets range. Any use requires approval of a training plan by Range Operations. Range does not meet any platform gunnery table standards for qualification.

***** CIED lane is using 17999 (Field Training Area) until a specific FCC is assigned. The lane includes a DIVIL (dismounted individual visual indicator lane) and various structures around the lane that can be incorporated at the commander's discretion. Size of the lane can also be expanded or contracted as per the commander.

***** FO Bunker has limited availability due to being downrange of other, heavily used ranges.

ACTIVE ARTILLERY AND MORTAR FIRING POINTS

Firing points are labeled alpha-numerically. The first letter and number indicate the training area in which the firing point is located. "Foxtrot" (F) firing points are located on the boundary of the impact area along McLean Road and Trail 7.

Firing PT	Weapon	Grid	Altitude (M)	# of Guns	Latrine
F-1-1	60mm, 81mm, 120mm MORTAR	UK5617075649	189	4	NO
F-1-2	60mm, 81mm, 120mm MORTAR	UK5603675768	190	4	NO
F-1-3	60mm, 81mm, 120mm MORTAR	UK5592375995	211	4	NO
F-1-8	60mm, 81mm, 120mm MORTAR	UK5583076135	207	4	NO
F-1-10	81mm, 120mm MORTAR	UK6055878319	225	4	NO
B-9-1	105mm, 155mm	UK6428880764	210	4	NO
B-9-3	105mm, 155mm	UK6412380853	225	4	NO
B-10-5	105mm, 155mm	UK6336080471	241	4	NO
B-11-3	105mm, 155mm	UK6310179953	220	4	NO
B-11-4	105mm, 155mm	UK6309079715	219	4	NO
B-12-3	105mm, 155mm	UK6238079790	235	6	NO
C-4-3	105mm, 155mm	UK6207979010	218	4	NO
C-4-7	105mm, 155mm	UK6166678815	202	4	NO
C-5-3	81mm, 120mm MORTAR	UK6050478712	236	4	NO
D-3-2	105mm, 155mm	UK5483974754	190	4	NO
D-3-6	105mm, 155mm	UK5419474412	177	4	NO
D-3-8	105mm, 155mm	UK5416474527	185	4	NO
D-3-9	105mm, 155mm	UK5479974903	195	4	NO
D-3-10	105mm, 155mm	UK5414975152	195	4	NO
D-3-11	105mm, 155mm	UK5308074631	196	3	NO
D-3-12	105mm, 155mm	UK5468475333	206	6	NO

HAZARDOUS TRAINING FACILITIES

Section I - Hazardous Training Facilities:

a. RANGE 20 URBAN ASSAULT COURSE (UAC)

LOCATION: UK6803778060 in Training Area A-17.

DESCRIPTION: The UAC site is a blank fire training facility which consists of a maneuver area portion of Training Area A-17, Underground Trainer (Station 1), five buildings (Station 2) designed for individual and squad level collective training and a Grenadier Range, (Station 3). Grenadier Range(Station 3), is a live fire 5.56 ball and M203/M320 40mm TP range. When Grenadier Range (Station 3), is "WET" the UAC shall be considered hazardous

training and will require an RNOIC and RSO certified for the weapon being fired. Station 3 will then comply with all hazardous training requirements of this regulation. Live rounds and blanks will always be separated by Range Road. Storage of live rounds may only be allowed on Station 3.

FACILITIES: Porta Johns must be requested. A parking area is available for military vehicles.

SPECIAL REQUIREMENTS: Equipment for the UAC site is available at the Range Issue Point. The following training ammunition is authorized for use at the UAC site:

<u>DODIC</u>	<u>DESCRIPTION</u>
1305-A080	5.56 Blank
1305-A075	5.56 Blank for SAW
1305-A111	7.62 Blank for M60/M240B
1330-G811	Body Practice Hand Grenades M69
1330-G878	Fuse for Practice Hand Grenades M69
1330-G940	Smoke Grenade (Green)
1330-G945	Smoke Grenade (Yellow)
1330-G955	Smoke Grenade (Violet)
1370-L600	Simulator, Booby Trap M119 Whistling
1300-G810	Body Practice Hand Grenade M30
1300-G870	Fuse for Practice Hand Grenade M30

MILES equipment is available at the TSC.

STATION 3 (M203/M320) must be specifically requested as a separate item. Authorized ammo is 5.56mm ball, SRTA, CCMCK, and M203/M320 TP.

Scheduling the UAC will not schedule the Collapse Structure Site. Collapse Structure Site must be scheduled separately from the UAC.

b. **DROP ZONES** See Chapter 10-4 (b)

KING DZ (UK6024578656)	Cargo Drops Only
MUSTANG DZ (UK6028277824)	Cargo Drops Only
WEST FIELD DZ (UK6355275109)	High Risk DZ

c. **GAS CHAMBERS**

LOCATION: Gas Chambers A and B are in Area 10 south of Range Road at UK6575677357. Gas Chamber C is located in Training Area B-9C at UK6393180517. Gas Chamber D is located in Training Area D-4 at UK5592074144. Gas Chamber E is located in Training Area A-16B at UK6860078580.

DESCRIPTION: The five gas chambers are suitable for Phase I, CS Chamber Exercise and Phase II, Camphor Chamber Exercise.

FACILITIES: Porta-Johns must be requested.

SPECIAL REQUIREMENTS: Medics must have protective mask.

Chamber Preparation: CS capsules and an improvised generator are used to set up a concentration of agent in the CS chamber. Normally, four (4) capsules will establish an initial concentration; one (1) capsule placed on the improvised generator after 10 soldiers pass through the chamber will maintain the concentration. Rule of Thumb: One (1) capsule for every 10 soldiers. **CS Grenades will not be used in GAS CHAMBERS - ONLY AUTHORIZED AGENT IS CS CAPSULES.**

d. **FO BUNKER**

LOCATION: UK5884776854 on McLean Road between Weise Road and Range 24C.

DESCRIPTION: The FO Bunker permits unit to observe and call in indirect fires at danger-close range. Also, the facility may be used to fire claymore mines and/or demolitions.

FACILITIES: One bunker with observation windows.

SPECIAL REQUIREMENTS: Two road guards are required when firing claymore mines or demolitions.

e. **COMBINED ARMS COLLECTIVE TRAINING FACILITY (CACTF) RG 30**

LOCATION: UK6237079300

DESCRIPTION: This facility currently contains twelve (12) buildings arranged as a small village. It allows for company maneuver/assault type scenarios. It is considered a HAZARDOUS training facility because it allows for pyrotechnic use. Some of the buildings are set up for rappel type operations and an underground trainer is also available.

When pyrotechnics are in use the unit must have a RNOIC and RSO present.

FACILITIES: This range provides an AAR facility. The buildings are all set up for audio and visual recording, with operators to run the automation. The AAR compound is separate from the village and it provides latrine facilities as well as a mess area.

SPECIAL REQUIREMENTS: When conducting Rappel Operations a Commander's Rappel Operations Certification Letter (CROCL) must be on file with Range Operations. The Training site OIC must be annotated on the CROCL to conduct rappel operations during training exercise. Units may conduct ground or wall side training without a certified Rappel Master. The commander will identify an E7 or above with extensive rappelling and risk management training to serve as OIC on the units CROCL.

f. **UAC RG 31**

LOCATION: UK6157077240

DESCRIPTION: This range is designed to meet the standards of TC 25-8. It has 5 stations: (1) Individual & Team Trainer, (2) Squad & Platoon Trainer, (3) Grenadier Gunnery Range, (4) Urban Offense/Defense Building, (5)

Underground Trainer. Stations 1, 2 & 4 have 26 plug & play Human Urban Targets (HUT) 2. Supports Dry & MILES Fire only. HUTs are manually set for each use and manually scored.

FACILITIES: Latrine, ammo breakdown, and operations & storage (shared with Shoot house)

SPECIAL REQUIREMENTS: When conducting Rappel Operations a Commander's Rappel Operations Certification Letter (CROCL) must be on file with Range Operations. The Training site OIC must be annotated on the CROCL to conduct rappel operations during training exercise. Units may conduct ground or wall side training without a certified Rappel Master. The commander will identify an E7 or above with extensive rappelling and risk management training to serve as OIC on the units CROCL. The following training ammunition is authorized for use at the UAC site:

<u>DODIC</u>	<u>DESCRIPTION</u>
1305-A080	5.56 Blank
1305-A075	5.56 Blank for SAW
1305-A111	7.62 Blank for M60/M240B
1330-G811	Body Practice Hand Grenades M69
1330-G878	Fuse for Practice Hand Grenades M69
1330-G940	Smoke Grenade (Green)
1330-G945	Smoke Grenade (Yellow)
1330-G955	Smoke Grenade (Violet)
1370-L600	Simulator, Booby Trap M119 Whistling
1300-G810	Body Practice Hand Grenade M30
1300-G870	Fuse for Practice Hand Grenade M30

Authorized ammo for Station 3 is 5.56mm SRTA, CCMCK and M203/M320 TP.

MILES equipment is available at the TSC.

g. **LIVE FIRE SHOOT HOUSE RG 32**

LOCATION: UK6145077150

DESCRIPTION: This facility is a fully enclosed structure that allows for live fire, room-to-room, and maneuver. Automated HUTs can be positioned based on commander's guidance but because of safety concerns final approval will come from contractors. Cameras are positioned to record the action. This allows for very specific AARs in a separate facility.

FACILITIES: The range has a separate AAR facility, ammo breakdown area, and latrines

SPECIAL REQUIREMENTS: Units must have specially certified trainers in order to use this facility. Range Operations will conduct periodic training in order to certify these individuals. Units need to contact Range Operations in order to determine when the training is scheduled. Ammo up to 5.56mm ball can be used. Additional special requirements are contained in the Range 32 SOP. Copies may be obtained by contacting Range Operations. Refer to Appendix Q for example of certification letter.

h. **LIVE FIRE EXERCISE BREACH FACILITY RG 33**

LOCATION: UK6098176889

DESCRIPTION: This facility meets the TC 25-8 standard. Its purpose is to allow soldiers to train on the technical aspects of breaching techniques. The primary features include a door breaching structure, a window breaching structure and a wall breaching construction area. It may also be used to train TTPs and explosive techniques not trained on any other type of facility.

FACILITIES: There are no additional facilities available at this time.

SPECIAL REQUIREMENTS: Only C4, Det Cord, or sheet explosives may be used. Also the 12 gauge Breaching Round, DODIC AA54 M1020 may be used. Maximum charge per type of breach is listed in the specific Range SOP.

i. **IMPROVISED EXPLOSIVE DEVICE-DEFEAT (IED-D) HOME STATION TRAINING LANE (HSTL)**

LOCATION: RANGE 39 (TA-C03)

DESCRIPTION: The IED-D HSTL was constructed to conduct Decisive Action IED operations up to the Company Level and provides a training area where units can learn their individual, leader and collective C-IED tasks. It consists of approximate 2.5 miles of improved road networks, two traffic circles, 3 village complexes, a Homemade Explosives Lab (HME), Landing Zone (LZ), Gas Station and overpass. The IED-D HSTL will accommodate Force on Force (FOF) and Force on Target (FOT) operations. It may also be utilized by Law Enforcement, Civil Disturbance, Emergency Response, and other related training elements. This lane is staffed by members of the Counter IED Integration Cell (CI2C) whose purpose is to synchronize, coordinate, and integrate material & non-material C-IED initiatives and enablers to prepare units for Unified Land Operations. After scheduling Range 39, units have the ability to coordinate with the CI2C Team 717-861-6348 for assistance with training needs and requirements. Units should contact the CI2C team no later than 14 days prior to training to ensure a finalized training plan is in place. In addition to standard mounted/dismounted operations training, a unit may request to use the facility for Non Standard Live Fire Convoy Operations using Short Range Training Ammunition (SRTA).

FACILITIES: 2.5 miles of road network to conduct Mounted/Dismounted C-IED Operations, HME Lab, LZ, Dismounted Infantry Visual Indicator Lane (DIVIL), and an After Action Review/Planning Area.

(1) Homemade Explosives (HME) Lab:

(a) The IED-D HSTL (Range 39) is equipped with a HME lab that replicates a typical HME Facility. The HME lab is configured to walk soldiers through a hands-on training environment meant to represent the HME production process (Mixing commercial compounds, the cooking, cooling, drying, and packaging procedures). An immersive HME training area is located through a crawl space behind a false wall. This HME lab will be used to train soldiers to identify chemicals and precursors linked with HME production and allow them to demonstrate the ability to safely recognize materials often associated with HME.

(b) This structure is equipped with a booby trap pressure plate device (X-OHW IED Simulator) located at the entrance of the HME Lab that will safely detonate upon entry into the HME lab if proper search techniques are not

conducted. Fort Indiantown Gap CI2C personnel will facilitate/conduct all scenario driven training exercises, walk-through and instruction performed at this facility. Hearing protection is required if utilizing the equipped booby trap device for training.

(c) Although this structure is located on the IED-D Home Station Training Lane (Range 39, this facility is off-limits unless coordinated at least 14 days in advance of training with Range Operations or the CI2C team.

(d) Units can request the use of the HME Lab facility by coordinating through Web Based RFMSS and the CI2C team at 717-861-6348

(2) DIVIL/IED/HME Display: Located inside TA-C04 Combat Out-Post and can be requested through Web Based RFMSS and the CI2C 717-861-6348.

(a) FTIG's IED/HME Display/DIVIL increases Soldier awareness in the identification and recognition of the IED/HME threat. Soldiers are exposed to a variety of IED's and the indicators that might produce a warning sign that an IED is in the area. In addition, there is hands-on training available to allow soldiers to see what material solutions the Army is resourcing to combat the threat of the IED and detect precursors of HME. Static Displays will be updated by CI2C personnel as trends and TTPs change within specific Operational Environments..

(b) Information/Training Aids portrayed within the DIVIL include but are not limited to, IED Awareness and Enemy/Friendly TTPs, IED components, IED manufacturing TTP's, Victim Operated IED's (VOIED), Radio Controlled IED's (RCIED), Command Wired IED's (CWIED), Vehicle/Person Borne IED's (VBIED/PBIED), and Home Made Explosives (HME).

GENERAL INSTRUCTIONS: CI2C team will facilitate all technical aspects of running the IED-D Lane and help facilitate AAR's. They are mainly facilitators/trainers; units are responsible for developing training objectives/training intent prior to arrival to Fort Indiantown Gap as well as conducting cleanup of all facilities after use.

(1) The CI2C Team has authority to call a "Cease Fire" or halt training due to negligence of the using unit/organization at any time.

(2) Villages will not be used as sleeping, holding, staging or storage area.

(3) Non-exercise related pedestrian and civilian vehicle traffic on Range 39 is not authorized during training. Only Range Operations vehicles and CI2C Support vehicles will be authorized to drive downrange during training engagements.

(4) Unit must be aware that use of RG 39 does not procure blocking of McLean Road. McLean Road is still used for most traffic on FTIG. Brief Soldiers on traffic awareness of McLean Road.

(5) No alteration to Range 39 training configuration is allowed without prior approval of Range Operations or the CI2C team. No additional holes or shelters may be built by a using unit unless approved by Range Operations or CI2C Team. No installed IED-D equipment shall be removed without prior approval of the CI2C Team.

(6) There are no Latrines on-site; Porta-johns should be requested prior to occupying range if these facilities are needed.

SPECIAL REQUIREMENTS: IED Simulators used throughout the lane will consist of both Program of Record (POR) and Non-Program of Record (Non-POR) devices. All POR devices can be drawn by the training unit at the Training Support Center. The Improvised Explosive Device Effects Simulator (IEDES), which consist of both

Non-Pyro and Pyro devices. The Pyro device utilizes M30 (DODIC LA06) Simulator Main Gun Tank and M31 (DODIC LA07) Simulator Direct Fire/Indirect Fire w/stars. These simulators must be forecast and requested by unit through normal ammunition supply procedures. Non-POR IED simulators (XM-10, X-OHW) can also be employed during C-IED training events, these devices cannot be drawn from the Training Support Center and require CI2C support for utilization, contact CI2C 717-861-6348) to request these devices.

j. **CONEX VILLAGES**

LOCATION: TA-B09B, TA B09C and RG39

DESCRIPTION: Each village consists of single story and multi story structures and walled areas. These areas are authorized for CCMCK training without the need for submitting a non-standard request. The use of any other civilian paintball or like activity will need a non-standard training request submitted and approved prior to training.

FACILITIES: Porta-Johns must be requested.

SPECIAL REQUIREMENTS: Appropriate PPE required for use.

Section II - Non-Hazardous Training Facilities

a. OBSERVATION POINTS (OP)

LOCATION: OP 09 at UK5890276545 in vicinity of Weise Rd. and McLean Rd.

OP 11 at UK5933776262 in Training Area D-7B.

OP 13 at UK5840575630 on RG 35.

b. LEADERSHIP REACTION COURSE (LRC)

LOCATION: UK69457968

DESCRIPTION: The LRC is a training facility, which is divided into 16 tasks that are designed to show soldiers their individual and collective leadership potential.

FACILITIES: Parking lot for POVs. Porta-Johns must be requested

SPECIAL EQUIPMENT: Equipment required for the various tasks is stored at the facility. It will be issued at time of draw for the facility.

c. ROPE BRIDGE

LOCATION: UK68607836 adjacent to Shuey Lake.

DESCRIPTION: The rope bridge site is located along Shuey Lake. It has the rope anchoring fixtures located on both sides of water.

FACILITIES: Porta-Johns must be requested. Parking area for POVs is on the east side of Shuey Lake. Bleachers are available for your use at the rappel tower.

SPECIAL REQUIREMENTS:

Rope Bridge: Unit must provide a medic and a certified Life Guard. The rope will be provided by using unit. Unit must provide life vests for their personnel. If unit requires a boat it may be obtained by contacting the MWR, phone 717-861-2860.

d. OBSTACLE COURSE

LOCATION: UK68607863

DESCRIPTION: The obstacle course is a training facility which has 11 obstacles built to accommodate specific skills for soldiers to develop.

FACILITIES: Porta-Johns must be requested. Parking area for POVs is on the east side of Shuey Lake. Bleachers are available for your use.

SPECIAL REQUIREMENTS: None

e. RAPPEL TOWER

LOCATION: UK6931579867

DESCRIPTION: The Rappel Tower consists of a 25 foot and 50 foot rappel wall, a fast roping platform, and a 50 foot rock climbing wall. The 50 foot rappel wall has removable panels to rappel into or out of windows. The tower is used to train and test soldiers on the skills necessary to conduct rappelling operations from static locations.

FACILITIES: Parking lot for POVs. Porta-Johns must be requested

SPECIAL REQUIREMENTS: When conducting Rappel Operations a Commander's Rappel Operations Certification Letter (CROCL) (Appendix Y) must be on file with Range Operations. The Training site OIC must be

annotated on the CROCL to conduct rappel operations during training exercise. Units may conduct ground or wall side training without a certified Rappel Master. The commander will identify an E7 or above with extensive rappelling and risk management training to serve as OIC on the units CROCL.”

f. **ENGINEER DIG SITE**

LOCATION: UK6335380447

DESCRIPTION: The engineer dig site is the only pre-approved training area for digging. Every attempt should be made to return training area back to its original state after training is complete.

FACILITIES: None

SPECIAL REQUIREMENTS: None

APPENDIX B



FORT INDIANTOWN GAP
NATIONAL GUARD TRAINING CENTER
1 GARRISON ROAD
ANNVILLE, PENNSYLVANIA 17003-5002

FTIG-TC-POTS

14 FEB 2014

MEMORANDUM FOR Commander, Training Site, Ft Indiantown Gap, Attn: TS-PT-RO, Anville, PA 17003-5002

SUBJECT: Command Safety Certification

1. Reference FTIG Reg 350-2, Chapter, 1 Para 1-2b and DA PAM 385-63 Para 1-5.
2. I certify the following individuals are competent and properly instructed to perform duties as RNOIC or RSO as stated. They are knowledgeable of the weapon systems for which they are listed.. This certification will remain in effect for one year from the date of this memorandum.

<u>TOE/TDA POSN</u>	<u>RANK</u>	<u>NAME</u>	<u>LAST 4</u>	<u>CERTIFIED FOR</u>
CO CMDR	CPT	PATTON	1234	M16, M4, M9, M60, M240B, M249, M203, M2, MK19, PYRO, Simmunitions
EXEC OFF	1LT	GUNNER	5678	M16, M4, M9, M60, M240B, M249, M203, M2, MK19, PYRO, Simmunitions
CO 1SG	1SG	KRAMER	2345	M16, M4, M9, M60, M240B, M249, M2, MK19, PYRO

3. POC for this action is SFC Luke P. Short 717-123-4567.

JOHN Q. MARTIN
COL, EN, PAARNG
Commanding

THIS IS EXAMPLE OF COMMAND SAFETY CERTIFICATION

APPENDIX B, FTIG REG 350-2

NOTE: CERTIFICATION IS A COMMAND FUNCTION AND WILL BEAR THE COMMANDER'S SIGNATURE. RANGE OPERATIONS **WILL NOT ACCEPT** A CERTIFICATION THAT DOES NOT BEAR THE COMMANDER'S SIGNATURE OR DOES NOT STATE "COMMANDING" IN THE SIGNATURE BLOCK. CERTIFICATION MUST BE SIGNED BY A BATTALION COMMANDER, (O-5) OR ABOVE. RANGE OPERATIONS WILL ACCEPT A MAJOR (O-4) WITH AN ASSUMPTION OF COMMAND LETTER. CERTIFICATION IS REQUIRED FOR ALL HAZARDOUS TRAINING AND WEAPON SYSTEMS, REGARDLESS OF TYPE OF AMMO USED. RECOMMENDED EFFECTIVE TIME FOR A PROPERLY CONDUCTED TRAINING PROGRAM IS ONE YEAR MINUS ONE DAY. A CURRENT COPY OF THE CERTIFICATION MUST BE ON FILE WITH RANGE OPERATIONS PRIOR TO CONDUCT OF HAZARDOUS TRAINING. WE SUGGEST UNITS LIST PERSONNEL ALPHABETICALLY, THIS ALLOWS RANGE OPERATIONS TO FIND THE INDIVIDUAL FASTER AND QUICKENS THE RESPONSE TIME WHEN REQUESTING A "WET" TIME.

APPENDIX C

LOG NUMBER: _____
 DATE RECEIVED: _____

FORT INDIANTOWN NATIONAL GUARD TRAINING CENTER
CONSOLIDATED REQUEST FOR TRAINING AND LOGISTICAL SUPPORT

SHADED AND/OR ** CELLS MUST BE COMPLETED FOR YOUR REQUEST TO BE PROCESSED. FTIG FORM 214 MUST BE SUBMITTED NLT 14 WORKING DAYS PRIOR TO REQUESTED TRAINING DATES. REQUESTS RECEIVED AFTER THIS SUSPENSE WILL BE RETURNED WITHOUT ACTION. A SEPARATE FTIG FORM 214 WILL BE SUBMITTED FOR EACH TRAINING PERIOD. THIS FORM IS NOT TO BE USED BY MILITARY ORGANIZATIONS.

ANY AGENCY, FEDERAL, STATE, MUNICIPAL, OR CIVIC ORGANIZATION MUST BE PREPARED TO PAY IN ADVANCE FOR ALL FACILITIES, SERVICES AND SUPPORT PRIOR TO UTILIZATION AND MUST PROVIDE A CERTIFICATE OF INSURANCE IN THE AMOUNT OF \$1,000,000.00 FOR LIABILITY COVERAGE OF ITS MEMBERS.

**PRIMARY TRAINING DATES:	MAIN BODY ARRIVAL:	MAIN BODY DEPARTURE:
SUBMITTED BY (ORGANIZATION'S NAME):		*"FOR PROFIT" ORGANIZATION (YES or NO):
**MAILING ADDRESS:		
TO:	FORT INDIANTOWN GAP TRAINING CENTER PENNSYLVANIA NATIONAL GUARD BUILDING 11-9, ATTN: FTIG-TC-POTS ANNVILLE, PA 17003-5002	VOICE: COMMERCIAL: 717-861-2533 / 2692 DSN: 491-2533 / 2692 FAX: COMMERCIAL: 717-861-2832 DSN: 491-2832

SECTION I ORGANIZATION CONTACT INFORMATION:

**ORGANIZATION PRIMARY POINT OF CONTACT:	**PHONE (COMM/DSN):	**FAX (if applicable):
ORGANIZATION ALTERNATE POINT OF CONTACT:	PHONE (COMM/DSN):	POINT OF CONTACT EMAIL:
ADVANCE PARTY ARRIVAL DATE (INCLUDE ESTIMATED TIME):	NUMBER OF PERSONNEL ON ADVANCE PARTY:	

NUMBER OF PERSONNEL THAT WILL BE AT FORT INDIANTOWN GAP DURING THIS PERIOD	
	CIVILIANS
MALE	
FEMALE	
TOTAL	

INDICATE PAGES SUBMITTED (1 & 2 ARE REQUIRED) 1 2 3 4 5 6 7

SUBMITTER'S SIGNATURE/DATE _____

SECTION II LOGISTIC SUPPORT REQUIREMENTS: FTIG-TC-LOG

a. **GENERAL.** It is the Organization’s responsibility to ensure that appropriate coordination and supporting documents are properly prepared and either attached to this form or previously submitted. Samples can be obtained by the Fort Indiantown Gap Training Center Warehouse at 717-861-2276.

FORM	SUBMIT TO	COPIES REQUIRED
DA FORM 1687 (SIGNATURE CARD)	STORAGE WAREHOUSE BLDG 11-91	1

b. **PORTA JOHN REQUIREMENTS:** Porta Johns will be directly coordinated with Fort Indiantown Gap Training Center Warehouse, Building 11-91. Organizations are responsible to contact the Warehouse at least 15 working days prior to training and coordinate a time to meet the vendor for placement of porta johns. Warehouse can be reached at 717-861-2276, Fax 717-861-2018.

c. **TROOP USE LINEN REQUIREMENTS:** Organizations will be charged for Linen use and are responsible to coordinate directly with the Fort Indiantown Gap Training Center Warehouse. Warehouse can be reached at 717-861-2276, Fax 717-861-2018.

*BLANKETS	SHEETS	PILLOWS	PILLOW CASES
QTY	QTY	QTY	QTY
*1 EA SUMMER 2 EA WINTER			

d. **DINING FACILITY EQUIPMENT REQUIRED:** NO YES (Attach itemized list)

e. **REFRIDGERATE TRAILER:** NO YES (Organizations will be charged a fee for refrigerate trailer(s) and are responsible to contact the Fort Indiantown Gap Training Center Warehouse no later than 15 working days prior to requested date(s). Questions can be directed to the Fort Indiantown Gap Training Center Warehouse at 717-861-2276.

f. **EXPENDABLE ITEMS (i.e. Cleaning Supplies/Equipment, Paper Products, etc):** NO YES (Organizations will be charged a fee for cleaning supplies and are responsible to contact the Fort Indiantown Gap Training Center Warehouse no later than 15 working days prior to requested date(s). Organizations will be charged a fee for missing and/or broken equipment. Questions can be directed to the Fort Indiantown Gap Training Center Warehouse at 717-861-2276.

g. **PAYMENT FOR WAREHOUSE SUPPORT:** All payments for Fort Indiantown Gap Training Center Warehouse support can be made in the form of check or money order payable to “USPFO for PA”. Check or money orders will be paid directly to the Fort Indiantown Gap Training Center Warehouse; Building 11-91. Questions can be directed to the Fort Indiantown Gap Training Center Warehouse at 717-861-2276.

h. **MEAL SUPPORT: (MUST CHECK APPROPRIATE BLOCK)**

(1) Civilian Organizations are responsible to contact and coordinate with the Fort Indiantown Gap Community Club to obtain meal support and payment arrangements. Community Club requires an advance notice of three weeks for coordination of meal support. Questions can be directed to the Community Club at 717-861-2450, fax 717-861-2024. The Community Club is located in Building 9-65.

(2) Civilian Organizations will provide own meal support without support from Fort Indiantown Gap.

i. **RECREATION SUPPORT: (MUST CHECK APPROPRIATE BLOCKS)**

- (1) Request use of Fort Indiantown Gap Post Exchange (PX). Organizations are responsible to provide a by-name roster with all personnel that are requesting to utilize the facility to the Post Exchange Store Manager. Questions can be directed to the Post Exchange Store Manager at 717-861-2058; building 9-120.
- (2) Request use of Blue Mountain Sport Arena: Organizations utilizing the Blue Mountain Sports Arena are responsible to provide a by-name roster with all personnel that are requesting to utilize the facility to the Manager of the Blue Mountain Sports Arena prior to using the facility. There is a cost of one dollar per person per day to utilize the Blue Mountain Sports Arena. No one under the age of sixteen is permitted to utilize the weight room and no one under the age of ten is permitted to use the racquetball court. Questions can be directed to the Blue Mountain Sport Arena Manager at 717-861-2711; building 4-117.
- (3) Request use of Fort Indiantown Gap Community Pool: Organizations utilizing the Fort Indiantown Gap Community Pool are responsible to provide a roster of all personnel to the Manager of the Fort Indiantown Gap Pool prior to using the facility. Participants must be under proper adult supervision at all times. There is a cost of five dollars per person per day to utilize the Fort Indiantown Gap Community Pool and an additional cost of fifty dollars per day for lifeguard fees payable to the "FTIG Pool". Questions can be directed to the Blue Mountain Sport Arena Manager at 717-861-2711; building 4-117.
- (4) Request use of Picnic Areas: Usage of picnic areas and grill can be obtained through the Blue Mountain Sports Arena. Costs vary with usage of equipment or facility. Unit is responsible to coordinate directly with the Blue Mountain Sport Arena Manager at 717-861-2711; building 4-117.
- (5) Installation Tours: Fort Indiantown Gap offers tours on a very limited basis due to mission constraints. Tour requests are accepted for 8 or more, and the group must provide their own transportation. To schedule a tour, contact 717-861-2464.
- (6) Military Museum: The Pennsylvania National Guard Military Museum is located at building T-8-57 and is open Monday **and** Friday from 10:00am-4:30pm. Private tours for Scouts, Veterans and Senior Citizen Groups, Clubs and Organizations are available. To schedule an appointment to visit the museum call 717-861-2402 during museum hours and 717-861-9415 for inquired at other times. It is the Organizations responsibility to coordinate directly with the Military Museum for private tours.
- (7) Eastern ARNG Aviation Training Site (EAATS) Facility & Simulation Device Tours: Every effort will be given to resource and accommodate the requested tour based on operational tempo and EAATS usage. A tour shall be kept to a maximum of 10 personnel and last no longer than 2 hours. EAATS request a chaperon to visitor ratio of 1:5 be provided for groups with children under the age of 18. All tours will be conducted on the first and third Tuesday of the month and correspond with normal duty hours (0800-1700, except holidays). Approvals for tour requests outside of the normally scheduled times will be by exception only.
- (8) Static Displays: Fort Indiantown Gap is open to the public and there are several static displays that can be viewed at anytime. Displays include: 95th Infantry Division Monument, 28th Infantry Division Monument, 3rd Armored Division Monument, Battle of the Bulge Monument, 2nd Brigade Combat Team Fallen Warrior Memorial, 40 & 8 Boxcar, Nike Missile, M60A3 Tank, and several different types of aircraft. All static displays are centrally located along Fisher Avenue in front of Department of Military & Veterans Affairs and within walking distance of each other.

NOTE: Questions regarding Recreation Support can be directed to Range Operations at 717-861-2204.

SECTION III BILLETING/TROOP HOUSING REQUIREMENTS: FTIG-TC-LOG

a. TROOP USE BUILDING REQUIREMENTS:

TYPE BUILDING	BASIS OF ISSUE	QUANTITY	REMARKS	(FOR TS-LOG-B USE ONLY) BUILDING(S) ISSUED
BN/BDE/DIV HQ	AS REQUIRED			
ORDERLY ROOM	ONE PER ORGANIZATION			
MALE BARRACKS	ONE PER 60 INDIVIDUALS			
FEMALE BARRACKS	DETERMINED BY THE BILLETING OFFICE			
DINING FACILITY	ONE PER 225 INDIVIDUALS			
SUPPLY	ONE PER ORGANIZATION			
CLASSROOM	AS REQUIRED		NUMBER OF INDIVIDUALS:	

b. HOUSING SUPPORT REQUIREMENTS:

COTTAGES (LIMITED AVAILABILITY)		(FOR FTIG-TC-LOG USE ONLY) COTTAGE(S) ISSUED
NAME		
POSITION		
DATE(S) REQUIRED		

c. INDIVIDUAL ROOM REQUIREMENTS (Please specify how many male/female rooms you will need below):

MALE	FEMALE

PAYMENT FOR BILLETING SUPPORT: Organizations are responsible to report to the Billeting Office, Building 11-7, prior to check-out to determine a final cost. If the organization does not report to the Billeting Office by check-out, they will be charged according to their estimate amount. Invoice payment is due within 14 days of check-out date. Checks are payable to "FTIG Billeting Fund". Visa or MasterCard are acceptable for payment.

d. ADDITIONAL LOGISTICAL REQUIREMENTS:

SECTION IV MANDATORY BRIEFINGS & SAFETY REQUIREMENTS:

- a. Organizations are responsible to complete a Non Department of Defense (DOD) briefing prior to training. Personnel attending the Non-DOD briefing must be the appointed Safety Representative for their organization. A letter identifying the personnel as the safety individual(s) must be submitted when attending the Non-DOD brief. Non DOD briefings are held every Tuesday at 9:00am and every Friday at 2:30pm at the State Safety Office in building 11-9. Organizations will not be permitted to utilize training resource until their Non-DOD brief is completed. Questions can be directed to Command Sergeant Major Dell Christine at 717-861-2881; email dell.l.christine.mil@mail.mil or Sergeant Charles Garcia at 717-861-8813; email charles.a.garcia.mil@mail.mil from the State Safety Office.
- b. Organizations conducting training Monday through Friday must attend a daily coordination briefing. The daily coordination briefing is held daily at 7:30 am, building 11-9 conference room. Also, organizations conducting training Saturday through Sunday must attend a weekend coordination briefing. The weekend coordination briefing is held Friday at 1:30 pm, building 11-9 conference room. Failure to send a decision-making representative to these briefings may result in cancellation of all training at Fort Indiantown Gap during that specific timeframe.
- c. All medical emergencies on ranges and training areas will immediately be reported to Range Operations with the following information: Name, Type Injury, Gender, and if IV is initiated. Range Operations in turn will dispatch appropriate emergency response service.
- d. Emergency Services Notification. In the event of personnel sustaining serious injury (life, limb, or sight threatening) as determined by the organization’s medic, while in the cantonment area, emergency medical ambulance service is available by dialing 911 from a garrison/post phone only.
- e. Individuals utilizing resources at Fort Indiantown Gap must complete a Release and Hold Harmless Agreement. A parent’s/guardian’s signature is required for individuals under the age of eighteen. Release and Hold Harmless Agreement will be sent to the organization’s primary point of contact along with the resource confirmation. Completed forms are to be returned to Range Operations, building 11-9 prior to utilizing facilities at Fort Indiantown Gap.

SECTION V INFORMATION MANAGEMENT REQUIREMENTS:

- a. **RADIO FREQUENCIES:** Organizations conducting training are required to have radio communication with Range Operations in accordance with Fort Indiantown Gap Regulation 350-2. Fort Indiantown Gap Range Operations can provide 800 megahertz radios on a first come, first serve basis. Radios are available to be hand receipted at the front counter of Range Operations, located in Building 11-9. Issued radios are not to be used for organizations’ internal communication. Organizations will be monetarily charged for destruction or loss of a radio.

SECTION VI TRAINING REQUIREMENTS: FTIG-TC-POTS

a. TRAINING AREAS.

TRAINING AREA	** TRAINING EVENT	** START DATE/TIME	** END DATE/TIME	DAILY OR CONTINUOUS (YES/NO)	# OF PERSONNEL

b. TRAINING FACILITY: (LRC, GAS CHAMBER, OP, MAC SITE, OBSTACLE COURSE, ETC.)

TRAINING AREA	** TRAINING EVENT	** START DATE/TIME	** END DATE/TIME	DAILY OR CONTINUOUS (YES/NO)	# OF PERSONNEL

c. RANGES:

RANGE	** TRAINING EVENT	** START DATE/TIME	** END DATE/TIME	WEAPON	** TYPE AMMO	DAILY OR CONTINUOUS (YES/NO)	# OF PERSONNEL

d. TRAINING SIMULATORS: (EST, MCCTT, ODS TRAINER, VCOTT, ETC.)

FACILITY	**TRAINING EVENT	**START DATE/TIME	**END DATE/TIME	DAILY OR CONTINUOUS (YES/NO)	NO. OF PERSONNEL

*Any unit using the EST 2000, ODS TRAINER or the VCOTT simulators **MUST** contact Range Simulations at 717-861-9775 no later than two weeks PRIOR to using it, and provide a written training outline so that our simulator operators clearly understand and can comply with your training intent.

FORT INDIANTOWN GAP (FTIG) REGULATION 350-2: Must have and be knowledgeable of FTIG Regulation 350-2, Policy, Procedures and Standards for Training at Fort Indiantown Gap. Copies can be obtained via email by contacting Range Operations at 717-861-2153.

LIVE FIRE TRAINING: Organizations conducting live fire training of any type, they must have the appropriate manuals that correspond to that specific weapon system and type training. Questions can be directed to Range Operations at 717-861-2153.

RANGE OFFICER’S IN CHARGE (OIC’s) AND RANGE SAFETY OFFICER’S (RSO’s): All Range Officer’s In Charge (OICs) and Range Safety Officer’s (RSOs) must have a valid at Fort Indiantown Gap Range Safety Card, obtained through attending the Range Operations Safety Briefing given every Wednesday at 1:00 pm, Friday at 3:30 pm and Saturday at 7:00 am, in building 5-72.

COMMANDER’S SAFETY CERTIFICATION: Organizations must have a Commander’s Safety Certification (CSC) signed by their Second Line Supervisor or higher, if doing any type of hazardous training in accordance with FTIG Regulation 350-2, Chapter 1.

MEDICAL PERSONNEL: Organizations must have medical personnel and appropriate support equipment for all training in accordance with FTIG Regulation 350-2, Chapter 2.

RANGE MAINTENANCE PERIODS: The last two full weeks in April and the last two weeks in September, excluding weekends, are set aside as Range Maintenance periods. This includes all ranges and training areas, Monday through Friday. No training facilities will be available during Range Maintenance periods. This does not include Training Simulators.

PAYMENT FOR TRAINING SUPPORT: There is a charge for use of Ranges, Training Areas, Training Facilities and Training Simulators. All payments are due no later than two weeks after the organization departs Fort Indiantown Gap. Payment can be made in the form of a check or money order payable to “U.S. Treasury”. Check or money order will be paid directly to Fort Indiantown Gap Training Center, Attention Range Scheduling; Building 11-9. Questions can be directed Range Scheduling, located in building 11-9, at 717-861-2204.

**FORT INDIANTOWN GAP TRAINING CENTER
REQUEST FOR CHANGE/CANCELLATION OF
TRAINING AND/OR LOGISTICAL SUPPORT**

FOR POTS USE ONLY LOG NUMBER: _____ DATE RECEIVED: _____
--

UNIT: _____ PRIMARY TRAINING DATES: _____

THIS IS A REQUEST FOR CHANGE, ADDITION OR CANCELLATION OF THE FOLLOWING:

RANGE TRAINING AREA/SIMULATION LOGISTIC BILLETING STRENGTH

1. RANGE(S) / FIRING POINT(S).

RANGE	ACTION (CHANGE, ADD OR CANCEL)	TRAINING EVENT	DATE	SPECIFIC START TIME	SPECIFIC END TIME	CONTINUOUS TRAINING (YES or NO)	NUMBER OF PERSONNEL	WEAPON & AMMO	POTS ACTION

2. TRAINING AREA(S) / SIMULATION(S).

TA/SIM's	ACTION (CHANGE, ADD OR CANCEL)	TRAINING EVENT	DATE	SPECIFIC START TIME	SPECIFIC END TIME	CONTINUOUS TRAINING (YES or NO)	NUMBER OF PERSONNEL	POTS ACTION

NOTE: THIS FORM WILL NOT BE USED TO CHANGE OR SHIFT PRIMARY TRAINING DATES.

3. LOGISTIC REQUIREMENTS (POL, LINEN, DF EQUIPMENT).

REQUIREMENT	ACTION (CHANGE, ADD OR CANCEL)	DESCRIPTION	DATE	LOGISTICS ACTION

4. BILLETING/TROOP HOUSING REQUIREMENTS.

BUILDING TYPE/QUANTITY	ACTION (CHANGE,ADD OR CANCEL)	NUMBER OF MALE PERSONNEL	NUMBER OF FEMALE PERSONNEL	DATE	BILLETING ACTION

5. STRENGTH. (Only used to Change, Add or Cancel ADVON Personnel, NOT to change/shift actual training dates)

ADVANCE PARTY DATE(S)	ACTION (CHANGE,ADD OR CANCEL)	NUMBER OF MALE PERSONNEL	NUMBER OF FEMALE PERSONNEL	RFMSS RCNI	POTS ACTION

SIGNATURE OF REQUESTOR _____

PRINTED NAME/TITLE _____

PHONE _____

DATE _____

APPENDIX E
Joint Use Memorandum

FTIG-TC-POTS

Date: _____

MEMORANDUM FOR Commander, Fort Indiantown Gap Training Center, ATTN: FTIG-TC-POTS, Building 11-09, Fort Indiantown Gap, Annville, PA 17002-5003

SUBJECT: Range and Training Land Joint Use Memorandum of Agreement

1. As a designated representative of (Scheduled Unit) _____ I am entering in to a joint use with (Requesting Unit) _____ for the use of the following ranges and/or training areas / facilities:

2. The requesting unit plans to conduct the following type of training on the ranges or training lands that I have assigned to my unit: (Include Airspace Use) _____

3. Units are responsible for the following actions as initialed:

Scheduled Unit		Requesting Unit
	Signing for the training Facility	
	Providing Qualified OIC and RSO (if training requires RSO)	
	Performing Required Communications Checks with Range Operations	
	Keeping Range Operations Informed of BOTH units intentions	
	Policing and Clearing of the Range or Training Facility	
	Other (Explain)	

4. This joint use agreement terminates upon the departure of either unit.

5. This joint use agreement is not valid until signed by a POTS (Chief of Plans, Operations, Training and Security) representative.

Scheduled Unit	Requesting Unit
Signature	Signature
Date	Date
Name Print	Name Print
Rank and Title	Rank and Title
Telephone Number	Telephone Number

POTS Representative
Name:
Date:
Signature:
POTS Representative Remarks

APPENDIX F

Range/Firing Point Denial List

Range/Firing Point	Denial*
Range 2 (M203)	TA: A-32, A-33, A-34, Acorn Rd
Range 2 (Mortar Subcal)	TA: A-32, A-33, A-34, Acorn Rd & Ranges 3, 4
Range 3	TA: A-32, A-33, A-34, Acorn Rd & Range 2 (Mortar Subcal) Range 4 denies West half
Range 4	TA: A-32, A-33, A-34, Acorn Road, West half of Range 3, Eastern side of Range 6
Range 5	TA: A-32, A-33, A-34, Acorn Road & Range 6 (Movement forward of Firing Line on eastern side, after creek on western side)
Range 5A	TA: A-32, A-33, A-34, Acorn Road & Range 5
Range 6 (West) (Defensive)	TA: A-32, A-33, A-34, Acorn Road & Range 5, 7, 12A for 7.62, 8A
Range 6 (East) (Offensive)	TA: A-32, A-33, A-34, Acorn Road & Ranges 8A, & 7, 12A for 7.62
Range 7	TA: A-32, A-33, A-34, Acorn Road & Range 6 (Movement forward creek either side), & Range 8A
Range 8 Zero & Qual	TA: A-32, A-33, A-34, Acorn Road & Range 6 (West & East), Range 20 Station 3, 8A
Range 8A	TA: A-32, A-33, A-34, Acorn Road & Ranges 6, 7, 8Z, 8Q, 9Q (4 Eastern Lanes)
Range 9 Zero	TA: A-32, A-33, A-34, Acorn Road
Range 9 Qual	TA: A-32, A-33, A-34, Acorn Road & Range 8A (if 9Q uses 4 Eastern Lanes), Range 20 Station 3
Range 10Z	TA: A-32, A-33, A-34, Acorn Road
Range 11Q	TA: A-32, A-33, A-34, Acorn Road & Range 12A
Range 12A	TA: A-32, A-33, A-34, B-6A, B-6B, Acorn Road & Range 11Q
Range 13	TA: A-32, A-33, A-34, B-6A, B-6B, Acorn Road
Range 13A	TA: A-32, A-33, A-34, B-6B, Acorn Road
Range 14	TA: A-32, A-33, A-34, B-6A, B-6B, Acorn Road
Range 14A	TA: A-32, A-33, A-34, B-6A, B-6B, Acorn Road
Range 15	TA: A-32, A-33, A-34, B-6A, B-6B, Acorn Road, & If Firing 7.62 Range 8A, 12A, 13, 13A, 14, 14A
Range 16	TA: A-32, A-33, A-34, B-6A, B-6B, Acorn Road, & If Firing 7.62 Range 12A
Range 17	TA: A-32, A-33, A-34, B-6A, B-6B, Acorn Road
Range 20 Station3	TA: A-32, A-33, A-34 Acorn Road & Range 8A, 8Z, 9Q

* Denials listed on this page are based on SDZs IAW AR 385-63. However, to create a safe training environment, Range Operations will deny TAs A-32, A-33, A-34 and Acorn Road whenever any Range Road range is "WET."

Corridor ranges and firing point denials are based upon the following assumptions:

1. Mortar Full Fan without Restrictions Indirect Fire Target Box (Chart 5-1) denies and is denied by the use of Ranges 25, 35 and 36; Firing Points (FPs) D-7-1, **F-1-1, F-1-2**, F-1-3, F-1-8, **and Trail 7**, Training Areas D-05B & D-07B; FO Bunker and McLean Road from **UK5864776802 to UK5635575580** (and the portion of the North Tank Trail that parallels that portion of McLean Road).
2. Mortar Full Fan with Restrictions Indirect Fire Target Box (Chart 5-2) denies and is denied by the use of Ranges 25, 35 and 36; FPs D-7-1, Training Areas D-05B and D-07B; FO Bunker, and McLean Road from **UK5864776802 to UK5635575580** (and the portion of the North Tank Trail that parallels that portion of McLean Road).
3. Mortar Reduced Fan without Restrictions Fire Target Box (Chart 5-3) denies and is denied by the use of **FPs F-1-1, F-1-2**, F-1-3, F-1-8 **and trail 7**.
4. The Mortar Reduced Fan with Restrictions Indirect Fire Target Box (Chart 5-4) **denies no ranges or FPs**.
5. Artillery Target Box's 1, 2, 3 and 4 and Paladin maneuver box in Bravo areas denies Ranges 24C, 25, 34 and 35 (downrange only) the FO Bunker, OP 9, TA's C-03, D-05B, D-07B7, FP's F-1-3, F-1-8 and Trail 7 north of F-1-3.
6. Artillery Target Box's 5, 6 and 7 denies Ranges 24B, 24C, 25, 34 and 35 (downrange only) the FO Bunker, OP 9 and TA's C-03, D-05B and D-07B.
7. All denials listed on following page are in addition to these denials.

Training Corridor Ranges

Range/Firing Point	Denial
Range 23A	Mortar FP: F-1-10, C-5-3, Range 23 Door, 34, 38
Range 23 Door	TAs C-03, D-02, D-04, D05A/B, D-7B, D-08C, Range 23A, 23C, 23D, 24 Series, 34, 34 (Down Range Only), 36, 39, Demo D, FO Bunker & All Indirect FPs
Range 23C	Mortar FP F-1-10, C-5-3, Range 23 Door, 34, 38
Range 23D	Mortar FP F-1-10, C-5-3, Range 23 Door, 34, 38
Range 23E FARP	Mortar FP: C-5-3, Range 34, 38
Range 24B (TOW Inert Round)	All Active indirect FPs TA: D-05A, D-05B, D-07B, D-08C, OP9, & Range: 23 Door, 34, 35,36, FO Bunker, Demo C, Demo D
Range 24B MK19	TA D-07B, & Range 23 Door, 34, 35, FO Bunker, OP9
Range 27	Artillery FP: D-3-2, D-3-10 TA:D-02, D-03C. Demo C, RGs 36 and 37
Range 33	TA: C-09
Range 34	All 23 and 24 Series Ranges, Range 38, 39, FO Bunker, FP F-1-10, C-5-3, FP C-4-7, TA C-03, C-04, C-05A, C-05B, C-06, D-07B, OP9, OP11
Range 35	FO Bunker
Range 36	FPs F-1-1, F-1-2, F-1-3, F-1-8, D-3-2, D-3-9, D-3-12, RG 27, Demo C, TAs D-03C, D-02
Range 37	FP D-3-12, D-3-12, TA D-02, D-03C, Demo C, RG 27 (downrange), RG 36 (downrange) Trail 9
Range 37 25mm	TA D-02, D-03A, D-03C, D-03D, D-04, D-05A. D-05B, Range 27, 36, FPs F-1-1, F-1-2, F-1-3, F-1-8, D-3-2, D-3-6, D-3-8, D-3-10, D-3-12, Demo C, D, Trail 6 7, 8, 10, & Gas Chamber D
Range 38	TAs C-03, C-04, C-05A, C-05B, DEMO B Ranges: All 23 and 24 Series, 34 (only if using OBJs C &D), 39, FP C-4-7, C-5-3, F-1-10
Demo Site B Based on 500 meter blast area	Artillery FP: C-4-7 TA: C-04, C-05A, C-05B, C-06 & Range 38
Demo D Based on 1000 meter blast area	RGs 35 & 36 (only in downrange target areas), TA D-05B, & ALL FP's
FO Bunker	RGs 23 Door, 24B (Tow), 24B (MK19), 34 and 35, TA D-07B, Weise Rd. & All Indirect FP's

All artillery positions must protect the muzzle danger area by road guards or barricades.

Training Corridor Firing Points (FP)

Range	Denial
FP B-9-1 (105,155)	Arty FP: B-9-2, RG: 24B (TOW), Range 25, 34 Down Range, 35 Down Range, 36 Down Range, OP 9, TAs B-09B, B-09C, B-10A, B-11A, B-11B, D-02, D-05B, D-07B, Demo D, Weise Rd, FO Bunker
FP B-9-2 (105,155)	Arty FP: B-9-1, RG: 24B (TOW) Range 25, 34 Down Range, 35 Down Range, 36 Down Range, OP 9, TAs B-09a, B-09B, B-10A, B-11A, 11B, D-02, D-05B, D-07B, Demo D, Weise Rd, FO Bunker
FP B-9-4	Use as Trains Area Only No Denials
FP B-10-2 (105, 155)	Range 24B Tow, 25, 34 Down Range, 35 Down Range, OP9, TAs B-10A, B-10B, B-11B, D-02, D-05B, D-07B, Demo D, Weise Road, FO Bunker
FP B-10-5 (105,155)	Range 24B (TOW) 25, 34 Down Range, 35 Down Range, 36 Down Range, OP 9, TAs B-11A, B-11B, B-12A, B-12B, D-02, D-05B, D-07B, Demo D, Weise Rd, FO Bunker
FP B-11-3 (105, 155)	Range 24B (TOW) 25, 34 Down Range, 35 Down Range, 36 Down Range, OP 9, TAs B-11A, B-12A, B- D-02, B-05B, B-07B, Demo D, Weise Rd, FO Bunker
FP B-11-4 (105, 155)	Range 24B (TOW),25, 34 Down Range, 35 Down Range, 36 Down Range, OP 9, TAs B-12A, D-02, 05B, 07B, Demo D, Weise Rd. RG 30 must provide unit a map. FO Bunker
FP B-12-3 (105, 155)	Range 24B (TOW) 25, 34 Down Range, 35 Down Range, 36 Down Range, OP 9, TAs B-12A, D-02, 05B, 07B, Demo D, Weise Rd, FO Bunker
FP C-4-1	Use as trains area only No Denials
FP C-4-7 (105, 155)	Range 25, 34 Down Range, 35 Down Range, 36 Down Range, OP-9, TAs C-03, C-04, C-05A, C-05B, D-02, D-05B, D-07B, Demo D, McLean Rd from Cold Springs to Range 23E, Weise Road, FO Bunker
FP C-5-3 (81,120, 81mm sub-cal)	Range: 23A, 23C, 23D, 23E, 24B (TOW), 25, 34 Down Range, 35 Down Range, 36 Down Range, TAs D-05B, Demo D, TA D-07B, OP9, FO Bunker
FP D-3-2 (105,155)	Range 24B (TOW), 25, 34 Down Range, 35 Down Range, 36 Down Range, Demo D, TAs D-02, D-03A, D-05B D-03C, 07B, OP 9, Weise Road, FO Bunker

FP D-3-6 (105, 155)	Range 24B (TOW), 25, 34 Down Range, 35 Down Range, 36 Down Range, Demo D, TAs D-02, D-03A, D-05B, D-03C, 07B, OP 9, Weise Road, FO Bunker
FP D-3-8 (105, 155)	Range 24B (TOW), 25, 34 Down Range, 35 Down Range, 36 Down Range, Demo D, TAs D-02, D-03A, D-05B, D-03C, 07B, OP 9, Weise Road, FO Bunker
FP D-3-10 (105) (155)	Range 24B (TOW), 25, 34 Down Range, 35 Down Range, 36 Down Range, Demo D, TAs D-02, D-03A, D-05B, D-03C, 07B, OP 9, Weise Road, FO Bunker
FP D-3-12 (105) (155)	Range 24B (TOW), 25, 34 Down Range, 35 Down Range, 36 Down Range, Demo D, TAs D-02, D-03A, D-05B, D-03C, 07B, OP 9, Weise Road, FO Bunker
FP F-1-1 (60,81,120)	RG 24B (TOW), Range 34 & 35 Down Range, 36, Weise Rd, FO Bunker, TAs D-05B, D-07B, Demo D, OP 9
FP F-1-2 (60,81,120)	RG 24B (TOW), Range 34 & 35 Down Range, 36, Weise Rd, FO Bunker, TA D-05B, D-07B, Demo D, OP 9
FP F-1-3 (60,81,120)	RG 24B (TOW), Range 34 & 35 Down Range, 36, Weise Rd, FO Bunker, TAs D-05B,D-07B, Demo D, OP 9
FP F-1-8 (60,81,120)	RG 24B (TOW), Range 34 & 35 Down Range, 36, Weise Rd, FO Bunker, TAs D-05B, D-07B, Demo D, OP 9
FP F-1-10 (60,81,120)	Range 23A, 23C, 23D, 24B (TOW), 34 Down Range, 35 Down Range, TA C-03, D-05B, D-07B, Demo D, OP 9, Weise Road, FO Bunker

APPENDIX G

Mortar and Artillery Firing Point Safety Data

1. PURPOSE. To prescribe required safety computations, and safety limits for each firing point. Any unsafe data will be brought to the immediate attention of the Range Officer.

2. MORTARS.

- a. Firing mortars over the heads of troops is prohibited.
- b. All persons who take part in mortar firing will wear helmets.
- c. Increments removed from rounds before firing will be placed in a metal or wooden covered container located outside the firing vehicle/position at a safe fire separation distance (25 meters).
- d. The safety limits for all listed mortar firing points have been computed IAW AR 385-63. This only serves as a general guideline; i.e., in some instances units may choose to fire a different azimuth of fire which alters left and right limits providing all data remains within the impact area. Units are responsible to compute and apply all Probable Errors (PEs) for min/max ranges and left/right deflections within the safety limits of each safety fan.
- e. See FTIG Regulation 350-2, Appendix A, for established mortar and artillery firing points.
- f. Coordinate with Range Operations to confirm:
 - (1) Grid Coordinates of the firing position
 - (2) Lateral Safety Limits
 - (3) Minimum and maximum ranges
 - (4) Authorized ammunition to be fired
 - (5) Airspace restrictions
 - (6) Trajectory
 - (7) Target Area
 - (8) Hours firing may be conducted

3. ARTILLERY.

- a. Artillery may be fired over the heads of unprotected troops except for within danger area E.” (AR 385-63, Ch11).
- b. All persons who take part in artillery firing will wear helmets.
- c. Powder charges removed from rounds before firing will be placed in a metal or wooden covered container or a powder pit located outside the firing vehicle/position at a safe fire separation distance (25 meters).

- d. Improved Conventional Munitions (ICM) rounds are prohibited.
- e. Using units will plot safety limits on firing charts.
- f. Minimum safe arming times for VT fuzes will be calculated using the minimum range to the impact area.
- g. Safety limits must be adjusted on firing charts and safety "T's" upon completion of registration.
- h. Safety limits must be adjusted for high angle fire to compensate for the large amount of drift and 10-mil site factor for min and max ranges.
- i. Coordinate with Range Operations to confirm:
 - 1) Grid Coordinates of the firing position
 - 2) Lateral Safety Limits
 - 3) Minimum and maximum ranges
 - 4) Authorized ammunition to be fired
 - 5) Airspace restrictions
 - 6) Trajectory
 - 7) Target Area
 - 8) Hours firing may be conducted
 - 9) Location of Barriers/Road Guards

4. AIRSPACE LIMITATIONS AND MAXIMUM ORDINATES. The ceiling of Restricted Airspace R5802-B (13,000 feet above MSL) determines the maximum ordinate - and therefore Quadrant Elevation - for indirect fire of mortars and artillery. These restrictions are distinct from ground safety requirements and will be used as maximum elevations only when they are less than those established for ground safety. The data below is applicable only for standard (published) firing points and ranges. Altitude of the firing point(s) and the vertical SDZ has been considered. Units must give Range Operations maximum ordinate 24hr prior to live fire.

WEAPON	CHARGE	MAXIMUM ELEVATION
60mm Mortar	ALL	No restriction
81mm Mortar	ALL	No restriction
107mm (4.2 inch) Mortar	ALL	No restriction
105mm HOW	1, 2, 3, 4	No restriction
	5	1130 mils
	6	920 mils
	7	780 mils
155mm HOW	1, 2, 3G	No restriction
	4G	1000 mils
	5G	850 mils
	3W	1075 mils
	4W	925 mils
	5W	810 mils
	6W	710 mils
	7W	610 mils
81mm Subcal (120mm Mortar)	ALL	No restriction
120mm Mortar	0, 1, 2, 3	No restriction
	4	1171 mils

5. REGISTRATION POINTS. The following are descriptions and grids of surveyed registration points:

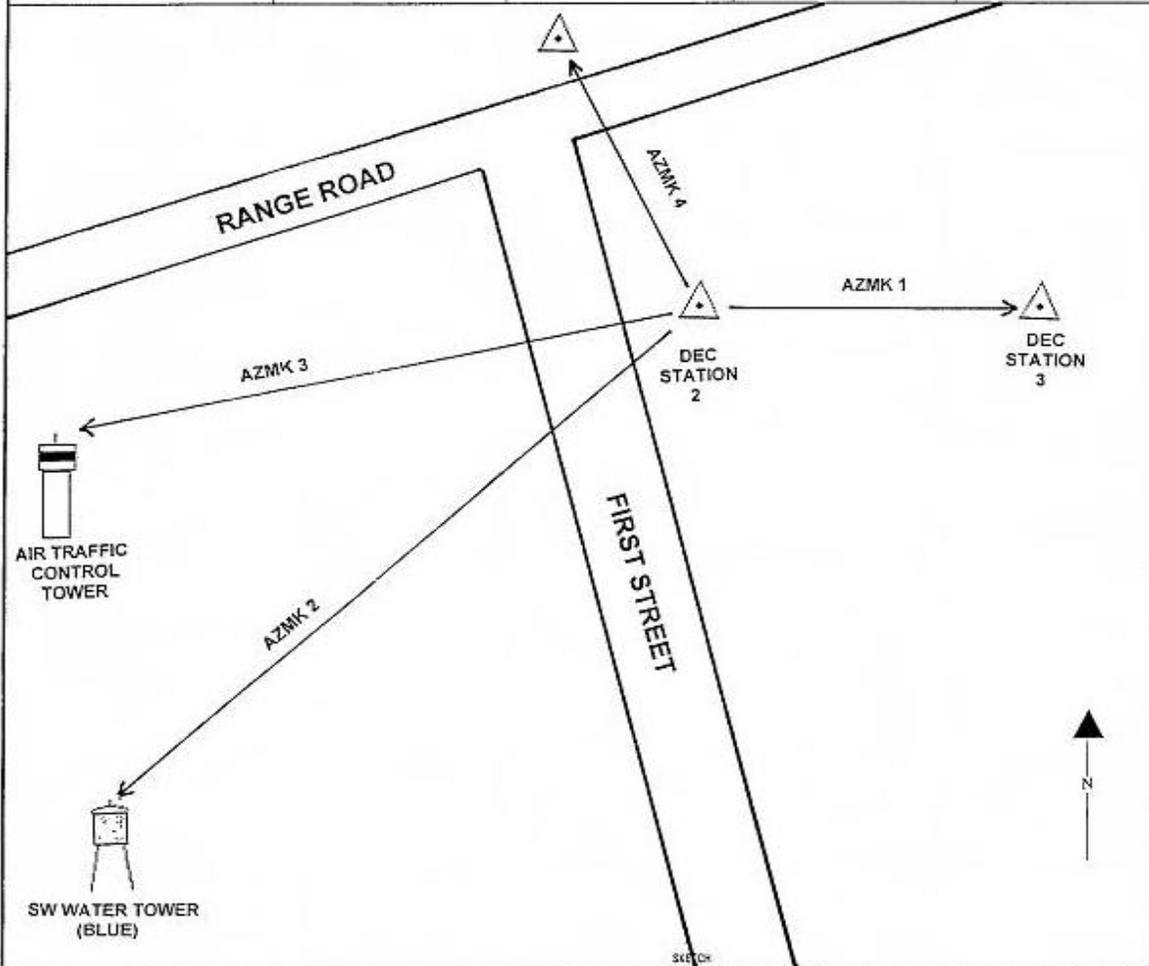
RP #1: UK5823277564; north of trail intersection, on trail; M114 APC

RP #2: UK5810277515; west of trail intersection; M114 APC

APPENDIX H

Declination Station Data

COUNTRY United States		TYPE OF MARK 105mm casing set in concrete		STATION Declination Station 2	
LOCALITY FtIG, Annville PA		STAMPING ON MARK		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM NAD 1929	
(NORTHING) (EASTING)	(FT) (M)	(EASTING) (NORTHING)	(FT) (M)	ESTABLISHED BY (AGENCY) HHB 28th Divarty	
(NORTHING) ██████████	(FT) (M)	(EASTING) ██████████	(FT) (M)	GRID AND ZONE UTM 18T	
44 78 056.074		368 059.512		DATE 01 Aug 99	ORDER 4th
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODEIC AZIMUTH	
TO OBTAIN		GRID AZ. (ADD) (SUB.)		TO THE GEODEIC AZIMUTH	
OBJECT	AZIMUTH ██████████ (GRID)	BACK AZIMUTH	GEOD. DISTANCE (METERS)	GRID. DISTANCE (FEET)	
	██████████ (GRID) mls	██████████ mls	(FEET)	(FEET)	
AZMK 1-Dec Station 3	1126. 545	4326. 545			
AZMK 2-SW Waterower	3625. 985	0425. 985			
AZMK 3-AT Cntrl Tower	4244. 004	1044. 004			
AZMK 4-Aluminum Plate	5976. 265	2776. 265			



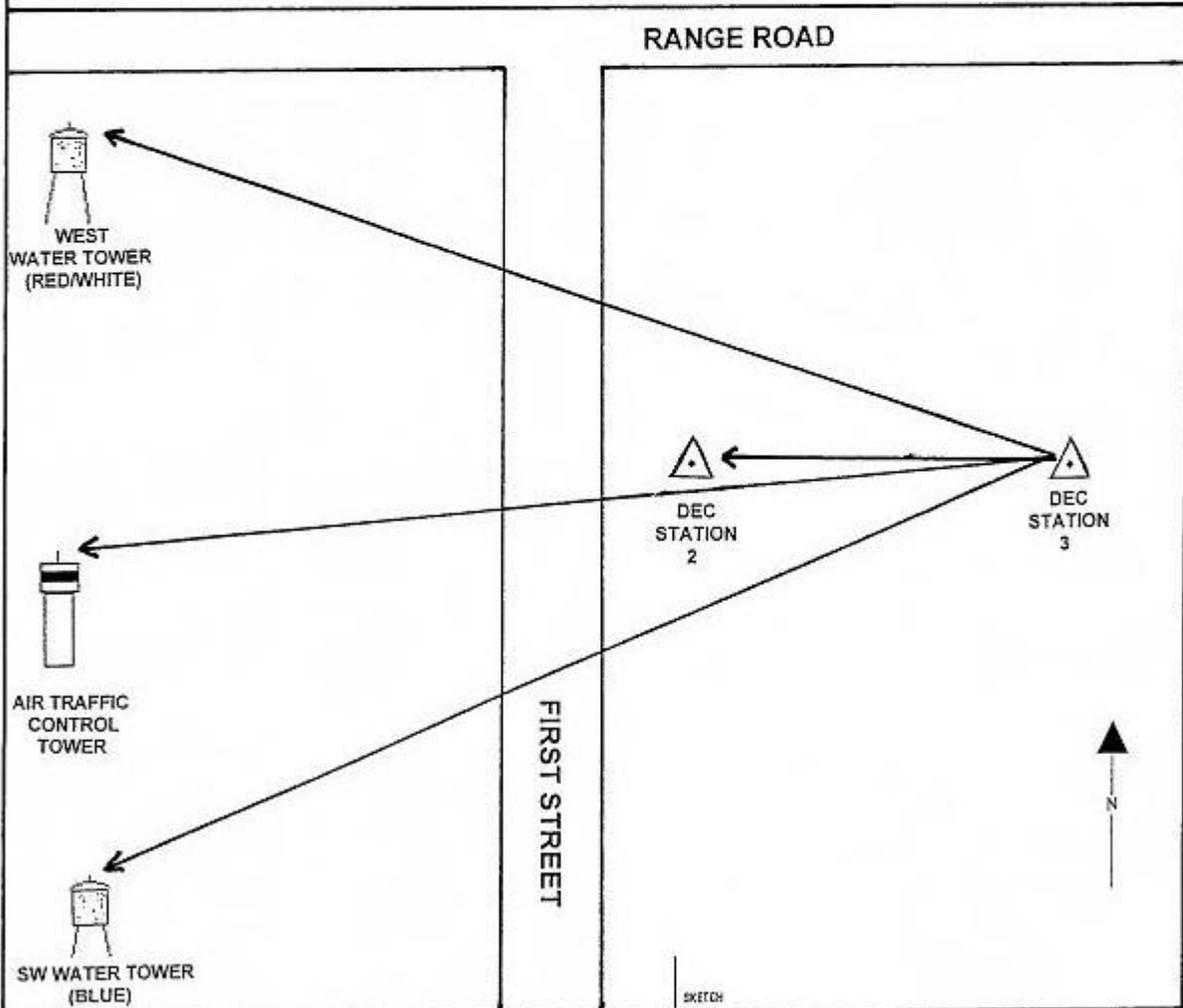
DA FORM 1959, OCT 64

REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the program agency is TRADOC.

USAPA V1.00

COUNTRY United States		TYPE OF MARK Alum plate set in concrete		STATION (RESET) Declination Station 3	
LOCALITY FtIG, Annville PA		STAMPING ON MARK		AGENCY (CAST IN MARKS)	
LATITUDE		LONGITUDE		DATUM NAD 1929	
NORTHING (EASTING) (FT) (M)		EASTING (NORTHING) (FT) (M)		GRID AND ZONE	
18:368215.5 (M)		4478132.3 (M)		ESTABLISHED BY (AGENCY) HHB 28th Divarty	
GRID AND ZONE		DATE		ORDER	
UTM 18T		01 Aug 99		4th	
TO OBTAIN		GRID AZIMUTH, ADD		TO THE GEODETIC AZIMUTH	
TO OBTAIN		GRID AZ, ADD (SUB.)		TO THE GEODETIC AZIMUTH	
OBJECT	AZIMUTH (MILS)	BACK AZIMUTH (MILS)	GEOD. DISTANCE (METERS)	GEOD. DISTANCE (FEET)	GRID. DISTANCE (METERS)
SW Water Tower	3674. 380	0474. 380			
Air Traffic Cntrl Tower	4253. 597	1053. 597			
Declination Station 3	4326. 710	1126. 710			
West Water Tower	4334. 430	1134. 430			



DA FORM 1959, OCT 64

REPLACES DA FORMS 1959 AND 1960, 1 FEB 57, WHICH ARE OBSOLETE.

DESCRIPTION OR RECOVERY OF HORIZONTAL CONTROL STATION
For use of this form, see TM 5-237; the proponent agency is TRADOC.

USAPA V1.03

WGS 84 DATA

(USE WITH H-1 & H-2 WHEN USING WGS 84 MAP)

- **DEC STATION #2**

UK 6809278271

- **DEC STATION #3**

UK 6824878347

APPENDIX I
Designated Landing Zones

The following are designated LZs.

<u>Name/</u> <u>Description</u>	<u>Training Area</u>	<u>Coordinates</u>
Open Field	B-07B	UK6448279465 76°35'53.62"W 40°27'17.3"N
*Range 23A	23A	UK6022277985 76°38'53.25"W 40°26'26.78"N
*LZ Blue	D-0B8	UK5832474761 76°40'10.82"W 40°24'39.62"N
*Range 27	D-03C	UK5458074478 76°42'49.761"W 40°24'29.615"N
*West Field	A-01	UK6363275015 76°36'26.26"W 40°24'52.53"N
Muir AAF	Airfield	UK6658277265 76°34'22.83"W 40°26'7.20"N
Open Field	A-17	UK6819277885 76°33'14.99"W 40°26'28.22"N
Range 24B	24B	UK5935277055 76°39'29.42"W 40.25'56.1"N
Tomahawk	B-10B	UK6480882022 76°35'43.67"W 40°28'36.97"N
Medina Ridge	B-10B	UK 6408381641 76°36'12.25"W 40°28'27.62"N

Range 30	Range 30	UK 6226379309 76°37'27.921"W 40°27'10.549"N
Range 34	North LZ	UK 5923776845 76°39'34.149"W 40°25'49.223"N
Range 34	South LZ	UK 6032776517 76°38'47.643"W 40°25'39.245"N
TA B-12A	Open Field	UK 6238079790 76°37'23.098"W 40°27'26.602"N
Range 39	Open Field	UK 6076577974 76°38'29.983"W 40°26'51.360"N

***Real LifeLion location of LZ's.**

Below LZ's are not designated for training, LifeLion Designation only.

Med Evac Pad	Area 7	UK 6705076850 76°34.68S"W 40°26.86S"N
Tmc Med Evac Only	Baseball Field	UK 6465076500 76°40°25.48S"W 40°76°35.44S"N
East Field	TA A-15	UK 6930078900 76°32.29S"W 40°27.09S"N
Range 25	Mclean Rd	UK 5791076070 76°40.30S"W 40°25.30S"N
FP C-4-3	TA C-04	UK 6184078580 76°37.45S"W 40°26.54S"N
FIRING POINT B-8-2	TA B-08	UK 6290078660 76°37.00S"W 40°26.56S"N
Open Area	Stoney Creek	UK 5845079760 76°40.10S"W 40°27.30S"N
Dresden Lake	Stoney Creek	UK 6225081850 76°37.30S"W 40°28.40S"N

APPENDIX J

Restricted and Off-Limits Areas

1. **PURPOSE.** To define those areas, roads or facilities restricted from use without special permission or are prohibited/off-limits.
2. **POLICY.** Entry into Fort Indiantown Gap training areas must be coordinated and approved in advance. Large portions of the installation are contaminated areas containing UXOs or are enveloped in SDZs. When areas or facilities are not scheduled for training, other activities such as maintenance and repair, hunting, wood gathering, prescribed-burning or air-to-ground operations may be conducted.
3. **RESTRICTED AREAS.** The following are restricted areas and will not be entered without approval of the Range Officer:
 - a. Antenna Site/Repeater Site
 - b. LZ Blue (100 meter radius around the LZ)
 - c. Medina Ridge LZ and Medina Ridge Trail
 - d. Tomahawk LZ
 - e. Second Mountain Fire Break (from grid UK6174680686 to grid UK5334276117)
 - f. Downrange areas of all ranges
 - g. Acorn Road
4. **PROHIBITED/OFF-LIMITS AREAS.** Training units are prohibited from the following areas:
 - a. The Fenced Impact Area
 - b. Any area closed by a road barrier
 - c. The Ammunition Supply Point (ASP) and its immediate vicinity
 - d. St. Paul's Cemetery
 - e. Private property holdings
 - f. Any area marked as a "Scientific Research Area", except when dismantled.
 - g. 25 meter buffer of any wetlands, streams, intermittent streams, drainage swales, or sedimentation control structures.
 - h. The Pennsylvania Department of Transportation Training Facility located in TA C1
 - i. Fish Nursery in TA B-08
 - j. Any area marked with Seibert stakes.

APPENDIX K

Range Operations Spill Response Plan

ENVIRONMENTAL CONSIDERATIONS. All units training on this installation will comply with applicable Federal, State, and Local environmental rules and regulations. Questions concerning these regulations should be referred to the Department of Military and Veterans Affairs (DMVA), Bureau of Environmental Management, at Extension 717-861-8181, Bldg. 0-11.

a. All spills of POL products and other hazardous substances will be immediately reported to Range Operations by radio or telephone. If the spill **cannot** be contained and cleaned-up using the unit spill kits **and/or** has entered a water source or conveyance, **and/or** involves an unknown material, Range Operations will immediately call 911. (This will notify both the FTIG Fire Department and the County response team). If 911 is called, Range Operations will also immediately notify someone from the Bureau of Environmental Management employee roster sheet.

b. Senior person present will complete the one-page Spill Report Form (ENV Form 100). This Spill Report Form must be submitted immediately to Range Operations.

c. Spill clean-up often generates hazardous wastes that require proper disposal. Proper disposal of any contaminated soil, spill absorbents or spill pads will be IAW instructions from the DMVA Bureau of Environmental Management in Bldg. 0-11.

SPILL REPORT

1. INCIDENT DATE: _____ INCIDENT TIME: _____
2. REPORT DATE: _____ DISCOVERY TIME: _____
3. FACILITY NAME, COUNTY, and TOWNSHIP: _____
4. NEAREST BUILDING LOCATION or TRAINING AREA: _____
5. UNIT: _____
6. PERSON REPORTING: _____ PHONE: _____
7. COMMANDER: _____ PHONE: _____

SPILL EVENT DETAILS:

8. Product: _____
9. Storage Capacity of Product Container (i.e. size of fuel tank): _____
10. Spill Volume (exact or estimated gallons): _____
11. Size of Area Affected by Release (sq. ft.): _____
12. Duration of Release (how long was the material actually being released): _____

- | | YES | NO |
|--|--------------------------|--------------------------|
| 13. Spill contained on premises? | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. If not, did the spill enter pipes or ditches? | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. If not, did the spill enter a body of water? | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Nearest body of water, or body of water spill entered? _____ | | Distance _____ |

17. Source/Cause of Spill: (check one)
- | | | |
|---|---|---|
| <input type="checkbox"/> leaking drums/containers | <input type="checkbox"/> damaged container | |
| <input type="checkbox"/> leaking refueler, HEMTT or pod | <input type="checkbox"/> drive off, hose in vehicle | <input type="checkbox"/> overfill, vehicle unattended |
| <input type="checkbox"/> overfill, during fuel drop | <input type="checkbox"/> equipment failure | <input type="checkbox"/> other _____ |

18. Did you use a spill kit? Yes No
19. If yes, Check one: Unit Spill Kit Range Operations Kit Fire Dept FTIG Fuel Point Other
20. Amount of spill kit supplies used/to be re-stocked: _____

21. Type, Quantity and Disposal Location of material generated:
- | | | |
|-----------------------------|----------------------------------|-------------------------------------|
| Type: _____ | Quantity: _____ | Location: _____ |
| (soil, pads, liquids, etc.) | (# of bags, dms., cu. yd., etc.) | (at spill site or Area 11 Dumpster) |
| Type: _____ | Quantity: _____ | Location: _____ |
| (soil, pads, liquids, etc.) | (# of bags, dms., cu. yd., etc.) | (at spill site or Area 11 Dumpster) |

22. Measures taken to prevent recurring incidents:

Additional pertinent information: _____

23. SIGNATURE: _____ FAX TO: 717-861-8249 within 24 Hours of Spill Incident.

ENVIRONMENTAL OFFICE USE ONLY

- | | | |
|----------------------------|-----------------------|--------------|
| 24. <u>AGENCY NOTIFIED</u> | <u>REPRESENTATIVE</u> | <u>PHONE</u> |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

APPENDIX M

Request for Non-Standard Training (Sample Memo)

HEADQUARTERS
2d Battalion 508th Infantry
111 First Street
Somewhere, Pennsylvania 12345-1234

Office Symbol

Date

MEMORANDUM FOR Commander, Training Site, FTIG, ATTN: FTIG-TC-POTS, Annville, PA
17003-5002

SUBJECT: Request for Non-Standard Training

1. Reference FTIG Regulation 350-2, Chapter 1, paragraph 1-2h, 31 MAY 2014.
2. Request approval to conduct Non-Standard Training as outlined below:

Date/Time:

Weapon System:

Ammunition:

Activity/Firing Location:

Direction of fire:

Target Locations:

Number of Personnel:

OIC Rank/Name:

RSO Rank/Name:

3. Relevant Background Information:
4. General explanation of training to be conducted, along with the safety control measures to be implemented. The more relevant information that is included the better able the Range Officer will be to make a determination.
5. POC for this action is MAJ Creighton C. Sherman, S-3, at 717-123-6543.

2 Encls

1. Risk Assessment
2. OP Sketch

R.M. SHOESTOMPER
LTC, IN, PAARNG
Commanding

APPENDIX N

Range Operations Communication Procedures - Hazardous

TO INITIATE ANY TRANSMISSION:

“RANGE OPERATIONS, THIS IS UNIT ____ AT TRAINING AREA/RANGE ____.”
(WAIT FOR RESPONSE)

ONCE RANGE OPERATIONS HAS RESPONDED TO YOUR TRANSMISSION:

WITH ALL TRANSMISSIONS, A *TIME* AND *CODE* IS GIVEN TO YOU (THE RTO) **WRITE THIS DOWN!** WE MAY REQUIRE YOU TO VERIFY THE TIME AND CODE GIVEN TO YOU AT ANY TIME DURING YOUR USE OF THE TRAINING AREA/RANGE.

ALWAYS USE PHONETIC ALPHABET WHEN CALLING IN OIC/RSO CARD NUMBERS!!!

TO OCCUPY: “RANGE OPERATIONS, THIS IS UNIT ____ AT TRAINING AREA/RANGE ____, REQUEST PERMISSION TO OCCUPY TRAINING AREA/RANGE ____, UNDER OIC CARD NUMBER _____, THE NUMBER OF PERSONNEL TRAINING AT THIS SITE WILL BE _____ AND THE NUMBER AND TYPE OF VEHICLES WILL BE _____ OVER” (OCCUPATION TIME AND CODE _____)

***Note – when sending the number of personnel and vehicles include total number of each that will be onsite during the duration of the training for the day. Update Range Operations with changes as appropriate.

TO GO WET: “RANGE OPERATIONS THIS IS UNIT ____ AT TRAINING AREA/RANGE ____, REQUEST PERMISSION TO GO WET UNDER RSO NUMBER _____, FIRING ____ TYPE OF WEAPONS, ____ TYPE OF AMMO: DODIC NUMBER ____ OVER” (WET TME AND CODE _____)

TO GO DRY: “RANGE OPERATIONS, THIS IS UNIT ____ AT TRAINING AREA/RANGE ____, REQUEST PERMISSION TO GO DRY, FIRED ____ NUMBER OF ROUNDS, DODIC NUMBER ____, OVER” (DRY TIME AND CODE _____)

TO DEPART:

IF RE-OCCUPYING NEXT DAY:

“RANGE OPERATIONS, THIS IS UNIT ____ AT TRAINING AREA/RANGE ____ REQUEST PERMISSION TO DEPART THIS AREA FOR THE DAY” (DEPARTURE TIME AND CODE _____)

IF UNIT IS NOT RE-OCCUPYING NEXT DAY:

“RANGE OPERATIONS, THIS IS UNIT ____ AT TRAINING AREA/RANGE ____ REQUEST PERMISSION TO DEPART THIS AREA, WE ALSO REQUEST A RANGE INSPECTOR TO CLEAR OUR LOCATION, OVER”

TO CHANGE OIC: “RANGE OPERATIONS, THIS IS UNIT ____, AT TRAINING AREA/RANGE ____, REQUEST PERMISSION TO CHANGE OIC, UNDER NEW OIC CARD NUMBER ____, OVER” (OIC CHANGE TIME AND CODE _____)

TO CHANGE RSO: “RANGE OPERATIONS THIS IS UNIT ____, AT TRAINING AREA/RANGE ____, REQUEST PERMISSION TO CHANGE RSO, UNDER NEW RSO CARD NUMBER ____, OVER” (RSO CHANGE TIME AND CODE _____)

RADIO CHECK: “RANGE OPERATIONS THIS IS UNIT ____, AT TRAINING AREA/RANGE ____, RADIO CHECK, OVER”

**HAZARDOUS TRAINING REQUIRES HOURLY RADIO CHECKS,
NON HAZARDOUS TRAINING REQUIRES RADIO CHECKS EVERY 3 HOURS.**

RADIO CHECK 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Range Operations Communication Procedures - Non-Hazardous

TO INITIATE ANY TRANSMISSION:

“RANGE OPERATIONS, THIS IS UNIT ____ AT TRAINING AREA/RANGE ____.”
(WAIT FOR RESPONSE)

ONCE RANGE OPERATIONS HAS RESPONDED TO YOUR TRANSMISSION:

WITH ALL TRANSMISSIONS, A *TIME* AND *CODE* IS GIVEN TO YOU (THE RTO) **WRITE THIS DOWN!** WE MAY REQUIRE YOU TO VERIFY THAT TIME AND CODE GIVEN TO YOU AT ANY TIME DURING YOUR USE OF THE TRAINING AREA/RANGE.

ALWAYS USE PHONETIC ALPHABET WHEN CALLING IN OIC/RSO CARD NUMBERS!!!

TO OCCUPY: “RANGE OPERATIONS, THIS IS UNIT ____ AT TRAINING AREA/RANGE ____, REQUEST PERMISSION TO OCCUPY TRAINING AREA/RANGE ____, UNDER OIC CARD NUMBER _____, THE NUMBER OF PERSONNEL TRAINING AT THIS SITE WILL BE _____ AND THE NUMBER AND TYPE OF VEHICLES WILL BE _____ OVER” (OCCUPATION TIME AND CODE _____)

***Note – when sending the number of personnel and vehicles include total number of each that will be onsite during the duration of the training for the day. Update Range Operations with changes as appropriate.

TO DEPART:

IF RE-OCCUPYING NEXT DAY:

“RANGE OPERATIONS, THIS IS UNIT ____ AT TRAINING AREA/RANGE ____ REQUEST PERMISSION TO DEPART THIS AREA FOR THE DAY, OVER” (DEPARTURE TIME AND CODE _____)

IF UNIT IS NOT RE-OCCUPYING NEXT DAY:

“RANGE OPERATIONS, THIS IS UNIT ____ AT TRAINING AREA/RANGE ____ REQUEST PERMISSION TO DEPART THIS AREA, WE ALSO REQUEST A RANGE INSPECTOR TO CLEAR OUR LOCATION, OVER”

TO CHANGE OIC: “RANGE OPERATIONS, THIS IS UNIT ____, AT TRAINING AREA/RANGE ____, REQUEST PERMISSION TO CHANGE OIC, UNDER NEW OIC CARD NUMBER ____, OVER” (OIC CHANGE TIME AND CODE _____)

RADIO CHECK: “RANGE OPERATIONS THIS IS UNIT ____, AT TRAINING AREA/RANGE ____, RADIO CHECK, OVER”

NON HAZARDOUS TRAINING REQUIRES RADIO CHECKS EVERY 3 HOURS.

RADIO CHECK 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

APPENDIX O

RNOIC/RSO Statement of Acknowledgement

TO: Fort Indiantown Gap Range Operations

Reference FTIG Regulation 350-2, AR 385-63, AR 385-10

I _____, the assigned RNOIC of _____ acknowledge I have read & understand FTIG Regulation 350-2, the Range SOP, applicable Field Manuals, & the Technical Manuals relating to the training events I am conducting. I will ensure all the above references are with me while training is being conducted.

The following list is the stated responsibilities of the RNOIC. As assigned RNOIC, I will initial after each item below:

1. All RSOs & I have a valid FTIG Range Safety Card & have a completed & approved risk assessment in our possession. _____
2. The RSO, the required medical coverage & I will remain here during all hazardous training activities. _____
3. I am accountable for all range facility equipment & keys. _____
4. Upon occupation of this training facility, I will establish radio communications with Range Operations & ensure it is maintained & monitored on dedicated equipment until given a clearance/departure time & code from Range Operations. I will cease training if I lose communications with Range Operations. _____
5. The RSO & I know the range facility location, safe routes in & out, & the limits for the weapons being used. I will notify Range Operations & receive permission to use weapons systems, ammunition, explosives, & pyrotechnics before their use. _____
6. Prior to beginning hazardous training, I will ensure all personnel receive a safety briefing covering (at a minimum) UXOs, hearing protection use, seasonal warnings, weapons & ammunition warnings, procedures for misfires/ hang fires, immediate/remedial action, the installation/training area boundaries, the importance of not firing over the mountains, "check-fire freeze," & the installation's program on ammunition amnesty (AAP) & ammunition found on post (AFOP). _____
7. I will ensure no live ammunition is issued to firers until they are on the firing line. _____
8. I will ensure barriers are locked or guards are in place & the red flag/light is displayed on the flagpole. Range Operations will be notified of all cease fires exceeding 30 minutes. _____
9. I will immediately notify Range Operations of any serious or unusual situation occurring on the range, including all injuries, accidents, & weapons/ammunition malfunctions. _____
10. I will personally supervise procedures for misfires, hang fires, & cook offs. _____
11. I understand this list is not all inclusive. I am responsible for safe training at this location & will take whatever actions necessary to ensure safety is an integral part of this training activity. _____

RNOIC Signature

DATE

Safety Officer Statement. I have read the above OIC requirements. I will support the OIC in maintaining a safe training environment. I understand my only assigned duty here is to maintain safety.

RSO Signature

DATE

Printed Name of RSO

APPENDIX P

Training Outline EST 2000/FATS IV Weapons Simulations (Sample)

Intent:

Describe what you want your soldiers to be trained on, IWQ, BRM, ARM, Squad tactics etc.

Training Objectives:

EXAMPLE: Use EST 2000 for Zero and qualification of individual weapon prior to live fire exercise to include: Zero and RETS qualification.

Personnel:

How many soldiers are to be trained?

Time:

From what time is training to start and end? Include time hacks for chow if applicable.

POC:

Unit designator

Unit training NCO/Officer and contact number

Appendix Q

Fort Indiantown Gap Range Operations
Commander's Live Fire Shoot House (LFSH)
Certification Letter

Reference FTIG Regulation 350-2, AR 385-63, AR 385-10, Range 32 LFSH SOP

I, _____, the commanding officer (O5 & Above or civilian equivalent) of the unit/organization conducting LFSH training on Range 32, acknowledge that I have read and understand FTIG Regulation 350-2 and the Range 32 SOP.

The following list is the stated prerequisite training event requirements, range cadre requirements, and equipment requirements that have been or will be fulfilled prior to my unit/organization conducting live fire training on Range 32. I will initial after each of the below items, verifying the requirement has been or will be completed.

- 1. I have verified that the designated RNOICs and RSOs have valid FTIG Range Safety Cards and a completed and signed risk assessment in their possession.
2. I have designated a qualified MASTER TRAINER to provide safety and tactical oversight for the training event. (A Master Trainer is defined as follows: successfully completed the FTIG LFSH Trainer Course or equivalent, or has served as a RNOIC, RSO or AI three or more times for pervious LFSH exercises, and has been identified as a subject matter expert by you.)

MASTER TRAINER QUALIFICATION (mark an "x" next to which qualification(s) apply)

- Completed FTIG LFSH Trainer Course or equivalent
Served as RNOIC, RSO, or AI three or more times for previous LFSH exercises

_____, Name, Title, Rank, Grade of individual serving as Master Trainer

- 3. I have verified that all range cadre personnel (RNOICs, RSOs, AIs, and Master Trainer) have completed the FTIG LFSH Orientation within the past 14 days.
4. I have verified that all personnel actively participating in the training "shooters" have qualified with their assigned weapon(s) within the past 12 months.
5. I have verified that all personnel actively participating in the training "shooters" have conducted Short Range Marksmanship Training (SRM) with their assigned weapon(s) within the past 6 months.
6. I have verified that all personnel actively participating in the training "shooters" have participated in urban operations training within the past 6 months.
7. I will ensure that all personnel actively participating in the training "shooters" along with the range cadre conduct a dry fire iteration and or blank fire iteration prior to commencing with a live fire iteration.
8. I will ensure that all personnel actively participating in the training "shooters" to include range cadre will don the appropriate personal protective equipment (PPE) prior to conducting a live fire exercise.

PPE REQUIREMENTS: Ballistic Spectacles, Hearing Protection, Body Armor Vests w/ Plates, Helmet (ACH or Kevlar), Safety Color Vests (road guard vests) for Range Cadre

- 9. I understand that this list is not all inclusive. I am responsible for safe training of my unit/organization on Range 32 and will take whatever actions necessary to ensure safety is an integral part of this training activity.

Commander's Signature Date
Unit/Organization Email and Phone Number

APPENDIX R

General Release Statements

General Liability Statement

In consideration for receiving permission to participate in activities at Fort Indiantown Gap, Pennsylvania (FTIG), I hereby **FULLY RELEASE, FOREVER DISCHARGE, AND AGREE TO HOLD HARMLESS**, for any and all purposes, FTIG, U.S. Army, Department of Defense, Commonwealth of Pennsylvania and their respective officers, servants, agents, volunteers and employees (collectively, the "Released Parties"), of and from any and all liability to me, my personal representatives, assigns, heirs and next of kin, for any damage to or loss of my property, any injury to my person, including death, arising directly or indirectly out of my participation in the activities, **INCLUDING ANY SUCH DAMAGE, LOSS OR INJURY THAT IS CAUSED BY ANY ACT OR OMISSION ON THE PART OF THE RELEASED PARTIES**. I further agree to **INDEMNIFY, DEFEND, AND HOLD HARMLESS** the Released Parties for, from, and against any and all liabilities, damages, claims, lawsuits, costs (including court costs, attorneys' fees and costs of investigation), and actions of any kind or description for any damage to or loss of property or injury to persons, including death, arising out of the activities at FTIG or my participation in the activities, **INCLUDING ANY DAMAGE, LOSS OR INJURY CAUSED BY ANY ACT OR OMISSION ON THE PART OF THE RELEASED PARTIES, INCLUDING ANY NEGLIGENT CONDUCT OF THE RELEASED PARTIES** but excluding any gross negligence or willful misconduct of the Released Parties.

By execution below **I HEREBY ACKNOWLEDGE** that there are inherent risks involved in this Volunteer Program and **I RECOGNIZE AND ASSUME** all of the risks associated with participation in the activities at FTIG. **I ACKNOWLEDGE THAT IT IS IMPORTANT THAT I VERIFY THAT I HAVE INSURANCE COVERAGE WHICH EXTENDS TO ME WHILE PARTICIPATING IN THE ACTIVITIES, AND THAT I SECURE SUCH COVERAGE IF I DO NOT ALREADY HAVE IT**. I understand that FTIG does not provide such coverage, and that no insurance coverage may exist through FTIG to cover any injuries or damages which I may sustain or claims which may arise as a result of my participation in the activities at FTIG.

Important Information

FTIG has been in use by the military for about 77 years. All different types of training occurred all over this land. Finding, stepping or driving on a Unexploded Ordnance (UXO) is possible. You, as the user, must always be alert to your surroundings.

Media Release

I give FTIG the right to use my name, my still photo or video image, or my words (audio or text-based) in any media, for purposes of evaluation, activities, research, promotion, marketing, recruiting, fund raising, exhibits or any other lawful purpose. I waive any right to inspect or approve the use of any hard copy or electronic record that may appear in connection with such use. This release is for worldwide use.

***Privacy Act and Policy**

All participants of activities at FTIG, technical assistance, and exercises are advised that disclosure of a full Social Security Number (SSN) is optional. A participant's SSN or personal information will not be disclosed to any other person(s) without the participant's prior written consent. Personal data is solicited under Authority 10 USC 3012 and Army Regulation (AR) 27-40.

Acknowledgement

I acknowledge and represent that I have read the foregoing, understand it and sign it voluntarily as my free act and deed; no representations or statements have been made to me to induce me to execute this document. I execute this document for full, adequate and complete consideration fully intending to be bound by the same, now and in the future.

Activity: _____

Location(s): _____

Signature: _____ Date: _____
MM/DD/YYYY

Printed Name: _____

Person to notify in case of emergency: _____

Relationship: _____ Telephone or Cell No. with area code: _____

APPENDIX R1

General Release Statements

Declaration (child):

My child desires to participate in the activities stated above at his/her own risk. I state that my child is in good health, physically fit to participate in this activity and has no known medical condition which could jeopardize his/her safety during participation in this activity or be aggravated by such participation.

Acknowledgement

I acknowledge and represent that I have read the foregoing, understand it and sign it voluntarily as my free act and deed; no representations or statements have been made to me to induce me to execute this document. I execute this document for full, adequate and complete consideration fully intending to be bound by the same, now and in the future.

Name of Child: _____ Age: _____

Relationship to Child: _____

Signature of Parent/Guardian: _____ Date: _____
MM/DD/YYYY

Printed Name: _____

Cell No. with area code: _____

Declaration (vehicle):

I authorize the use of my privately owned vehicle in a training event at FTIG. The use of my privately owned vehicle by my unit and the Pennsylvania National Guard is undertaken at my own risk.

Acknowledgement

I acknowledge and represent that I have read the foregoing, understand it and sign it voluntarily as my free act and deed; no representations or statements have been made to me to induce me to execute this document. I execute this document for full, adequate and complete consideration fully intending to be bound by the same, now and in the future.

Signature: _____ Date: _____
MM/DD/YYYY

Printed Name: _____

Vehicle Make and Model: _____ Year: _____

Insurance Carrier: _____

Cell No. with area code: _____

APPENDIX S



(INSERT UNIT HEADER)

Training Site

29 May 2014

Garrison Commander
Building T-0-1, Fort Indiantown Gap
Annville, Pennsylvania 17003

Dear Garrison Commander:

[*Requesting civilian organizations name*] is requesting to utilize assets at Fort Indiantown Gap, Pennsylvania on [*list dates*].

Give a full detail description of what assets (i.e. ranges, training areas, billets) you are requesting, your objective in utilizing the requested assets and why. The more relevant information that is included will better enable the Garrison Commander to make a decision. Ensure you list a point of contact with a phone number in case there are questions.

If the initial request (letter) meets the Garrison Commander's and the Judge Advocate General's approval a FTIG Form 214 will be sent to the point of contact for completion. Completed FTIG Form 214 can either be mailed to Range Scheduling, Building 11-9, Fort Indiantown Gap, Annville, Pennsylvania 17003 or faxed to 717-861-2832.

Once the requested assets on the FTIG Form 214 are scheduled, a confirmation packet containing a letter signed by the Garrison Commander, Commander's License, FTIG Training Center Facility Utilization Invoice and confirmation of assets will be mailed.

Checks are to be made out to U. S. Department of Treasury.

Questions can be directed to Range Scheduling at 717-861-2204.

Sincerely,

T. Ann Shields

(INSERT UNIT HEADER)

Memorandum for Record

Date:_____

Subject: Additional Duty Safety Appointment

1. Effective this date, the following individuals are appointed as the Safety OIC/NCOIC.

- a. Rank Name last 4 SSN
- b. Rank Name last 4 SSN
- c. Rank Name last 4 SSN
- d. Rank Name last 4 SSN

2. Authority: AR 385-10/NGR 385-10 Para 2-14 (Unit Safety Officers)

3. Purpose:

- a. Assist the commander with the unit CRM Program.
- b. Assist the commander in establishing plans and procedures for conducting a unit safety program.
- c. Assist the commander in supervising safety training as required.
- d. Assist the commander in conducting safety inspections, reviewing operating and training instructions, and initiating actions necessary to eliminate inherent or accident-producing hazards in coordination with appropriate offices.
- e. Assist the commander in ensuring that accidents are investigated and reported IAW AR 385-10, DA Pamphlet (Pam) 385-40 and this regulation.

4. Period: Until officially relieved or released from this appointment.

5. Special Instructions: You must complete the Additional Duty Safety Course within 90 Days of appointment per NGR 385-10, Appendix C, Para c-3

6. POC for this action is (Unit Rep/S-1) phone & e-mail address.

CMDRs Signature
 Rank
 Title

APPENDIX U

NON-DOD EXAMPLE SAFETY LETTER

Organizations Name
Address
Phone # W/ Area Code

Date
Subject: Safety Coordinator

I certify that the following individuals listed below are competent and properly instructed to perform the duties as the Safety Officer for our organization. If weapons systems and tactics are to be utilized for training they are knowledgeable and fully trained to provide oversight for these training events.

This certification is effective for one year from the date of this memorandum.

Reference: FTIG Regulation 350-2 page 12, paragraph 1-9b (5)

Weapons Type: If applicable

Safety Officer: List names

POC for this action is: Name and Phone #

Supervisors Signature
Title

APPENDIX V

800MHz PROGRAMMING PROCEDURES.

1. The 800 MHz radio system is the current primary communication system to be used while on Fort Indiantown Gap. For those units other than Pennsylvania Army National Guard, the units can hand receipt a hand held radio if available from Range Operations.
2. These are the procedures for utilizing the 800MHz radios:
 - a. When in the FTIG area, radios will receive an Over The Air Re-key (OTAR)
 - b. Users must “find” the RINGSFTY (Range Safety) net **EVERY TIME** the radio is powered on.
 - c. PORTABLES
 - (1) Press the “Up” Arrow on the front of the radio until “Profile Menu” is displayed.
 - (2) On the left side of the radio press the “Up” or “Down” button (located directly above PTT) until “Range” is displayed.
 - (3) Press the ”M” button on the front of the radio. You are now in the Range Operations Profile. Channel 1 is the main RINGSFTY talk group.
 - d. PELICAN CASE
 - (1) Press the “Up” arrow until “Profile Menu” is displayed.
 - (2) Press the “Left” or “Right arrow until “Range” is displayed.
 - (3) Press “Select”. You are now in the Range Operations Profile. Channel 1 is the main RINGSFTY talk group.
3. Should you have any connectivity problems, use an alternate communication method to contact Range Operations Fire Desk at 717-861-2152 to request support.

APPENDIX W

DEPARTMENT OF THE ARMY
 HEADQUARTERS, FT. INDIANTOWN GAP
 1 GARRISON ROAD ANNVILLE, PA 17003-5002
 BLDG. T-01

**LOAN OF FORT INDIANTOWN GAP, TRAINING SUPPORT CENTER PROPERTY
 STANDARD OPERATING PROCEDURES (3March 2014)**

1. PURPOSE:

- a. To establish policies and control procedures for use and turn-in of Training Support Center property or equipment.
- b. Emphasize the need for proper care and accountability of equipment while in the unit’s possession.
- c. Establish procedures in the event equipment is lost, damaged, or destroyed while hand receipted to unit.
- d. Establish/reiterate Training Support Center (TSC) actions regarding delinquent accounts.
- e. Establish internal control procedures IAW AR 11-2 Appendix B - Government Accountability Office Standards for Internal Control in the Federal Government.

2. SCOPE: These policies and procedures apply to all entities receiving support from TSC Fort Indiantown Gap (FTIG).

3. GENERAL:

- a. Unit Commanders are responsible for ensuring that unit personnel are onsite at the TSC to accomplish issue/turn-in of equipment (e.g. program funding for TDY trips to FTIG from Western Pennsylvania as necessary).
- b. Requests for training classes on Training Aids will be submitted, in writing, to the TSC NLT 15 days prior to class date. Equipment requiring trained operators WILL NOT be issued to any un-trained personnel. The following equipment requires training certification; (SEE TRAINING CHART BELOW) (Note) Individual Weapons Systems (IWS) replaced the Legacy MILES System. Units must schedule with the TSC for Train the Trainer NET classes to draw the IWS.
- c. Training Site Simulations Branch will operate EST 2000, FATS, AGTS, CDT, ODS, VCOT, CFFT 1:30, HEAT, MET.

Certification classes for Soldiers in Simulations				
Class	Expiration Date	Hrs Required	Times	Instructor: Student Ratio
HEAT Rollover	1 yr	7 hrs	0830--1530	2:12
MRAP Rollover	1 yr	7 hrs	0830--1530	2:12
CFFT	1 yr	40 hrs	0830--1530	2:06
CDT	1 yr	32 hrs	0830--1530	1:06
ODS	1 yr	7 hrs	0830--1530	1:03

Area 5 Simulations	
Class	
VCOT	Regular Hrs and Weekends upon RFMSS Request
VVT	
EST	

Train the Trainer at TSC				
Class	Expiration Date	Hrs Required	Times	Instructor: Student Ratio
IEDES (non-pyro)	1 yr	7	0830--1500	1:12
IEDES (pyro)	1 yr	7	0830--1200	1:12
LCCATS	2 yrs	8	0900--1500	1:06
LMTS	2 yrs	7	0830--1500	1:08
IWS(M16/M4/SLM)	2 yrs	6	0900--1500	1:12
Duke/Thor III	2 yrs	6	0830--1530	1:06
MACS	2 yrs	2	0900--1100	1:10
Pneumatic Gun	1 yr	2	0900--1100	1:06
Javelin(BST Only)	2 yrs	32	0830--1530	1:06
BDM	2 yrs	2	0900--1100	1:12

4. RESPONSIBILITIES:

a. Training Support Center, FTIG:

(1) Manage and maintain accountability of TSC equipment in (TS-MATS) Training Support Material Army wide Tracking System.

(2) Issue and receive TSC equipment for supported units.

(3) Conduct inspections of returned equipment to ensure all components are physically present and in working order for inventory and maintenance management.

(4) Conduct functional tests and makes repairs on equipment.

(5) Coordinate and provide assistance for replacing inoperative equipment.

(6) Schedule equipment loans to accommodate the widest dissemination among supported units. Canvas other Training Support Centers for equipment that is not on hand or available at TSC, FTIG (at least 15 days advanced notice from customer units is required).

b. COMMANDER/ACCOUNTABLE OFFICER OF USING UNIT

(1) Determine equipment required for training and submit request to TSC IAW Para 5b of this regulation. Note: requests received after the 15-day time requirement will be authorized on a case-by-case basis by the Training Support Officer or his/her designated representative.

(2) Manage and maintain accountability of TSC equipment while under unit's control.

(3) Ensure hand receipts are up to date at all times. Personnel who are signed for TSC equipment must clear the TSC prior to reassignment, PCS, ETS, retirement, etc. Unit must then reestablish new hand receipt with TSC.

(4) Ensure TSC property is turned-in on time. Coordinate with TSC, via telephone; if an issue arises (e.g. weather delays, vehicle breakdown, etc.). It is highly recommended that the same personnel draw and turn-in equipment at the TSC. This is advantageous in the event that equipment is lost /damaged as a cash collection and/or Financial Liability Investigation of Property Loss (FLIPL) will be initiated.

(5) Maintain TSC equipment and ensure training devices are not miss-used, altered, or abused in any manner.

(6) Ensure a government vehicle is dispatched to transport TSC equipment. Note: some equipment at the TSC is large /cumbersome; therefore, plan to dispatch a properly sized vehicle. No POVs are authorized to transport TSC equipment.

(7) Ensure that only trained and licensed operators are authorized to use equipment.

c. **PERSONNEL WHO DRAW EQUIPMENT**

(1) Only personnel authorized by signature card, DA Form 1687 (May 2009), may draw equipment.

(2) Paperwork must be completed and received by TSC NLT 15 days prior to drawing equipment from the TSC warehouse.

(3) Be prepared to load/unload TSC equipment from unit vehicle(s).

(4) Conduct an inventory of equipment upon receipt from TSC warehouse to ensure all components are physically present PRIOR to departure from TSC.

(5) Provide a copy of Training Support Material Army wide Tracking System (TSMATS) paper work to the TSC in order to complete turn-in of equipment.

5. EQUIPMENT REQUEST PROCEDURES:

a. Request for equipment will be submitted on Unit Letterhead, or TSC TADSS Request Form and will include: unit, point of contact, address, phone number, date of requested issue/turn-in, and the quantity of each item requested.

b. Requests shall be hand-carried, mailed, faxed, or scanned and sent electronically to TSC, FTIG, Building 11-07 NLT 15 DAYS PRIOR for GENERAL ISSUE AND WEEKEND TRAINING or 60 DAYS PRIOR to ANNUAL TRAINING.

c. If a unit fails to return TSC items as scheduled, TSC will freeze the unit's TSC account. The unit commander is then required to personally contact TSC in order to resolve the outstanding TSC issues before TSC will reinstate the unit's account.

d. If unit fails to pick up TSC items on the scheduled issue date, TSC reserves the right to issue TSC items to other requesting units.

e. TSC mailing address:
Training Support Center
Building 11-07, Service Road
Ft. Indiantown Gap
Annville, PA 17003-5002

f. Unit must request equipment only for the number of personnel anticipated for unit training.

g. TSC will review all requests. If requested quantities seem excessive, TSC may require additional justification from unit commander. This requirement is necessary to guarantee the widest dissemination of requested equipment for supported units.

6. GRAPHIC TRAINING AIDS (GTAs) REQUEST PROCEDURES: Unit will request GTA mail outs on Unit Letterhead or personally pick items up at TSC, FTIG.

7. EQUIPMENT ISSUE PROCEDURES:

a. A signature card, DA Form 1687 (May 2009), must be on file at TSC and must be signed by the Commander or Accountable Officer. Only personnel on the DA Form 1687 (May 2009) can sign for and turn-in equipment. NOTE: full unit address is required on DA form 1687.

b. A 100% joint property inventory of all TSC equipment is required upon issuance.

c. Units are required to have their TSC accounts up to date and all paperwork in order PRIOR to drawing equipment from the TSC warehouse.

d. It is the unit's responsibility to ensure they have the correct number and size of vehicle(s) to transport TSC equipment in a safe and proper manner.

8. EQUIPMENT TURN-IN PROCEDURES:

a. Units are responsible for unloading all TSC equipment from their vehicle(s).

- b. All TSC equipment will be returned in, clean, dry, and in working condition.
- c. Units will bring their copy of the issue paperwork with them when turning in TSC equipment.
- d. Unit personnel with sub-hand receipts and TSC staff will perform a 100% joint inventory and inspection of all equipment when returned to TSC. The original hand receipt holder is still ultimately held accountable for any missing equipment or shortages.
- e. Lost or damaged TSC equipment will be reported IAW Para 9 below.

9. PROCEDURES FOR LOST OR DAMAGED EQUIPMENT:

- a. Commanders are responsible to ensure proper accountability of all equipment and components.
- b. Lost or Damaged Equipment: Units will have 15 working days from the time equipment is discovered lost or damaged to submit a FLIPL (Financial Liability Investigations of Property Loss), cash collection, or statement of charges to TSC. The document(s) must be signed by the unit commander and have all supporting documentation attached. One copy will be retained by the unit. The original and five copies will be forwarded to the FTIG Training Support Officer. Upon receipt of the FLIPL paperwork by TSC, a document number will be assigned by the FTIG Training Center Property Book Officer. One copy will be retained by TSC. One copy will be sent to the Chief of Plans, Operations, Training and Security (POTS). The original and three copies will be forwarded to the appointing authority at the customer unit's higher headquarters. TSC will obtain an approved copy of the final determination of the survey for TSC files.
- c. If a report of survey, cash collection, or statement of charges is not submitted within fifteen working days of the known loss, a memorandum from the unit commander explaining the reason for the delay must accompany the FLIPL documentation.
- d. Damaged equipment will be turned-in to TSC for repairs with a damage statement. All missing components/equipment will be annotated on a TS-MATS generated DA Form 2062 at the time of turn-in. Units will have a 15-day suspense to return items. If not returned within the 15 days window, the UNIT'S ACCOUNT WILL BE CLOSED, AND ALL ITEMS ON LOAN FROM TSC WILL BE DECLARED DELINQUENT AND ORDERED TO BE RETURNED TO TSC. TSC WILL ALSO NOTIFY UNITS' HIGHER HEADQUARTERS ABOUT THIS PROBLEM. Submission of a statement of charges, cash collection, report of survey, or FLIPL to the TSC is the only way relief of responsibility will be granted and the above action /process stopped.

10. DELINQUENT ACCOUNTS:

- a. TS-MATS generated DA 2062 Hand Receipts are valid for six months. Units with long-term accounts are responsible for maintaining and keeping documents current on an annual basis. If there is a change of command, unit personnel are required to submit a new DA Form 1687 (May 2009) Signature Card. Account will be frozen and no equipment will be issued without a valid signature card.
- b. Delinquent accounts over 30 days due will result in a written notice to the unit commander. The TSC will request immediate action concerning the delinquency. Failure to resolve the delinquent account will result in notification to the unit's higher headquarters. TSC will then initiate a FLIPL per AR 735-5.

TSC POINT OF CONTACT:

Training Support Officer
Bldg. 11-07, Service Road,
Annville, PA 17003-5002
Office: 717-861-2920/DSN 491-2920
Fax: 717-861-2026
E-Mail: Randy.Nagel@us.army.mil

FTIG CANTONMENT AREA TRAINING SITREP

SITREPS will be submitted to FTIG Range Operations, in person (building 11-9) or via email ([The RFMSS](#) Functional Administrator david.g.weigle.ctr@mail.mil or via fax (717-861-2832), no later than 0830 hours the day after training is conducted.

DATE: _____

LINE 1: UNIT: _____ ADDRESS: _____
LOCAL PHONE #: _____

LINE 2: TOTAL NUMBER OF PERSONNEL: _____

LINE 3: UNIT LOCATION/TRAINING OBJECTIVE(S):

_____/_____
_____/_____
_____/_____
_____/_____

LINE 4: ACCIDENTS/INJURIES: YES NO N/A

SERIOUS INCIDENT REPORT (SIR) SUBMITTED: YES NO

SIR SUBMITTED TO: _____

LINE 5: RISK ASSESSMENT COMPLETED: YES NO

ADDITIONAL INFORMATION (include vehicle type/quantity and SIR information if applicable):

SIGNATURE: _____

PRINTED NAME: _____

(Commander or senior leader in the rank of E-7 or above must sign)

APPENDIX Y

Fort Indiantown Gap Range Operations
Commander's Rappel Operations Certification Letter

Reference FTIG Regulation 350-2, TC 21-24, Rappel Tower and Climbing Wall Operations SOP, RG 30 CACTF SOP, RG 31 SOP, Collapsed Structure Site SOP

Rappel Operations is defined as any training encompassing Rappelling from designated buildings, towers, and helicopters. As well as utilizing the Rock Climbing Wall.

I, _____, the commanding officer (O5 & Above or
Name, Title, Rank, Grade

civilian equivalent) of the unit/organization conducting Rappel Operations, acknowledge that I have read and understand FTIG Regulation 350-2, TC 21-24, and the appropriate Training Facility/Range SOP. The following list is the prerequisite training event requirements, range cadre requirements, and equipment requirements that have been or will be fulfilled prior to my unit/organization conducting rappel operation training. I will initial after each of the below items, verifying the requirement have been or will be completed.

1. I have verified that the designated RNOIC has a valid FTIG Range Safety Card and a properly completed risk assessment in their possession. _____
2. I have designated a school house trained Rappel Master or civilian equivalent that is trained and knowledgeable in their duties IAW TC 21-24. (A Rappel Master is required for rotary wing rappelling and fast roping operations. Units may conduct ground training and wall-side tower rappelling without a school-trained rappel master as long as the OIC listed below assumes the duties and responsibilities of the Rappel Master.)

Name, Title, Rank, Grade of individual serving as Rappel Master

3. I have designated a Rappel Safety Officer to serve as OIC during (circle the appropriate training event(s)) Ground Training, Wall Side-Tower Rappelling, Rock Climbing Wall, or Helicopter Rappelling. He holds the rank of E7 or above and is trained on applicable rappel master tasks. _____

RAPPEL SAFETY OFFICER SERVING AS OIC (mark an "x" next to which qualification(s) apply)

- _____ Has had extensive training in rappelling and risk management
- _____ Completed Rappel Master Course
- _____ Completed one of the following courses: Air-assault and/or Ranger
- _____ Basic Military Mountaineering (summer or winter)

Name, Title, Rank, Grade of individual serving as OIC

4. I have verified that all Rappel Lane NCO's hold the rank of corporal or above and are trained in the safe and proper execution of rappelling operations in the past 6 months IAW TC 21-24. _____
5. I have verified that all Belay Safeties hold the rank of corporal or above and are Ranger qualified, Air Assault qualified, or civilian equivalent. _____
6. I have verified that all Belayers participating in the training have been trained in belaying procedures and responsibilities. _____
7. I have verified that the Rappel Safety Officer participating in the training has inspected all equipment (installation, unit, and personal property) to include maintaining accurate and current rope logs (DA FORM 5752-R) for all ropes to be utilized in rappelling operations. _____
8. I understand that this list is not all inclusive. I am responsible for the safe training of my unit/organization during Rappel Operations and will take whatever actions necessary to ensure safety is an integral part of this training activity.

Commander's Signature

Date

Unit/Organization

Email and Phone Number