



**UNCLASSIFIED**



# *Summary of Change*

## **FTIG REGULATION 350-2**

Training at Fort Indiantown Gap

This is a major revision, dated 01 July 2021 -

- Revision - Regulation format
- Addition - Simulations fire desk
- Addition - MSTC capabilities
- Revision - Unit priority lists
- Revision - Capabilities for available mortar and artillery firing points
- Revision - List of authorized ammunition
- Addition - High Hazard training definition and Command certification
- Addition - Aerial Gunnery capabilities

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 01 JULY 2021

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## Directorate of Plans, Operations, Training and Security Range Operations

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**History.** This publication supersedes FTIG 350-2 12 MAY 2018. This printing publishes changes made since that date.

**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, Operations, 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: Directorate of Plans, Operations, Training and Security.

**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, Operations, Training and Security.

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## Chapter 1 Introduction

### 1-1. Purpose

This regulation prescribes procedures to be followed by all units training at Fort Indiantown Gap (FTIG) in order to ensure realistic training that will enhance combat readiness of all customers while simultaneously ensuring safe operations on the Installation Training Complex (ITC) in an environmentally sound and fiscally efficient manner.

### 1-2. References

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

### 1-3. Explanation of abbreviations and terms

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

### 1-4. Scope

This regulation applies to all Department of Defense (DOD) organizations, Other Government Agencies (OGAs), and authorized civilian groups accessing the ITC.

### 1-5. Range Safety Program responsibilities

*a. State Safety Office (SSO):* Advise and assist in establishing, supervising, and directing the Pennsylvania Army National Guard (PAARNG) Safety and Occupational Health programs. The SSO can be contacted at 717-861-8813/8895, Building 11-9. In support of the Range Safety Program, the SSO will –

- (1) Provide assistance to the installation Range Management Authority (RMA) on hazard abatement and risk assessment.
- (2) Investigate and file reports for serious range accidents and incidents in accordance with (IAW) DA PAM 385-40.
- (3) Review all range deviations prior to submission to the National Guard Bureau (NGB).
- (4) Conduct general safety briefings for organizations training on the installation (see Chapter 1-8 *a.*).
- (5) Conduct annual safety inspections of high risk training areas.

*b. Range Management Authority (RMA):* Appointed by the Garrison Commander for the control, supervision, safety, issuance, clearance, and management of all range training activities and facilities on the Installation Training Complex. Adheres to the responsibilities and requirements in Army Regulation (AR), Department of the Army Pamphlet (DA PAM) and National Guard Regulation (NGR) 385-63, Range Safety. The RMA can be contacted at 717-861-2975, Building 11-9. The RMA will –

- (1) Ensure this regulation and installation policy remain current to applicable range and safety directives.
- (2) Manage and supervise Range Operations personnel and operations.
- (3) Serve as the central point of control and coordination for access to ranges, training areas, the Impact Area, and Restricted Airspace R5802 A/B/C/D/E.
- (4) Will function as net control for all range frequencies on the ITC.
- (5) Serve as an emergency services dispatch for incidents that occur on the ITC.
- (6) Oversee safety on the ITC and serves as the center of expertise for range safety to include the Department of Defense's unexploded ordnance (UXO) procedures, the 3Rs program.
- (7) Maintain the office of record for all historical range data.
- (8) Advise and coordinate with the Range Officer in Charge (OIC) to ensure the safe and efficient operation of range facilities. This includes inspections and/or supervision of firing, ensuring compliance with this regulation.
- (9) Make corrections of any violations of this regulation or other applicable directives to include relieving the OIC or Range Safety Officer (RSO) when appropriate.
- (10) Provide safety briefings, guidance, and range orientation for OICs and RSOs.
- (11) Investigate accidents/incidents as required.
- (12) Ensure all range equipment is accounted for and maintained in a serviceable condition, adequate for issue to units.
- (13) Coordinate for and oversee all planning, construction, and maintenance on the ITC in order to sustain facilities and/or remain current with Army doctrine.
- (14) Notify the SSO of any serious range accidents or incidents.

*c. Quality Assurance Specialist Ammunition Surveillance (QASAS):* A regionally aligned ammunition expert who is available to assist and train with quality assurance and safety in the handling, storage, use, and transport of Class V materials. The QASAS can be contacted at 717-861-9671, Building 11-9. In support of the Range Safety Program, the QASAS will-

- (1) Ensure only ammunition that is cleared for overhead fire is issued.
- (2) Ensure ammunition is stored, handled, and transported IAW applicable regulations, standards, and policies.

(3) Investigate and forward malfunction reports in accordance with AR 75-1 and DA PAM 385-40, as appropriate. Acts as installations coordinator for ammunition malfunctions, explosive accidents, and ammunition investigations.

(4) Provide units with technical assistance concerning all aspects of ammunition and explosives.

(5) Act as an ammunition liaison with Range Operations, SSO, the Training Center Logistics office, Explosive Ordnance Disposal (EOD) personnel, and training units.

*d. FTIG Police:* Responsible for law enforcement and security on the installation. The FTIG Police can be contacted at 717-861-2727, Building 7-5. In support of the Range Safety Program, the FTIG Police will-

(1) Assist and compliment physical security of the ITC and government property found therein.

(2) Enforce federal and state laws, as well as, applicable Army Regulations, policies and procedures on the ITC.

*e. FTIG Fire Department:* Responsible for fires and medical emergencies on the installation. FTIG Fire Department can be contacted at 717-861-2111, Building 5-117. In support of the Range Safety Program, the FTIG Fire Department will-

(1) Assume joint responsibility as Incident Commander for all fires on the ITC.

(2) Respond to all medical incidents as a Department of Health licensed Quick Response Service (QRS) medical unit.

(3) Act as Incident Commander for any hazardous material (HAZMAT) spills.

(4) Coordinate any air medical evacuation (MEDEVAC) requirements.

*f. Bureau of Environmental Management:* The Bureau of Environmental Management (BEM) is responsible for the proper management of natural resources on the installation as well as compliance with applicable environmental laws and regulations. The BEM can be contacted at 717-861-8181, Building 0-11. In support of the Range Safety Program, the BEM will-

(1) Establish and publish Fire Danger Ratings.

(2) Assume joint responsibility as Incident Commander for all fires.

(3) Coordinate with the Integrated Training Area Management (ITAM) office and Range Operations for the sustained, long-term use of Army training areas.

(4) Manage the installation's Outdoor Recreation Program IAW FTIG Regulation 215-2.

(5) Oversee all petroleum, oils, and lubricant (POL) spills to include refuge of weapons cleaning supplies.

*g. The Battalion and/or Squadron Commander:* Battalion and/or squadron commanders will-

(1) Provide training in range safety IAW AR, DA PAM and NGR 385-63 and certify that training by use of the FTIG Range Safety Certification Roster (RSCR).

(2) Ensure OICs and RSOs have completed the installations Range Safety Certification Program (RSCP) training and have a valid Range Safety Card issued by Range Operations.

(3) Ensure OICs and RSOs remain present on all training locations throughout the ITC.

(4) Appoint at least one individual as the unit Safety Officer; this appointment must be in writing and provided to the SSO.

(5) Ensure that DD Form 2977, Deliberate Risk Assessment Worksheets (DRAWs), are completed on the most current form and reviewed, approved and signed in accordance with Army Techniques Publication (ATP) 5-19.

*h. Unit Commanders:* Unit commanders will-

(1) Ensure compliance with this publication, AR 385-63, DA PAM 385-63 and NGR 385-63, applicable Army and component publications and standard operating procedures (SOP) for facilities, safe training and weapons system within the command.

(2) Ensure all personnel within the command are briefed on and comply with installation procedures and safety requirements including required personal protective equipment (PPE).

(3) Designate an OIC, RSO and medic for each hazardous training event IAW Table 1-1 of this publication.

(4) Ensure OICs and RSOs are certified in accordance with the unit and installation's RSCP.

*i. Officer in Charge (OIC):* The Officer, Warrant Officer (WO), or NCO responsible for personnel conducting live-fire or training activities on the ITC. The OIC will be in an authorized grade IAW Table 1-1 below. The OIC will not be assigned additional duties while filling this role. The OIC will-

(1) Ensure he/she and all RSOs are listed on the RSCR, have valid FTIG Range Safety Card in their possession, and a signed DRAW is on-hand.

(2) Remain physically present at the training location until the facility is properly cleared or a change of OIC is conducted with Range Operations.

(3) Ensure proper medical coverage, IAW Chapter 2-4, is maintained at the training location.

(4) Ensure the following items are present at the training facility: Range Clearance Checklist, Range Inspection Checklist, a copy of this regulation, all applicable equipment, applicable training publications, and the training facility SOP.

(5) Maintain communications with Range Operations IAW Chapter 2-3.

(6) Be knowledgeable on the training facility location, safe routes in and out and the limits and security of the danger areas for the weapons/ordnance being used. The OIC will make the final determination that it is safe to commence training.

(7) Ensure required barriers are secured and the necessary guards are in place.

(8) Conduct a safety and information brief for all personnel prior to beginning training that will cover, at a minimum, the

following information: UXOs, PPE requirements, environmental conditions, weapon handling and malfunction procedures, ammunition handling and malfunction procedures, locations of the left and right limits of the range, the importance of firing within the assigned lane, the installation boundaries, the importance of not firing over the mountains (Blue Mountain along Range Road and Second Mountain in the Training Corridor), the command Check-Fire Freeze, the installation's ammunition amnesty program (AAP), and aircraft encroachment procedures.

(9) Ensure a red flag is displayed during daytime live-fire operations and a red light/beacon is illuminated during limited visibility live-fire operations.

(10) Ensure all training is conducted IAW this regulation and the facility SOP or IAW a Non-Standard Training Request (NSTR) approved by the RMA IAW Chapter 2-17.

(11) Immediately notify Range Operations of any situation at the training facility affecting command and control, accidents or incidents, injuries (regardless of severity) and weapon/ammunition malfunctions that cannot be corrected at the operator level through immediate or remedial actions.

(12) Personally supervise procedures for misfires, hang fires, and cook-offs and initiate a Malfunction Report (DA Form 4379) as appropriate.

(13) Complete a Statement of Acknowledgement (see Figure 1-1) prior to beginning hazardous training.

(14) Inspect the training facility prior to use for cleanliness and functionality; the OIC will notify Range Operations of any discrepancies.

*j. Range Safety Officer (RSO):* Personnel assigned as RSOs are responsible for the safe conduct of training, will meet the grade requirements IAW Table 1-1, and will not be assigned additional duties. RSOs will:

(1) Ensure weapons are at the proper firing location and authorized ammunition, explosives, training devices, or other ordnance are used.

(2) Ensure firing settings and limits are properly set and verified.

(3) Identify and control one entry/exit point to the firing line.

(4) Inspect all weapon systems prior to live-fire to ensure safe operation.

(5) Check visible parts of the Impact Area, back blast area and the down range danger area for personnel or equipment prior to live-fire.

(6) Ensure placement of guards and/or barriers denying access to the impact and down range areas.

(7) Prevent improper handling of weapons and ammunition.

(8) Ensure appropriate PPE is worn by all personnel on the facility as required per the training event.

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

(10) 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.

(11) Ensure adherence to all safeguards listed on the units DRAW.

(12) Ensure all personnel fire within their assigned lanes.

(13) Upon completion of firing, verify weapons are clear to the OIC.

(14) Immediately notify OIC of any misfires, hang fires, or cook-offs.

(15) Complete a Statement of Acknowledgement (see Figure 1-1) prior to beginning hazardous training.

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**Table 1-1  
OIC/RSO minimum rank requirements**

Weapon System/Activity	Min. requirements <sup>1</sup>		
	OIC	RSO	MEDIC <sup>2</sup>
Non-Hazardous Training Rappelling <sup>3</sup>	E5	NA	CLS
Practice hand grenades • 40mm practice, Illumination and signaling • Sub-caliber training devices • Laser devices • Firing devices • Simulators, trip flares, and all other forms of pyrotechnics • CCMCK and Simmunition • Small arms and machineguns <sup>4</sup> • Chemical agents and smoke <sup>5</sup>	E6	E5	CLS
Mortars <sup>6</sup>	E6	E6	68W
Aerial gunnery and air defense weapons • Live grenades, grenade launchers, and grenade machineguns • Demolitions • Tank and fighting vehicle cannons • Field Artillery <sup>7</sup> • Direct fire antitank rockets and missiles • CALFEX/CAX using outside fire support <sup>8</sup> • Squad Live-fire exercise or greater <sup>9</sup>	E7	E6	68W

Notes:

<sup>1</sup>This table is not all encompassing, certain training activities require additional personnel outside of OIC's and RSO's. Contact Range Operations for additional guidance.

<sup>2</sup>See Chapter 2-4 for equipment requirements per medic support level.

<sup>3</sup>If OIC is not a school house certified Rappel Master, OIC must be E7 or greater who is trained in risk mitigation and rappelling. IAW Para. 2-2 a FTIG Form 350-6 must be submitted to Range Operations prior to rappelling operations.

<sup>4</sup>Civilians in the grade of GS-07 or above may act as OIC, and GS-05 or above for RSO. Both OIC and RSO must have completed a pistol and rifle course by the NRA, or possess the equivalent certification (Act 120, U.S. Pistol Association, etc.).

<sup>5</sup>Marine 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.

<sup>6</sup>RSO for Marine Corps can be an E-5 for mortar training activities.

<sup>7</sup>Use of E7s as OIC is authorized by the Garrison Commander. Either the battery executive officer or platoon leader normally performs duties of the OIC.

<sup>8</sup>For battalion or larger CALFEX/CAX, OIC will be a field grade commissioned officer, exercise RSO will be E7 or above.

<sup>9</sup>For the Army, when conducting maneuver or shoot house training using force on force training ammunition (UTM or CCMCK) only, OIC will be E6 or above and RSO will be E5 or above. All LFSH training requires IAW Para. 2-2 a FTIG Form 350-6 on file with Range Operations.

**Fort Indiantown Gap Range Control**  
Range Officer in Charge / Range Safety Officer  
Statement of Acknowledgement

Reference FTIG Regulation 350-2, AR 385-63, AR 385-10.

I, \_\_\_\_\_, the assigned OIC of \_\_\_\_\_ acknowledge that I have read and understand FTIG Regulation 350-2 and the Range SOP. I have read and have with me the applicable Field Manuals and Technical Manuals that relate to the training events I am conducting.

The following list is the stated responsibilities of the RNOIC. As the assigned OIC, I will initial after each of the below items.

1. All RSOs and I have a valid FTIG Range Safety Card and have a completed and approved risk assessment in our possession. \_\_\_\_\_
2. I, the RSO, and the required medical coverage, will remain here during all hazardous training activities. \_\_\_\_\_
3. I am accountable for all range facility equipment and keys. \_\_\_\_\_
4. Upon occupation of this training facility, I will establish radio communications with Range Operations, and ensure that it is maintained and monitored on dedicated equipment until given a clearance/departure time and code from Range Operations. I will cease training if I lose communications with Range Operations. \_\_\_\_\_
5. I, and the RSO, know the range facility location, safe routes in and out, and the limits for the weapons being used. I will notify Range Operations and receive permission to use weapons systems, ammunitions, explosives, and pyrotechnics before their use. \_\_\_\_\_
6. Prior to commencing hazardous training, I will ensure that all personnel receive a safety briefing that covers (at a minimum) UXOs, hearing protection use, seasonal warnings, weapons and 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", and the installation's program on ammunition amnesty (AAP) and ammunition found on post AFOP). \_\_\_\_\_
7. I will ensure that 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 and the red flag/light are displayed on the flag pole. Range Operations will be notified of all cease fires that will exceed 30 minutes. \_\_\_\_\_
9. I will immediately notify Range Operations of any serious or unusual situation that occurs on the range, including all accidents and weapons/ammunition malfunctions. \_\_\_\_\_
10. I will personally supervise procedures for misfires, hang fires, and cook-offs. \_\_\_\_\_
11. I understand that this list is not all inclusive. I am responsible for safe training at this location and will take whatever actions necessary to ensure safety is an integral part of this training activity. \_\_\_\_\_

\_\_\_\_\_  
OIC Signature                      Date                      Printed name of OIC

Safety Officer Statement. I have read the above OIC requirements. I will support the OIC in maintaining a safe training environment. **I understand that my only assigned duty here is to maintain safety.**

\_\_\_\_\_  
RSO Signature                      Date                      Printed name of RSO

**Figure 1-1 Statement of Acknowledgement**

Note: Digitally available in the RFMSS library and published in all Facility SOPs

**1-6. Installation Resources**

*a. Class I (Subsistence/Rations):*

(1) FTIG supports all units that train on the installation, regardless of branch or component. Rations available include Fresh Meal Kits, Shelf Stable Meals, Rapped Prepared Meals, "A" rations and catering.

(a.) PAARNG: contact USPFO Food Services at 717-861-8554/8736, Building 0-48. For catered meals contact G4 at 717-861-6878, Building 0-48.

(b.) Non-PAARNG: contact Valley Foods for food services and catering at 717-865-7901.

(2) FTIG has more than 20 Army approved dining facilities equipped with refrigerators, ranges, ovens, grills, ice machines, flat top griddles, coffee pots and cold food containers. Additional equipment may be drawn from the Training Center Logistical Warehouse at 717-861-2276, Building 11-91.

(3) FTIG has two, high flow water points located at in Area 14, at 18T UK 64495 76587, and Area 4, at 18T UK 69141 77143. High flow water points are winterized on or about November through March, during this time, the FTIG Fire Department can provide units with potable water; contact the FTIG Fire Department at (717) 861-2111.

(4) FTIG Community Club offers meal support to all units who train on the installation. Advanced notice of 3 weeks is required. FTIG Community Club can be contacted at 717-861-2450, Building 9-65.

*b. Class II (Expendables):*

(1) The Training Center Logistical Warehouse provides Class II services to all units that train on the installation, regardless

of branch or component, this includes acquisition of cots, linen, cleaning supplies, food service items, as well as the coordination in acquiring portable latrines and gray water disposal containers. The Training Center Logistical Warehouse can be contacted at 717-861-2276, Building 11-91.

(a.) PAARNG: responsible for providing their own Class II items and must have a DA Form 1687 and Assumption of Command orders on file.

(b.) Non-PAARNG: require a MIPR to be in place 15 days prior to draw date of resources.

*c. Class III (Fuel and POL):*

(1) FTIG provides Class III services to all units that train on the installation, regardless of branch or component. Location of Fuel Service Points are listed below. For further information, contact USPFO Supply and Services Division at (717) 861-8724, Building 0-48.

(a.) Bulk JP8, Aviation Flight Facility, for location and procedures contact the State Army Aviation Offices (SAAOs) Fuel Distribution Section at (717) 861-8957.

(b.) AREA 6 Fuel Point, Building 6-99, MOGAS and JP8, FUELMaster systems available 24/7.

(c.) AREA 10 Fuel Point, Building 10-132, JP8, FUELMaster systems available 24/7.

(2) POL must be provided by the unit.

*d. Class IV (Construction and Barrier Materials):* Units must provide their own Class IV materials.

*e. Class V (Ammunition)*

(1) The Ammunition Supply Point (ASP), equipped with an Ammunition Holding Area (AHA), provides Class V services for the installation. The ASP can be contacted at 717-861-2195/2014, Building 25-39.

(2) Additional ammunition policies and procedures are found in Chapter 3 of this regulation.

*f. Class VI (Personal Items):*

(1) The Post Exchange (PX) offers a majority of personal demand items. The PX can be contacted at 717-861-2714/2058/2469, Clothing and Sales can be contacted at 717-861-2976, both are located at Building 9-120.

(2) The Installations United Service Organization (USO) facility may be able to assist with some items. The USO can be contacted at 610-613-1890, Building 13-190.

*g. Class VII (Major End Items):*

(1) The Transportation Motor Pool Services (TMP) provides GSA vehicles for official government business. A MIPR is required 90 days out. For current rates, availability and additional information the TMP can be contacted at 717-861-8593 Building 11-6.

(2) The United States Property and Fiscal Office (USPFO) Transportation Branch assists with freight movements, container management, convoy requests, special hauling permits, contracts, commercial transportation and more. USPFOs Transportation Branch can be contacted at 717-861-8301, Building 11-67.

*h. Class VIII (Medical):*

(1) The FTIG Medical Detachment provides medical services to PAARNG Soldiers, as well as support to all units going through the mobilization process at FTIG. Services include immunizations, annual medical requirements such as periodic health assessments (PHA), vision screening, HIV draws, and hearing and dental exams. The Medical Detachment is the medical records custodian for all PAARNG Soldiers. The Medical Detachment can be contacted at 717-861-2769, Building 4-204. Call 717-861-6537 for medical records.

(2) The FTIG Troop Medical Clinic (TMC) is a satellite facility of Dunham Army Health Clinic. The TMC serves ages 3 to 65. Priority is given to Active Duty Soldiers, Soldiers on Annual Training or Soldiers in a 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 TMC can be contacted at 717-861-2091, Building 4-114.

*i. Class IX (Repair Parts):*

(1) Units training on FTIG who require Class IX repair parts are required to establish a WBS/MIPR with the JFHQ G4-SSMO in order to acquisition parts thru a supporting TDA maintenance facility. The JFHQ G4-SSMO can be contacted at 717-861-8592, Building 0-47.

*j. Information Management (PAARNG G6):* The G6 provides services to the PAARNG as well as all units that train on the installation. There may be limitations based off branch/component and availability.

(1) The Future Plans Division is responsible for customer engagement, future planning, network engineering, emergency communications as well as Continuity of Operations Program (COOP). The Future Plans Division can be contacted at 717-861-8252, Building 11-74.

(2) The Infrastructure Division is responsible for NIPR/SIPR Network administration, system administration, PKO administration, database administration and desktop phones. The Infrastructure Division can be contacted at 717-861-2287, Building 11-74.

(3) The End User Services Division is responsible for the Service Desk, NIPR/SIPR accounts, user devices, mobile devices, VTC/Audio Conferencing, mail services, reproduction and visual information. The End User Services Division can be contacted at 717-861-2899, Building 11-74.

(4) The Protection Division is responsible for cyber security, frequency management, communication security, and records holding area. The Protection Division can be contacted at 717-861-2314, Building 11-74.

*k. Billeting:* Billeting offers a variety of lodging and support buildings to meet the needs of all units that train on the installation. Billeting can be contacted at 717-861-2512/2540, Building 11-7.

*l. The Training Support Center (TSC):* The Training Support Center manages and executes the Soldier Training Support Program. They provide a wide range of Training Aids that support Warrior Tasks and MOS proficiency by the use of URM, Combative, IED/UXO, EPW, Detainee Ops., Medical, I.M.I.L.E.S., OPFOR clothing, Land Navigation, MOS/Branch specific devices, Marksmanship and equipment simulators. The Training Support Center can be contacted at 717-861-2920/9775, Building 5-239, See Chapter 9 for additional capabilities.

*m. Range Maintenance:* The purpose of Range Maintenance is to regenerate training capabilities and to preserve the capital investment in range systems and equipment over time to enable training and provide the readiness to execute full spectrum operations within a training environment. Range Maintenance can be contacted at 717-861-2852, Building 10-66.

*n. Directorate of Public Works:* The mission of Directorate of Public Works (DPW) is to provide quality facilities by building, maintain, servicing and repairing buildings and structures, roads, ranges, airfields, and utilities for service members and civilian who train and work on the installation. DPW can be contacted at 717-861-8870/9349, Building 11-64.

*o. Unit Training Equipment Site:* The Unit Training Equipment Site (UTES) offers Soldiers training at the installation operator assistance and maintenance support for the vehicles, subsystems, and weapons provided. Prior coordination and approval from staff is required to ensure capabilities are thoroughly utilized and required assets are available. UTES can be contacted at 717-861-8834, Building 12-140.

### **1-7. Range scheduling**

The Scheduling sections mission is to process training requests by determining what resources are available and when based off adjacent training, danger areas from air and ground training and required sustainment and modernization operations on the ITC. A request for resources is not a reservation. Once a request is reserved, a confirmation letter is sent confirming reservation.

*a. Civilian Requests:* Use of FTIGs ranges and resources will be approved or denied by the Garrison Commander based on the organizations ability to meet the requirements and responsibilities found in this regulation and AR and DA PAM 385-63. Civilian organizations to include OGA's requesting use of FTIG assets will:

(1) Submit a Non-DOD Request for Facilities and Resources, FTIG Form 350-4 (see Figure 1-2), in lieu of an electronic request through the online Range Facility Management Support System (RFMSS).

(2) Complete a Civilian Request for the Use of PAARNG Training Center Facilities, FTIG Form 350-11 (see Figure 1-3) and submit to the Range Management Authority.

(3) Be prepared to pay in advance for all facilities, services, and support prior to training.

(4) Provide a certificate of insurance in the amount of \$1,000,000.00 for liability coverage of its members.

(5) Complete and submit General Release Statements (see Figure 1-4) to Range Operations prior to training start date.

*b. Request to Train with Animals:* All requests to train with animals on FTIG will be submitted to the RMA NLT 45 days prior to training. The RMA will consult with the Regional Branch Veterinarian at Dover Air Force Base who administers military veterinary matters in eastern PA, MD, and DE. Requirements stipulated by the Dover Branch Veterinarian will be communicated by the RMA to the requesting unit and all requirements must be met in order to train at FTIG.

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## NON-DOD REQUEST FOR FACILITIES AND RESOURCES

For use of this form, see FTIG REG 350-2, the proponent agency is FTIG Range Operations

<b>INSTRUCTIONS:</b> Send completed form electronically, to the below email, or in person at Building (BLDG) 11-9. <b>EMAIL:</b> <a href="mailto:rg.pa.cearng.mbx.rng-ste-range-scheduling@mail.mil">rg.pa.cearng.mbx.rng-ste-range-scheduling@mail.mil</a> or contact 717-861-2204 for assistance.										
<b>1. ADMINISTRATIVE DATA (Completed by Range Operations)</b>										
<b>a. Log Number</b>			<b>b. Date Received</b>			<b>c. Processed By</b>				
<b>2. ORGANIZATION INFORMATION</b>										
<b>a. Official Name:</b>										
<b>b. Primary Point Of Contact</b>					<b>c. Secondary Point Of Contact</b>					
Name		Phone		Email		Name		Phone		Email
<b>d. Mailing Address (Street Address, City, State, Zip Code)</b>						<b>e. Non-Profit/For-Profit</b>		YES		NO
						Is Your Organization For-Profit?		<input type="checkbox"/>		<input type="checkbox"/>
<b>f. Number Of Personnel That Will Be On The Installation?</b>			Male		Female		Total			
<b>3. TRAINING DATES</b>										
<b>a. Advanced Party Arrival Date And Number Of Personnel</b>					<b>b. Main Body Arrival Date</b>			<b>c. Main Body Departure Date</b>		
<b>4. TRAINING CENTER LOGISTICAL WAREHOUSE SUPPORT REQUESTED</b>										
<b>a. Linen Requirements</b>		Blankets		Sheets		Pillows		Pillow Cases		
<b>b. Dining Facility Equipment Required</b>		Type		Quantity		Type		Quantity		
<b>c. Expendable Items (Cleaning supplies, equipment, paper products, etc.)</b>		Type		Quantity		Type		Quantity		
<b>5. MEAL SUPPORT (Initial next to the request)</b>										
Organization Requires Support From The FTIG Community Club					Organization Will Provide Meal Support Without Support From FTIG					
<b>6. RECREATION SUPPORT REQUESTED (Initial next to the below resources requested)</b>										
Request use of Fort Indiantown Gap Post Exchange (PX). Organizations will provide a by-name roster of all personnel that are requesting to utilize Post Exchange to the Store Manager. Questions can be directed to the Post Exchange Store Manager at 717-861-2058, BLDG 9-120.										
Request use of Blue Mountain Sport Arena. Organizations will provide a by-name roster of 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 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, BLDG 4-117. Cost is subject to change without notice.										
Request use of FTIG Community Pool. Organizations will provide a by-name roster of all personnel that are requesting to utilize the facility to the FTIG Pool Manager prior to using the facility. Participants must be under proper adult supervision at all times. There is a cost per person per day to utilize the pool and an additional cost per day for life guard fees payable to the "FTIG Pool". Questions can be directed to the Blue Mountain Sport Arena Manager at 717-861-2711, BLDG 4-117. Cost is subject to change without notice.										

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, BLDG 4-117.														
Installation Tours: FTIG offers tours on a very limited basis due to mission constraints. Tour request are accepted for 8 or more, and the group must provide their own transportation. To schedule a tour, contact 717-861-2464.														
Military Museum: The Pennsylvania National Guard Military Museum is located at BLDG T-8-57 and is open Monday and Friday from 10:00 AM to 4:30 PM. 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. It is the organizations responsibility to coordinate directly with the Military Museum for private tours.														
Eastern ARNG Aviation Training Site (EAATS) Facility and Simulation Device Tours: Every effort will be given to resource and accommodate the request 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's 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 (0900-1700, except holidays). Approvals for tour request outside of the normally scheduled times will be by exception only. It is the organizations responsibility to coordinate directly with EAATS for private tours. Questions can be directed to EAATS Operations Officer at 717-861-9875, or 717-861-9103.														
State Displays: FTIG is open to the public and there are several state display that can be viewed at any time. Display include: 56 <sup>th</sup> Infantry Divisions Monument, 28 <sup>th</sup> Infantry Divisions Monument, 3 <sup>rd</sup> Armored Division Monument, Battle of the Bulge Monument, 2 <sup>nd</sup> Brigade Combat Team Fallen Warrior Memorial, 40 & 8 Boxcar, Nike Missile, M80 A3 Tank, and several different types of aircraft. All static display are centrally located along Fisher Avenue in front of the Department of Military and Veterans affairs and with walking distance to each other.														
<b>7. TRAINING AREAS AND TRAINING FACILITIES (LRC, GAS CHAMBER, OP, OBSTACLE COURSE, ETC.)</b>														
Training Area		Training Event		Start Date		Time		End Date		Time	Daily Or Overnight	Number Of Personnel		
<b>8. RANGES</b>														
Range		Training Event		Start Date		Time		End Date		Time	Ammunition	Weapon	Daily Or Overnight	Number Of Personnel
<b>9. SIMULATORS (EST, MCCTT, ODS, VCOTT, ETC.)</b>														
Facility		Training Event		Start Date		Time		End Date		Time	Daily Or Overnight	Number Of Personnel		
<b>10. ADDITIONAL INFORMATION</b>														
1) FTIG FORM 350-4 will be submitted NLT 30 working days prior to requested training dates. Requests received after this suspense will be returned without action. A separate FTIG FORM 350-4 will be submitted for each training period.														
2) Any agency; Federal, State, Municipal or civic, 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.														
3) It is the organizations responsibility to ensure that appropriate coordination and supporting documents are properly prepared and either attached to this form or previously submitted.														
4) Portable toilets will be directly coordinated with FTIG Training Center Logistical Warehouse, BLDG 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 toilets.														
5) Organizations will be charged for linen use and are responsible to coordinate directly with the FTIG Training Center Logistical Warehouse.														
6) Organizations will be charged a fee for cleaning supplies and are responsible to contact the FTIG Training Center Logistical Warehouse no later than 15 working days prior to requested dates(s). Organizations will be charged a fee for missing and/or broken equipment.														
7) All payment for FTIG Training Center Logistical 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 FTIG Training Center Logistical Warehouse, BLDG 11-91.														

Note: Continued on next page



8) Organizations are responsible to contact and coordinate with the FTIG Community Club to obtain meal support and payment arrangement. Community Club requires an advance notice of three weeks for coordinate of meal support. Questions can be directed to the Community Club.

9) Simulator request will be coordinated with the Training Support Center Ground Simulations Office.

10) Organizations must have and be knowledgeable of the FTIG Regulation 350-2. Copies can be obtained in person or by email by contacting Range operations.

11) Organization conducting live-fire must have the appropriate manuals that correspond to that specific weapon system and type training. Questions can be directed to Range Operations.

12) All Range Officer in Charge (OICs) and Range Safety Officers (RSOs) must have a valid FTIG Range Safety Card, obtained through attend the Range Safety Certification Program training. Training is available in person, Monday, Wednesdays and Fridays at 3:00 PM in BLDG 11-11. Training will not be conducted on Federal Holidays.

13) Organizations conducting live-fire will submit a Range Safety Certification Roster signed by their second line supervisor or higher.

14) Organizations must have medical personnel and appropriate support equipment for all training in accordance with FTIG Regulation 350-2.

15) 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 range and training areas, Monday through Fridays. No training facilities will be available during Range Maintenance periods. This does not include Training Simulators.

16) 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 departing FTIG. Payment can be made in the form of a check or money order payable to "Commonwealth of Pennsylvania". Check or money order will be paid directly to FTIG Training Center, Attention Range Scheduling; BLDG 11-9. Questions can be directed to Range Scheduling, BLDG 11-9.

17) Organizations are responsible to complete a non-department of defense (DOD) briefing prior to training. Personnel attend 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. Organization are responsible to coordinate with the State Safety Office (SSO) to ensure the non-DOD brief is completed. Questions can be directed to the SSO.

18) Organization conducting training Monday through Friday must attend a daily coordinate briefing. The daily coordination briefing is held daily at 7:30 AM in BLDG 11-11. Organizations conducting training Saturday through Sunday must attend a weekend coordination briefing. The weekend coordination briefings are held Friday at 1:30 PM at BLDG 11-11. Failure to send a decision-making representative to these briefing may result in cancellation of all training at FTIG during that specific timeframe.

19) All medical emergencies on ranges and training areas will immediately be reported to Range Operations with the following information: Name, Type Injury, Gender and treatment. Range Operations in turn will dispatch appropriate emergency response services.

20) In the event of personnel sustaining serious injury as determined by the originations medic, while in the cantonment area, emergency medical ambulance service is available by dialing 911 from a post phone only.

21) Individuals utilizing resource at FTIG must complete a Release and Hold Harmless Agreement. A parents/guardians signature is required for individuals under the age of eighteen. Release and Hold Harmless Agreements will be sent to the organization primary point of contact along with the resource confirmation. Completed forms are to be return to Range Operations at BLDG 11-9.

22) Organizations conducting training are required to have radio communication with Range Operations in accordance with the FTIG Regulation 350-2. Range Operations can provide radios on a first come first serve basis. Radios are available to be hand received at BLDG 11-9. Issued radio are not to be use d for organizations internal communication. Organizations will be monetarily charged for destruction or loss of issued equipment.

**Installation Contact Information**  
 The Training Center Logistical Warehouse: 717-881-2276, BLDG 11-91, fax 717-881-2018  
 FTIG Community Club: 717-881-2450, BLDG 9-85, fax 717-881-2024  
 The TSC Ground Simulations Office: 717-881-9775, BLDG 5-339  
 FTIG Range Scheduling: 717-881-2742/2204, BLDG 11-9, fax 717-881-2832  
 FTIG Range Operations: 717-881-2152/2153, BLDG 11-9  
 Blue Mountain Sports Arena: 717-881-2711, BLDG 4-117  
 EAATS: 717-881-9975/9103  
 FTIG Military Museum: 717-881-2402, BLDG T-9-57

**11. SUBMITTERS SIGNATURE** (Signing below certifies the completeness of this form and the complete understanding of the information provided in Block 10.)

Name	Date	Signature

FTIG FORM 350-4, MAY2021

PREVIOUS EDITION IS OBSOLETE

**Figure 1-2 Non-DOD Request for Facilities and Resources**  
 Note: Digitally available on the RFMSS library

<b>CIVILIAN REQUEST FOR THE USE OF PAARNG TRAINING CENTER FACILITIES (NON-AVIATION)</b>					
<small>For use of this form, see FTIG REG 350-2, the proponent agency is FTIG Range Operations</small>					
<b>PURPOSE:</b> This form is used to request available ranges, training areas, simulations and/or buildings for use by non-Department of Defense (DoD) organizations. This information is required to evaluate the event for appropriateness and compliance with DoD policies and for coordination with the units involved. Once completed, email to <a href="mailto:ng.paarng.mbx.tmg-ste-range-scheduling@mail.mil">ng.paarng.mbx.tmg-ste-range-scheduling@mail.mil</a> or contact 717-861-2099 for assistance.					
<b>1. EVENT DATA</b>					
a. Resources Requested (e.g. ranges, training areas, buildings/barracks, simulators, etc.)	b. Dates Of Event		c. Time Of Event		
	TO		Start	End	
	d. Number Of Personnel		e. Media Coverage (check all that apply)		
			Local	Regional	National
f. VIP Attendance: YES <input type="checkbox"/> NO <input type="checkbox"/>					
g. Program (Describe program theme and objective, audience/civic makeup and the purpose)					
h. Has The DoD Supported This Event In The Past? (if so, specify previous military support.)					
i. Is There Any Charge? (e.g. admission, parking, etc., if so specify)			j. Is This Event Being Used to Raise Funds for Any Purpose? (Specify how funds will be distributed.)		
k. Will Admission, Seating, and All Other Accommodations and Facilities Connected with This Event Be Available to All Persons Without Regards to Race, Creed, Religion, Color, Sex, or National Origin? (Check the appropriate box.)					YES <input type="checkbox"/> NO <input type="checkbox"/>
<b>2. SPONSORING ORGANIZATION DATA</b>					
a. Name And Website For Sponsoring Organization					
<small>(Check the appropriate box for each item)</small>					
b. Is The Sponsoring Organization a Civic Organization? (E.g. a non-governmental organization primarily focused on improving broad based communities at large.)					YES <input type="checkbox"/> NO <input type="checkbox"/>
c. Does The Event Have The Official Backing Of The Local Government?					
d. Does The Sponsoring Organization Exclude Any Person From Its Membership Or Practice Any Form Of Discrimination In Its Functions Based On Race, Creed, Color, Sex Or National Origin?					
e. Do Any of the Following Apply to Your Event? (Check all that apply)					
		Political Event <input type="checkbox"/>	Religious Event <input type="checkbox"/>	Ideological Event <input type="checkbox"/>	
<b>3. SPONSORING ORGANIZATION REPRESENTATIVE</b>					
a. Name			b. Address (Street, City, State, ZIP Code)		
c. Primary Telephone		d. Alternate Telephone	e. Email Address		
<b>4. CERTIFICATION</b>					
I am acting on behalf of the sponsoring organization and certify that the information provided above is complete and accurate to the best of my knowledge. I understand that representatives from the military services will contact me to discuss arrangements and costs involved prior to final commitments, or to inform me of their inability to support this event. I also understand that operational commitments must take priority and can preclude a schedule appearance at an approved public activity.					
f. Signature Of Sponsoring Organization Representative		g. Date Signed		h. Print Name And Title	
<b>5. GARRISON AUTHORIZATION</b>					
a. Signature Of Training Center Representative			b. Date Signed		c. Print Name And Title
Able To Support <input type="checkbox"/>	Unable To Support <input type="checkbox"/>	Remarks:			

FTIG FORM 350-11, MAY2021

PREVIOUS EDITION IS OBSOLETE.

**Figure 1-3 Civilian Request for the Use of PAARNG Training Center Facilities**

Note: Digitally available on the RFMSS library

**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 Ordinance (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: \_\_\_\_\_

**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: \_\_\_\_\_

**Figure 1-4 FTIG General Release Statements**  
Note: Digitally available on the RFMSS library

*c. Military Requests:* Military Organizations will submit request electronically through the RFMSS scheduling interface at <https://rfmss.belvoir.army.mil> as the primary means of requesting ranges, training areas training facilities and logistical support.

*d. Prioritization of Resources:*

(1) In order to minimize conflicts and ensure maximum use of limited resources, FTIG has established the following Priority List.

**Table 1-2**  
**Scheduling priority timeline and suspense windows**

FTIG Priority Matrix	Priority Level			
	Priority 1	Priority 2	Priority 3	Priority 4
	Mobilizing units <sup>1</sup> TRADOC School Assigned Mission Units AT Units	All IDT for ARRM aligned Units	Non-ARRM aligned ARNG, USAR & other Service Reserve Units	ALL Other DOD, OGA and Civilian organizations
Training Dates	Request Submission Dead Line			
<b>1<sup>st</sup> Quarter</b> (OCT-DEC)	1 <sup>st</sup> Monday in APR	1 <sup>st</sup> Monday in APR	1 <sup>st</sup> Monday in APR	1 <sup>st</sup> Monday in APR
<b>2<sup>nd</sup> Quarter</b> (JAN - MAR)	1 <sup>st</sup> Monday in JUL	1 <sup>st</sup> Monday in JUL	1 <sup>st</sup> Monday in JUL	1 <sup>st</sup> Monday in JUL
<b>3<sup>rd</sup> Quarter</b> (APR - JUN)	1 <sup>st</sup> Monday in OCT	1 <sup>st</sup> Monday in OCT	1 <sup>st</sup> Monday in OCT	1 <sup>st</sup> Monday in OCT
<b>4<sup>th</sup> Quarter</b> (JUL - SEP)	1 <sup>st</sup> Monday in JAN	1 <sup>st</sup> Monday in JAN	1 <sup>st</sup> Monday in JAN	1 <sup>st</sup> Monday in JAN

<sup>1</sup>Mobilizing units must have an approved training plan by the T10 HQ. For example, an ARNG or USAR unit must have training plan approved by First U.S. Army post-Multi-Component Joint Assessment.

(a.) **Priority 1:** Mobilizing units with an approved training plan from their attendance at the Multi-Component Joint Assessment with deployment date listed in the Communications tab on RFMSS. Training and Doctrine Command (TRADOC) School; Units reporting training readiness against an Assigned Mission; and Annual Training units. Army Range Requirements Model (ARRM) aligned units will be given priority over Non-ARRM aligned units.

(b.) **Priority 2:** All Inactive Duty for Training (IDT) for ARRM aligned units: ARNG, ANG, USAR, USNR, and USMCR. Priority is given to the unit that has a complete request submitted first.

(c.) **Priority 3:** All Non-ARRM aligned National Guard, Army Reserve, and other Service Reserve Units.

(d.) **Priority 4:** All other DOD units, regardless of branch or component, ROTC/JROTC, other government agencies (OGAs) and civilian organizations. Order of precedence as follows, DOD, other federal agencies, State agencies, Local agencies, and Non-Government agencies.

(1) Organizations who fail to meet the time requirements in Table 1-2 will lose their priority status.

(2) Units must submit requests through their Chain of Command (COC); The Scheduling Department considers all submitted requests approved by COC unless otherwise instructed.

(3) In the event a unit submits a request IAW Table 1-2, but the COC approves later, the official request date will be considered the date of the COC's approval making the request late and thus losing priority status.

(4) Scheduling priority will go to the organization who meets the appropriate suspense date.

(5) Higher priority organizations will be resourced before lower priority organizations.

(6) Once Priority 4 organizations have been scheduled, all other requests will be processed according to the date they are received.

(7) 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 move previously scheduled training to a lower priority.

*e. RFMSS Access:* Personnel requiring access to RFMSS will contact the RFMSS Functional Administrator at 717-861-9353, Building 11-9. An individual specific username and password will be issued. All users will be provided an instruction sheet. The RFMSS Functional Administrator is available for onsite training upon request.

*f. RFMSS Fire Desks:* RFMSS is comprised of several Fire Desks. Those digital Fire Desks are the location in RFMSS in which units will make their request, they are listed below.

(1) *Strength Fire Desk:* Units will submit the total number of personnel and their training dates on the Strength Fire Desk, prior to submitting a request for any other resource. Failure to submit Facility Strength will result in all other request remaining in a pending status. Strength drives staffing, funding, resource support, modernization, maintenance and acquisition of ranges, training areas and logistical resources. Questions regarding Strength can be addressed to the FTIG scheduling department at Building 11-9, 717-861-2204.

(2) *Ranges and Training Areas Fire Desk:* Units will request ranges, training areas and/or facilities (i.e. gas chambers, simulation villages, etc.) and the Ranges and Training Areas Fire Desk. Request must include accurate dates, times and ammunition. Dates and times directly influence the Range Operations Fire Desk manning and the scheduling of sustainment operations around training; inaccurate, continuous operations will have a negative effect on the installations ability to support training. Questions regarding the Ranges and Training Area Fire Desk can be addressed to the FTIG Scheduling department at Building 11-9, 717-861-2204.

(3) *Billeting Fire Desk:* Buildings for housing, logistics and maintenance are scheduled through the Billeting Fire Desk.

Questions regarding the Billeting Fire Desk can be addressed to the FTIG Billeting Office at Building 11-7, 717-861-2512/2540.

(4) *Simulations Fire Desk*: Request for simulators, on or off the installation, will be made on the Simulations Fire Desk. Questions regarding the Simulations Fire Desk can be addressed to the FTIG Simulations Office at Building 5-239, 717-861-9775. See Chapter 9 for additional Training Support Center (TSC) information.

(5) *Medical Simulations and Training Fire Desk*: request for training and use of the Medical Simulations Training Center (MSTC). Questions regarding the Medical Simulations and Training Fire Desk can be addressed to the FTIG MSTC Office at Building 16-271, 717-861-9990.

g. *Changing a Request*: Units who need to alter their original requests (I.e. changing the date, time or resource) outside of two weeks from the start date of the Facility Strength will do so digitally on RFMSS. Units who need to alter their request within two weeks of their Facility strength start date will submit a Request Amendment, FTIG Form 350-5 (see Figure 1-5). Approval of alterations are contingent upon several factors including available airspace and other scheduled training events.

<b>REQUEST AMENDMENT</b>									
For use of this form, see FTIG REG 350-2, the proponent agency is FTIG Range Operations									
<b>INSTRUCTIONS:</b> Send completed form electronically, to the below email, or in person at Building 11-9. <b>EMAIL:</b> <a href="mailto:ng.pa.paarmg.mbx.trng-ste-range-scheduling@mail.mil">ng.pa.paarmg.mbx.trng-ste-range-scheduling@mail.mil</a> or contact 717-861-2204 for assistance.									
<b>1. ADMINISTRATIVE DATA (Completed by Range Operations)</b>									
a. Log Number			b. Date Received			c. Processed By			
<b>2. TRAINING AREAS AND RANGES FIRE DESK</b>									
a. Facility	b. Action (Add, Change, Cancel)	c. Training Event	d. Start Date And Time	e. End Date And Time	f. Overnight (Yes, No)	g. Number Of Personnel	h. Weapon And DODIC	Range OPS Comments	
<b>3. SIMULATIONS FIRE DESK</b>									
a. Simulator	b. Action (Add, Change, Cancel)	c. Training Event	d. Start Date And Time	e. End Date And Time	f. Overnight (Yes, No)	g. Number Of Personnel	Range OPS Comments		
<b>4. BILLETING FIRE DESK</b>									
a. Building Number Or Logistics Requirement	b. Action (Add, Change, Cancel)	c. Number Of Male Personnel	d. Number Of Female Personnel	e. Requested Start Dates And Times	f. Requested End Dates And Times	Billeting Action			
<b>5. STRENGTH FIRE DESK (Only used to change number of personnel, add within 30 days, cancel advance/trail parties or cancel strength completely)</b>									
a. Start Date	b. End Date	c. Action (Add, Change, Cancel) Ac	d. Number Of Male Personnel	e. Number Of Female Personnel	f. RFMSS RCNI	POTS Action			
<b>6. REQUESTER INFORMATION</b>									
a. Name		b. Signature			c. Phone		d. Date		

FTIG FORM 350-5, MAY2021

PREVIOUS EDITION IS OBSOLETE

**Figure 1-5 Request Amendment**

Note: Digitally available on the RFMSS library

h. *Reserved Request*: Once a request has been confirmed by the Scheduling Department, it will move into a Reserved Status. The Scheduling Department will send out a Confirmation Letter listing the resources reserved and provide applicable considerations that will benefit a unit in there planning (i.e. check fire times, required meetings, lane restrictions, etc.) Units will read and understand the Confirmation Letter for every request. Failure to do so will have impacts on training during execution. Facilities, ranges, or training areas that involve Non-Standard Training Requests (NSTR) will not be reserved until the RMA has approved the associated NSTR. See Chapter 2-17 for NSTR.

i. *Cancelling a Request*: Units will cancel unneeded resources in order to allow other units the opportunity to train or allow support elements access to restricted areas for maintenance and sustainment. Cancellations will be reported to Range Operations immediately. To cancel a request outside of two weeks from the start date of the Facility Strength, units will utilize RFMSS and follow up with a phone call to the Range Scheduling department at 717-861-2204. To cancel a request inside of two weeks, units will submit a Request Amendment, FTIG Form 350-5 (See figure 1-5) to Range Operations immediately.

j. *Conflicts*: Scheduling conflicts are based on worst case situations. Many conflicts can be resolved by use of different weapons and/or restricting firing fans. Therefore, organization must include accurate weapons and ammunition when submitting a request.

k. *Co-Usage*: In order to ensure all organizations, receive the facilities they require to conduct training, Range Operations

will suggest a Co-Use Agreement, FTIG Form 350-12 (see Figure 1-6). A Co-Use Agreement allows multiple units to occupy and/or utilize the same training area, facility or range. The reserved unit has the authority to approve or deny the agreement. The Co-Use agreement sets conditions and standards for both units to adhere to, informs the Range Operations Fire Desk who is responsible to conduct specific range responsibilities and provides contact information for both organizations. Co-Use Agreements will be completed prior to execution, as the requesting unit's reservation is void if the reserved unit does not agree to the terms of the arrangement.

CO-USE AGREEMENT									
For use of this form, see FTIG Regulation 350-2, the proponent agency is FTIG Range Operations.									
<b>Purpose/Instructions:</b> This form establishes a cooperative agreement on the shared usage of facilities on the installation. The reserved unit is the highest priority unit identified at the time of reservation IAW FTIG Regulation 350-2 Chapter 1-7. Units are highly encouraged, and at times, command directed to support co-use of facilities. Range Operations will initiate the co-use agreement by completing Section 1 and sending it to the points of contact for both the reserved unit and requesting unit. The requesting unit is responsible for conducting the necessary coordination and establishing the conditions of the co-use agreement. Both units will complete Sections 2 through 4, sign Section 5, and submit to Range Operations no less than 14 days prior to the dates identified in Section 1; failure to do so will result in the requesting unit's request being denied. The requesting unit's training request will be reserved upon Section 6 being completed by Range Operations.									
<b>1. ADMINISTRATIVE DATA (Completed by Range Operations)</b>									
Reserved Unit	Date Notified			Requesting Unit			Date Notified		
Facility	Date(s)		To	Time(s)		Start	End		
<b>2. REQUESTING UNIT POINT OF CONTACT</b>									
Name	Rank		Phone			Email			
a. Entire date range for the use of the facility (i.e. reserved unit may have the range schedule Monday through Friday, however a co-use is only required for Wednesday)				Type of Training					
Start	End		Number of Personnel						
<b>3. RESERVED UNIT POINT OF CONTACT</b>									
Name	Rank		Phone			Email			
a. Entire date range for the use of the facility: (i.e. reserved unit may have the range schedule Monday through Friday, however a co-use is only required for Wednesday)				Type of Training					
Start	End		Number of Personnel						
Able to Support					Unable to Support				
<b>4A. CO-TRAINING</b> (Co-training is defined as one unit taking responsibility of the facility, training and safety IAW the Range SOP and FTIG Regulation 350-2. Example: Reserved unit conducts range operations while the requesting unit falls under their training, or vice versa; this is typical when the smaller element has few personnel and only requires the facility for a limited time. If the unit in charge completes training and departs, the remaining unit must have the ability to take charge of the facility IAW the Range SOP and FTIG Regulation 350-2.)									
a. Will co-training be conducted? (If yes, list the unit in charge and proceed to section 5) (If no, proceed to section 4B)				YES	NO	b. Unit in Charge			
<b>4B. TRAINING SEPARATELY</b> (Requires both units to meet all standards in the Range SOP and the FTIG Regulation 350-2; this includes, but is not limited to, occupation, entering a Wet Status, reporting ammunition, reporting emergencies, departing and clearing the facility.)									
a. Will training be conducted separately? (If yes, proceed to block 4B.b.) (If no, proceed to section 4A)				YES	NO	b. Select the method in which the facility will be divided below			
		Time	Lane		Area				
Provide any applicable information or terms of agreement, if required									
<b>UNIT SIGNATURES</b> (By signing below, I agree to the terms and conditions of this Co-Use Agreement. I understand this co-use agreement and the associated training reservations are not approved until a Range Operations representative approves and signs Section 7.)									
<b>RESERVED UNIT</b>					<b>REQUESTING UNIT</b>				
Name (Last, First)	Rank/Grade	Signature			Name (Last, First)	Rank/Grade	Signature		
<b>5. RANGE OPERATIONS ACKNOWLEDGMENT</b>									
Approved	Denied	Name (Last, First)			Rank/Grade	Signature			
<input type="checkbox"/>	<input type="checkbox"/>								
Remarks									

FTIG FORM 350-12, MAY2021

PREVIOUS EDITION IS OBSOLETE

**Figure 1-6 Co-Use Agreement**  
Note: Digitally available on the RFMSS library

### 1-8. In and out processing on the installation

a. *In-processing:* Units will report to Range Operations, building 11-9 upon arrival on the installation in order to check in on post. During in processing, Units will receive their Installation In-processing Form, FTIG Form 350-3 (see Figure 1-7); this form is required to draw requested resources on the installation and will be maintained during the duration of the stay.

b. *Out-processing:* At the completion of training, Units will return issued items and be cleared by the different applicable departments on the installation prior to returning to Range Operations for out-processing.

INSTALLATION IN-PROCESSING			
For use of this form, see FTIG REG 350-2, the proponent agency is FTIG Range Operations			
<b>1. ADMINISTRATIVE DATA</b> (Completed by Range Operations)			
a. Organization	b. Log number	c. Component	d. Training dates
<b>2. INSTRUCTIONS</b>			
Organizations will:			
a. Maintain this form during the training dates listed above.			
b. Attend applicable, required briefings in section 4 and verify attendance by obtaining briefing organizations signature. For additional information on required briefings reference FTIG Regulation 350-2, Chapter 1-9, Mandatory Briefings.			
c. Report to the applicable installation department in order to check-in and receive the appropriate, scheduled facilities, equipment and/or resources. Organizations will obtain a signature from the respective department when checking in.			
d. Return issued equipment to the respective department and receive their signature after being properly cleared.			
e. Be cleared from each applicable department, prior to reporting to Range Operations for installation out-processing.			
f. Complete section 5, prior to installation out-processing.			
g. Receive a conditional clearance for any outstanding requirements from one or more departments. Organizations with a conditional clearance are prohibited from utilizing installation resources until the previous conditionally cleared FTIG Form 350-3 is satisfied.			
<b>ORGANIZATION ACKNOWLEDGEMENT:</b>			
a. Printed name and rank	b. Signature	c. Date	
<b>3. IN-PROCESSING</b> (Completed by Range Operations)			
a. Printed name and rank	b. Signature	c. Date	
<b>4. BRIEFINGS</b>			
Brief	Organization/location	Rank, name and signature (Completed by briefing agency)	
Weekend Coordination	Range Operations, Fridays at 1330, building 11-11. (717) 861-2152/2153		
Ground Safety	State Safety Office, by appointment, building 11-9. (717) 861-8813/8855		
Medical Support	Troop Medical Clinic, by appointment, building 4-114 (717) 861-2081/2716		
COVID-19 Mitigation	COVID Cell, Monday-Friday 0700-1430, building 11-11 (717) 861-8423		
<b>5. DEPARTMENT CHECK IN AND CLEARANCE</b>			
Department	Check-in (Department representative signature)	Check-out (Department representative signature)	
Range Operations (SOPs, range equipment) Building 11-9, (717) 861-2152/2153			
Training Center Logistical Warehouse Building 11-91, (717) 861-2278/2279			
Billeting Building 11-7, (717) 861-8158/2540			
Ammunition Supply Point Building 25-50, (717) 861-2195			
Training Support Center Building 5-239, (717) 861-7830			
Medical Simulations Training Center Building 16-271, (717) 861-9999			
Morale Welfare & Recreation (MWR) Building 11-91, (717) 861-2278/2279			
<b>6. FEEDBACK</b> (Completed by unit prior to installation clearance)			
Did you encounter any unprofessional member of the installation staff?	Yes No (If yes, explain below)	Did you receive resource, facility or equipment that's condition negatively impacted your training?	Yes No (If yes, explain below)
Were the conditions of the Ranges and Training Areas adequate in meeting your training needs?	Yes No (If no, explain below)	Were you aware of all requirements before arriving to the installation?	Yes No (If no, explain below)
Explain answers above and list any additional concerns or suggestions on the back of this form.			
<b>7. OUT PROCESSING</b> (Completed by Range Operations, signed by organization)			
Does the organization have outstanding Safety Violations, inquiries or reports?	Yes No (If yes, conditional clearance)	Is the organization conditionally cleared from any of the departments in section 5?	Yes No (If yes, conditional clearance)
Conditional	Final	Comments	<b>RANGE OPERATIONS SIGNATURE</b>
			<b>ORGANIZATION SIGNATURE</b>

FTIG FORM 350-3, MAY2021

PREVIOUS VERSIONS ARE OBSOLETE

**Figure 1-7 Installation In-Processing**  
Note: Digitally available on the RFMSS library

## 1-9. Mandatory briefings

### a. Range Operations:

(1) Daily Coordination Brief: The purpose of the Daily Coordination brief is to confirm scheduled training and facilities for that day and to coordinate maintenance and sustainment around those activities. The Daily Coordination brief is mandatory for all units who have facilities reserved on the ITC. Failure to have representation at the Daily Coordination Brief will result in the cancellation of resources for that day.

- (a.) WHO: a representative from all units who have resources scheduled for that days 24-hour period.
- (b.) WHEN: 0730 Monday through Friday.
- (c.) WHERE: Building 11-11.

(2) Weekend Coordination Brief: The purpose of the Weekend Coordination Brief is to confirm the scheduled training events for Saturday and Sunday. After the Weekend Coordination Brief, additional requests are prohibited. Cancellations will still be processed. The weekend Coordination Brief is in addition to the Daily Coordination brief conducted at 0730. i.e. if a unit/organization has training Friday through Sunday, they will attend the Daily Coordination Brief on Friday at 0730 to coordinate Friday's training, then return again at 1330 to confirm Saturday and Sundays training.

- (a.) WHO: a representative from all units who have resources scheduled for Saturday and Sunday.
- (b.) WHEN: 1330 on Fridays.
- (c.) WHERE: Building 11-11.

b. State Safety Office, Ground Safety Briefing: The purpose of the Ground Safety Brief is to inform organization's designated Safety Officer (DOD) or Safety Representative (Civilian and OGA) on general safety requirements applicable to the installation.

- (1) WHO: Designated Safety Officer/Representative.
- (2) WHEN: No later than (NLT) 14 days from arrival to FTIG.
- (3) WHERE: In person at Building 11-9 or telephonically at 717-861-8813/8895.

(a.) All DOD organizations, regardless of branch or component, who have high hazard training (para. 2-2d.) or non-standard training (para. 2-17) scheduled will attend the Ground Safety Brief and provide the SSO with a signed copy of their Safety Officer/NCO Appointment Orders, a copy of their Safety Officer/NCO Additional Duty Safety Certification (ADSC), or branch equivalent, and copies of their training DRAWs.

(b.) All civilian or OGA organizations regardless of length of training time will attend the Ground Safety Brief and provide the SSO with a copy of their Safety Representative Appointment Memo signed by their Manger or Supervisor to the SSO and copies of their training DRAWs.

c. *FTIG Troop Medical Clinic*, Medical Support Briefing: The purpose of the Medical Support Briefing is to provide organizations information on sick-call procedures, assets available at the Troop Medical Clinic and the location of the nearest off post Medical Treatment Facilities. The TMC can be contacted at 717-861-2091/2716, Building 4-114.

- (1) WHO: Unit representative.
- (2) WHEN: NLT arrival to FTIG.
- (3) WHERE: Building 4-114.

**1-10. Risk management**

a. The unit commander is the principal training officer and has overall safety responsibility for the unit. The FTIG Garrison Commander retains the right to conduct or require a BDE/BN/CO commander to conduct an investigation of any accident, incident or malfunction with findings submitted to the Garrison Commander for authorization to clear or return to FTIG.

b. Commanders will ensure that DRAWs have been reviewed, approved and signed in accordance with ATP 5-19. DRAWs will be maintained at the training location for review by the Range Inspectors. All DRAWs will have a residual risk level of medium for all hazardous training being conducted and will be signed by one of the following:

- (1) Battalion Commander, O-5 or above.
- (2) O-4 with Assumption of Command Memorandum
- (3) Battalion XO, S3 or other O-4 with specific, written signature authority from the BN commander.

c. Personal Protective equipment (PPE) will be worn IAW all applicable training publications. Table 1-3 provides the protective equipment required for each PPE Level.

**Table 1-3  
Personal Protective Equipment levels**

PPE Level	Protective equipment					
	Eyes	Ears <sup>1</sup>	Helmet	Body armor	Front/back plates	Side plates
0	✓	✓				
1	✓	✓	✓	✓		
2	✓	✓	✓	✓	✓	
3	✓	✓	✓	✓	✓	✓

Notes:

<sup>1</sup>Double hearing protection is required for certain munitions or exposure amounts. The word plus will follow the PPE level when double hearing protection is required (e.g. PPE Level 1 plus is required when employing 41 rounds or more per day of the M84 stun grenade).

**1-11. Modification, mowing and dig requests**

a. Units will request modifications to any range, training area or facility to Range Operations NLT 45 days prior to training. Digging and modification is prohibited in TA A-15 without approval from the Bureau of Environmental Management (BEM). Request to modify, mow, and/or dig in TA A-15 will be submitted at least 45 days in advance through Range Operation to the Bureau of Environmental Management (BEM) for review and approval. All projects greater than 5,000 square feet of earth disturbance or excavations greater than one acre require an Erosion and Sedimentation (E&S) plan. Requests made directly to the Department of Public Works (DPW), Department of Installation Management (DIM) or Range Maintenance will not be executed without Range Operations approval. Examples of modifications to enhance or support training are as follows; fortifications, berms, tank traps, barricades, targets, and simulated enemy positions.

b. Mowing of ranges and training areas is done on a fixed schedule. Units may request for a specific area to be mowed by completing a DIM request form and attaching a graphical image of the area. Open field mowing requires RMA approval.

c. Units will repair the maneuver damage they produce. When the damage is excessive and requires repairs by the installation, the unit will be held accountable and billed accordingly. In the event weather is the primary cause for excessive maneuver damage, contact Range Operations to evaluate.

d. Units will complete a DIM Special Excavation Permit Application (see Figure 1-8) for any emplacement of equipment





(1) EOD teams in a mission support role for FTIG will conduct operations IAW appropriate EOD regulations, directives, internal standard operating procedures (SOPs) and applicable considerations pre-coordinated with Range Operations.

(2) Upon arrival, EOD personnel will report to Range Operations for a situation update.

(3) EOD teams will be escorted to the UXO locations by Range Operations personnel who will provide access, area security and radio communications to the Range Operations Fire Desk.

*c. Weather:* Fort Indiantown Gap experiences a humid continental climate with hot and humid summers and cold winters. FTIG has summer day temperatures between 75°F and 95°F, while nights are between 55°F and 70°F. Winter highs are between 33°F and 45°F, while lows register between 19°F and 30°F. FTIG has evenly distributed precipitation throughout the year that averages 42” annually, with July receiving peak rainfall and February receiving peak snow accumulation. FTIG is vulnerable to thunderstorms. March and April are prone to flooding. Snowstorms are frequent during the winter, and a few are of high intensity.

(1) In cantonment the FTIG Public Address System will notify personnel of any severe weather, natural or manmade disaster.

(2) Range Operations will transmit weather warnings as they are received. This includes Wet bulb globe temperature reading of 78°F or higher and severe weather warnings. All units will acknowledge warning messages on the Range Safety NET. OICs and RSOs will notify their higher command and modify training as necessary. With the exception of placing demolitions training in a Dry Status and ordering computer operated ranges to shut down during electrical storms, Range Operations will not dictate a units’ actions during inclement weather.

(3) Range Operations will relay all other emergency messages to personnel on the ITC by the most expeditious method available.

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

(1) Units must submit a DIM work order NLT 2 weeks prior to occupation to have their training area sprayed for ticks and mosquitoes.

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

(3) OICs will ensure medics are informed and prepared for individuals who are allergic to stinging insects. Notify Range Operations immediately of any concerning nests or infestations. Commercial off the shelf products may be used.

(4) Northern Copperhead and Timber Rattlesnakes are found at FTIG. Do not disturb snakes or any species of wildlife. Contact Range Operations to report wildlife impacting training.

### **1-13. Environmental stewardship**

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

*b.* 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 do not generate 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 on the installation.

(2) Non-standard uses of training areas and ranges.

*c.* The REC will be signed at the Daily Coordination Briefing (see section 1-8) and forwarded to OFE-BEM-EP, Building 0-11, Attn: NEPA coordinator.

*d.* The majority of all training areas require the use of portable toilets. Many weapons ranges have fixed latrines or portable latrines year-round. Field expedient latrines are prohibited.

*e.* Field mess and kitchen sites will dispose of waste water in gray water storage containers. If units are disposing of their gray water independently, they will utilize the maintenance-hole located at Ypers Ave and Kletzly Ave in Area 13.

*f.* Units are responsible for the transport and proper disposal of garbage, trash and recyclables in the proper, designated dumpsters or collection areas on the installation.

*g.* Units will dispose of weapon cleaning materials IAW the latest version of the PAARNG Waste Management Plan, which may be obtained by contacting BEM at 717-861-8181, Building 0-11.

*h.* Vehicle and equipment washing is only authorized at the Area 10 wash point from 1 April through 1 October annually. The wash rack (wash point) will be scheduled through RFMSS NLT 48 hours prior to use. A minimum of ten (10) wheeled vehicles for the overheads and five (5) tracked vehicles for the birdbath is authorized. Courtesy hoses are available 24/7 when wash point is operable and not winterized.

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

*j.* Relic hunting and the 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 reported to Range Operations immediately. The site must be secured, and training is prohibited until clearance is given by BEM and the RMA to continue.

k. Mounted, equipment, and/or bivouac training is prohibited in any area marked as a Scientific Research Area delineated by yellow signs. Unit will contact Range Operations if their training requires access to Scientific Research Areas.

l. Mounted cross country training is prohibited in TA A-15 (FTIG former landfill) and within 25 meters of any stream, drainage swale, wetlands, or sedimentation control structure.

m. Vehicles are authorized to travel on established/maintained trails. Unauthorized training will be reported to the government agency that has jurisdiction.

n. Units are responsible for all damages and fines resulting from unauthorized vehicular traffic.

o. Units must have at least one spill response kit on hand or be familiar with the location of the nearest installation spill kit when occupying any area or facility on the ITC.

p. All natural resources are property of the Commonwealth and the removal, alteration, and/or destruction thereof is prohibited without approval. Removal of any wild or native plant, animal, or mineral material is prohibited unless pre-approved by Range Operations and BEM.

q. Filters are prohibited during water purification training, if returning water to the source.

#### **1-14. Vehicle operations and trail and road network**

a. *Privately Owned Vehicles (POV)*: POVs are automobiles personally owned by the user and have different access privileges and limits of use on the installation. Government-furnished automobiles, also known as government rentals, are considered Army Motor Vehicles (AMVs) in the context of the below POV restrictions.

(1) POVs are prohibited on the ITC without a POV Permit issued by Range Operations.

(2) POV Permits will only be issued to Battalion Commanders and above, Command Sergeants Majors, and any Chaplain performing their duties on AT or IDT status due to a lack of organic vehicle.

(3) Current vehicle registration, state driver's license, and proof of insurance are required.

(4) POVs may use identified POV parking areas on Range Road.

(5) Installation facilities will not be used to charge POVs without approval from the Garrison Commander.

b. *Speed Limits*:

(1) Public Road ways – as posted; 25 MPH if not posted

(2) Tank Trails – 15 MPH

(3) Convoys – 15 MPH

(4) Passing troops or joggers in formation – 10 MPH

(5) Blackout or night-aided – 10 MPH

c. Bridge weight classification will be observed; if not marked consult DPW at 717-861-6419.

d. *Tank Trail and Road Network*: The FTIG Tank Trail and Road Network is comprised of primary, improved trails and secondary, unimproved trails.

(1) *Primary Improved trails*: Primary improved trails are considered access routes throughout the ITC. They are trails or roads that are graveled and treated with dust suppression or hard topped roads. Primary improved trails will not be blocked or used for training. A list of the main Primary Improved trails and roads are as follows:

(a.) East Tank Trail

(b.) South Tank Trail

(c.) North Tank Trail

(d.) Medina Ridge Tank Trail

(e.) Cold Springs Road

(f.) Ammo Road

(g.) Weise Road

(h.) Mclean Road

(i.) Range Road

(2) *Secondary, unimproved trails*: Secondary unimproved trails are typically found within training areas. These trails are not routinely managed and may present unmarked hazards such as culverts, extensive erosion, ditches, and debris. Secondary, unimproved trails may be utilized for training purposes.

(3) The Tank Trail Network should be used as much as possible for tactical convoys and primary routes of travel wherever feasible.

(4) Road guards will be posted at all hard top road crossings and will face oncoming traffic while blocking the way. A minimum of two personnel with reflective, high visibility vests, and flashlights during limited visibility will be used as road guards.

- (5) Helmets or CVC with shell will be worn by all operators per commander's directive.
- (6) Unless specified by Range Operations, tank trails are closed to civilian traffic.
- (7) Vehicles backed in or around a bivouac site or vehicle staging area will use both front and rear ground guides.
- (8) All vehicles on firing ranges not involved in tactical maneuvers will be led by a ground guide.

### **1-15. Prohibited areas**

Training units are prohibited from the following areas:

- a. The Dudded Impact Area.
- b. Any area closed by a road barrier or gate.
- c. The Ammunition Supply Point and its surrounding area.
- d. St. Paul's Cemetery.
- e. Private property holdings.
- f. Scientific research areas.
- g. 25-meter buffer surrounding wetlands, streams, intermittent streams, drainage swales or sedimentation control structures.
- h. The Pennsylvania Department of Transportation Training Facility located in TA C-01.
- i. The Fish Nursery in TA B-08.
- j. Marked UXO areas.
- k. State Game Lands 211.
- l. Memorial Lake State Park.
- m. Any other area marked off limits.

### **1-16. Additional prohibited activities**

- a. Possession and consumption of alcoholic beverages on ranges or training area.
- b. Firing of ammunition, pyrotechnics, missiles, and/or rockets over Ammunition Supply Points (ASPs), ammunition transfer points, field ASPs, or any ammunition storage area.
- c. Mounted training in wetlands or streams other than designated fording points/low water crossings.
- d. Firing ammunition/weapons over troops which are not cleared for overhead fire, e.g. mortars.
- e. Starting or maintaining any open fires unless authorized by Range Management Authority.
- f. In general, the use of gas or charcoal grills is prohibited. Exceptions to this policy may be requested in writing to the Range Management Authority. Requests will be reviewed and approved on a case-by-case basis.

## **Chapter 2**

### **Range Operations**

#### **2-1. Hours of operations and location**

- a. Range Operations is located at Building 11-9 Service Road, Annville PA, 17003.
- b. The Range Operations Fire Desk Phone Number is 717-861-2152/2153.
- c. Range Operations opens daily at 0700 and closes when all training events have ceased, all personnel and equipment are accounted for, and the ITC is secured.
- d. When necessary, Range Operations will conduct 24-hour operations to support unit training.
- e. Normal firing hours in the training corridor coincide with the installation's controlled airspace hours of 0800-2300 daily.

#### **2-2. Range operation requirements**

Units training on the ITC will:

- a. Schedule facilities and resources IAW Chapter 1-7.
- b. In-process on the installation IAW Chapter 1-8.
- c. Submit a signed Range Safety Certification Roster (RSCR) certifying all OICs and RSOs listed have been properly trained and have a valid FTIG Range Safety Card.
- d. Submit a High Hazard Authorization Form, FTIG Form 350-6 (see Figure 2-1), for the following training activities:
  - (1) Rappelling.
  - (2) LFSH operations.
  - (3) Helocasting.
  - (4) Select urban breaching.
  - (5) Any other training that doctrinally requires certified personnel in specified roles executing critical responsibilities; the RMA will execute his/her discretion in determining training that meets this criteria.
- e. Draw range facility equipment from Range Operations; e.g. Range/Training Area (RG/TA) SOPs, flags, paddles,

bullhorns, clearing rods, etc.

f. Attend mandatory briefings IAW Chapter 1-8.

g. Ensure appropriate OICs and RSOs are assigned and performing duties IAW Chapter 1-5.

h. Utilize the proper PPE, IAW Table 1-3, for all personnel conducting live-fire, using pyrotechnic devices, and/or conducting demolitions. Units will use additional PPE when required.

HIGH HAZARD AUTHORIZATION				
For use of this form, see FTIG REG 350-2, the proponent agency is FTIG Range Operations				
INSTRUCTIONS: Send completed form electronically, to the below email, or in person at Building 11-9. EMAIL: <a href="mailto:ng.pa.paarnq.lst.ftig-4rng-site-range-control@mail.mil">ng.pa.paarnq.lst.ftig-4rng-site-range-control@mail.mil</a> or contact 717-861-2152/2153 for assistance.				
<b>1. COMMANDER</b>				
a. Name (Last, First, Middle Initial)	b. Rank	c. Phone	d. Email	
<b>2. TRAINING AUTHORIZED</b>				
a. Training Type (Write in next block if not listed)		b. Start Date	c. End Date	
<b>3. PERSONNEL IN CHARGE</b>				
a. First Name	b. Last Name	c. Rank	d. Duty Title	e. Certification
<b>4. CERTIFICATION</b> (completed by Commander)				
I acknowledge the training listed above is considered highly hazardous by the installation commander, due to the catastrophic severity of expected occurrences IAW the deliberate risk assessment process and the doctrinal requirement for certified personnel in select safety roles. I have conducted a deliberate risk assessment on this training and have changed the personnel listed above in ensuring compliance with all applicable safety and training publications pertaining to all aspects of the event, to include weapons, vehicles, ammunition and training.				
a. Name	b. Signature		c. Date	
<b>5. ACKNOWLEDGMENT</b> (completed by Range Operations)				
a. Name	b. Signature		c. Date	

FTIG FORM 350-6, MAY2021 REPLACES LFSH AND CROCL MEMORANDUMS

**Figure 2-1 High Hazard Authorization**

Notes: Allows commanders to authorize high hazard training by listing applicable personnel, their certifications and responsibilities Digitally available on the RFMSS library.

**2-3. Communications**

The OIC will establish and maintain radio communications with Range Operations on dedicated equipment. The OIC will ensure the Range Safety Network (NET) is monitored at all times and all radio checks initiated by Range Operations are responded to. If Range Operations cannot contact a unit on the NET after three attempts, a Range Inspector will be dispatched to the facility IOT regain contact and determine the cause of the break in contact. The unit will be placed in a check fire, once communication is re-established, the check fire will be lifted. If the break in contact was due to a failure to monitor the NET, the OIC will receive a Safety Violation.

*a. Frequencies:*

(1) The primary means of communications on the ITC is by 800MHz radio. The primary 800 MHz channel is RNGSFTY.

(a.) PAARNQ will utilize their own 800MHz radios. Range Operations will issue non-PAARNQ units 800 MHz radios.

(b.) Instructions for programming are available on the RFMSS library.

(c.) When primary means of communication is lost, the radio telephone operator (RTO) will notify the OIC/RSO and the unit will place themselves in check-fire until primary communications are reestablished.

(2) Alternate means of communication is the Combat Radio Network (CRN) FM 41.400 SC/PT.

*b. Reporting:*

(1) Range Operations will issue:

(a.) Occupation time and code upon request by an occupying unit.

(b.) Wet time and code upon a request to begin hazardous training; i.e. entering a Wet Status.

(c.) Dry time and code upon a request to cease hazardous training; i.e. entering a Dry Status.

(d.) Departure time and code when a request to depart a facility is made.

(e.) Clear time and code after a Range Inspector has conducted a clearance inspection.

- (f.) Notifications of flight activities, weather considerations, force protection concerns, and any other applicable broadcasts.
- (2) Units will:
  - (a.) Request to occupy upon entering a facility by providing Range Operations the assigned unit call-sign, training location, OICs Range Safety Card number, number of personnel to be trained, and number and type of vehicles.
  - (b.) Request to enter a Wet Status by providing Range Operations the assigned unit call-sign, training location, RSO(s) Range Safety Card number, and ammunition DODIC.
  - (c.) Request to enter a Dry Status when ceasing live-fire for a time greater than 30 minutes or permanently for the day and providing Range Operations unit assigned call-sign, training location, and number of rounds fired by DODIC.
  - (d.) Request to depart by providing Range Operations the unit assigned call-sign, training location, and their intentions to clear or re-occupy at another time.
  - (e.) Request to clear the facility IAW Chapter 2-5 below.
  - (f.) Conduct radio checks every 3 hours with Range Operations while occupying a facility on the ITC.
  - (g.) Conduct radio checks every 1 hour while conducting hazardous training; i.e. while in a Wet Status.
  - (h.) Notify Range Operations of any facility discrepancies, force protection concerns, and any vehicular or medical incidences.

*c. Guidelines:*

- (1) Units will be in an occupied status at all times when equipment or personnel are present on the training area or range. Requests for exceptions to this policy can be submitted to the RMA at least 30 days in advance of training.
- (2) Units occupying physical fitness sites may send transmissions utilizing a telephone by calling the Fire Desk at 717-861-2152/2153.
- (3) Units will utilize the primary 800 MHZ Radio to occupy. Units are prohibited from utilizing alternate; back-up means of communication to occupy.
- (4) Some locations require vehicle mounted equipment or the addition of OE 254/292 antennas for communication.
- (5) Units will utilize proper military etiquette when transmitting on Range Operation NETs. Communication scripts are provided in all range or training area SOPs.
- (6) Units are prohibited from using Range Operation NETs for internal communication. Units that require radio frequencies for internal use will contact the PAARNG G6 Protection Division at (717) 861-2314.
- (7) Most ranges are equipped with landline telephones. Units will ensure telephones are operational upon occupation of the range. Range Operations can be reached from range telephones by dialing 2-2152 or 2-2153.
- (8) Units may utilize one RTO for several areas as long as the training areas are adjoining, the training is non-hazardous, and prior coordination has been conducted with Range Operations.

## **2-4. Medical support**

*a. Requirements:* Units will have the minimum required medical support personnel (CLS, 68W or civilian equivalent) IAW Table 1-1. Units will coordinate through their higher headquarters for medical support requirements. FTIG does not have the capacity to provide units with medical support.

- (1) Training requiring a CLS, or civilian equivalent, will have a dedicated vehicle (GOV, GSA, or MCV) that is capable of transporting a litter safely and efficiently.
- (2) Training requiring 68W (EMT-B for civilians) will have a dedicated ambulance; e.g. civilian ambulance, M1133 or M997 ambo.
- (3) All dedicated medical personnel will have a functioning litter and an aid bag adequately equipped to treat trauma patients.
- (4) If a unit or organization cannot maintain the required medical support the OIC will cease all training and contact Range Operations immediately.
- (5) Medical personnel will have an assigned protective mask while supporting training involving chemical agents.
- (6) Units conducting waterborne training will have a certified Red Cross Lifeguard, an equal number of flotation devices per number of personnel training and a lifeboat. Dedicated medics are prohibited from performing Lifeguard duties. Units can request a lifeboat, 2 weeks in advance, through the MWR at 717-861-2711.
- (7) Units occupying multiple non-hazardous training areas are authorized to utilize a single medic as long as the following conditions are met:
  - (a.) TAs are adjoining.
  - (b.) Units are subordinate to the same higher Headquarters (HQ).
  - (c.) The HQ, with medical support, are located at one of the adjoining TAs with its 10-digit-grid provided to Range Operations.
  - (d.) All subordinate elements have communications with the HQ and the HQ has communication with Range Operations.
- (8) Units occupying two facilities while conducting hazardous training may utilize a single medic as long as the below

conditions are met:

- (a.) Facilities are adjoining (e.g. Ranges 8Q/8Z, 9Q/9Z, and 11Q/10Z).
- (b.) Both are subordinate to the same higher HQ.
- (c.) Medical personnel and equipment are located at one of the two sites. If a medic is attending to a casualty at either facility, training at both sites will cease until the medical incident has been resolved.

*b. Medical emergencies:*

(1) Medical emergencies, minor and severe, will be reported to Range Operations immediately. The following information will be reported: Full name, rank, gender, and type of injury. Units will notify Range Operations when the status of the injured personnel changes.

(2) Emergency communications take precedent over the NET. Range Operations will instruct units to cease fire in the event of an aeromedical evacuation (AEROVAC).

(3) Personnel with minor injuries may seek off-site care at the unit's discretion; transportation by POV is prohibited. In the event the medic or dedicated vehicle depart the facility, training will cease until the medic requirements are reestablished.

(4) Personnel with severe injuries (life, limb, eyesight) will not be moved. Range Operations will dispatch the FTIG Fire Department, who will become the Incident Commander. FTIG Fire Department will direct medical treatment and determine if and how to evacuate patients.

(a.) Ground transportation will be made by local emergency medical services (EMS); Local advanced treatment facilities include Good Samaritan Hospital at 252 S. 4th St., Lebanon, PA 17042 and Hershey Medical Center at 500 University Dr., Hershey, PA 17033.

(b.) If AEROVAC is required, FTIG Fire Department and/or local EMS will prepare the patient for transportation. The FTIG Fire Department will establish the Landing Zone (LZ). LZs for AEROVAC are published in Table 8-4.

(5) If injuries occur in cantonment units will dial 911 from a post phone or cellphone. Units will provide their name, contact number, building number, and nearest road intersection. FTIG Fire Department can be contacted at (717) 861-2111.

## **2-5. Range clearance**

*a.* OICs will ensure police calls are conducted and the facilities used are returned to a sterile condition in which they received it. Units will utilize the Range Clearance Checklist, located in the facility SOP, as a guide. Units are prohibited to clear post until all areas used have been policed properly, inspected, cleared, and equipment issued by Range Operations has been returned. Conditional clearances will be issued when a facility could not be cleared prior to departure or outstanding discrepancies exist (e.g. damage to training lands or facilities and missing equipment). Units will make all efforts to promptly correct their deficiencies. Units who fail to correct outstanding deficiencies are prohibited from training on the installation.

*b.* Units who fail to report deficiencies upon occupation are responsible for those deficiencies when clearing.

*c.* Units will not throw trash or debris in any portable toilets or hard latrine systems. Units will not be cleared from the location until the objects have been removed.

*d.* Units will not be cleared from facilities during periods of darkness. Coordination will be made with Range Operations to meet the next day for clearance.

*e.* Trails and roads will be policed and any damage repaired or reported to Range Operations.

*f.* Buildings will be swept and cleaned and all power turned off IAW facility SOP.

*g.* Two tied, serviceable sandbags will be maintained at each firing point. Sandbags will be neatly and uniformly stacked with end ties facing the same direction. Ten serviceable sandbags will be placed at the base of the tower prior to departure. A serviceable sandbag is defined as having no holes, tears, or rips.

*h.* Firing lines will be policed and all brass/firing residues turned into the ASP.

*i.* The terrain will be restored to its original condition except when Range Operations gives permission to leave emplacements. All temporary berms, fighting positions, bunkers, and target positions will be back-filled and the terrain contour restored.

*j.* Excessive maneuver damage will be repaired by the unit. Units will be financially responsible for damage that cannot be repaired.

*k.* Broken or unserviceable range fixtures or equipment will be repaired if possible. If repair is not possible, the problem will be reported to Range Operations.

*l.* Facilities are considered cleared when the OIC has conducted a clearance inspection with Range Operations and all equipment has been returned. Units will return SOPs, Keys, and other issued equipment to Range Operations immediately after facility clearance.

*m.* Unit will ensure that all furniture is restored to its original configuration in urban training facilities (e.g. Combined Arms Collective Training Facility (CACTF), Conex Villages, Shoot house).

## **2-6. Cease Fire and Check-Fire Freeze**

*a.* Units will have primary and alternate signals for Cease Fire during day and limited visibility conditions. Cease Fire procedures will be briefed to all personnel on the training facility.

*b.* Check-Fire Freeze is a command issued by Range Operations to the OIC and/or RSO in the event of a serious safety violation or incident. The OIC and RSO will cease training, freeze the training area by leaving all equipment and weapons in place, and consolidate all personnel to a safe location. Range Operations will direct unit actions until the Check-Fire Freeze command is lifted.

## **2-7. 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 the ITC will immediately notify Range Operations.

*b.* FTIG has an annual prescribe burn plan to reduce the amount of fuel from ground litter and debris. A range fire does not automatically deny a unit's ability to train.

*c.* The ITC has an extensive fire breaks system that utilizes the road and trail network, units will not block trails without approval from Range Operations.

*d.* Range Operations will report the Fire Danger Rating at the Daily and Weekend Coordination Brief. Fire Danger Ratings may place restrictions on a unit's ability to utilize pyrotechnics and tracers.

*e.* Units will not be cleared from a facility if that facility has an active fire.

*f.* Units will assist Range Operations, DMVA Forestry and/or the FTIG Fire Department upon request.

*g.* Units are responsible for damages to facilities and infrastructure, if the fire or damage is due to negligence.

## **2-8. Suspension of authorization to serve as OIC/RSO**

*a.* OICs and RSOs who violate, or permit the violation of this regulation or any other applicable training or safety regulation will have their Range Safety Card revoked and be issued a safety violation.

*b.* Upon the issuance of a safety violation, training will cease and the OIC and RSO will be replaced. Within 24 hours of suspension, the certifying commander on the units' RSCR (BN/SQ commander) will provide a letter to the Range Management Authority providing information concerning the facts and circumstances of the incident and what actions will be taken to preclude future violations.

*c.* OICs and RSOs who have their Range Safety Card revoked must attend the installation's RCSP training IOT receive a new Range Safety Card.

*d.* Length of suspension will be determined by the Range Management Authority.

*e.* Examples of Safety Violations that will result in an immediate suspension are:

- (1) OIC/RSO not present at the range or training area.
- (2) Failure to have the appropriate medical support on site.
- (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.
- (9) Failure to notify Range Operations of an injury/illness and/or transporting injured personnel.
- (10) Crossfire or firing outside of range limits.
- (11) Round landing outside of the prescribed Safety Target Box.
- (12) Demolitions or charge explosion not according to shot plan or shot log.
- (13) Any act that results, or could have resulted, in the destruction of property or loss of life.

## **2-9. Range equipment**

*a.* Range Operations will supply flags, standard army targets and Facility SOPs; Range Operations can also provide safety paddles, clearing rods, bullhorns and staple guns, if units are unable to provide their own.

*b.* Units will provide and maintain current training and technical manuals for the weapons being employed at the training facility.

*c.* Units are responsible for incidental materials necessary for training, such as score cards, flashlights, special targets, trash bags/containers, charcoal for heating of targets (thermal), and personnel hearing protection.

*d.* The OIC is responsible for all equipment signed out from Range Operations along with the equipment that belongs to the facility.

*e.* Units will be financially liable for damaged or lost equipment.



f. Range Maintenance stocks expendable range items on the range, e.g. cardboard, targets and breaching shims and doors. A Range Maintenance Catalog listing other support items is published on the RFMSS library. Contact Range Maintenance at (717) 861-2852 to for additional information.

## **2-10. Range details**

- a. Units will supply supervised details to assist Range Operations for the following situations:
- (1) Range operations, maintenance, and communications
  - (2) Range fires
  - (3) Range police call and cleanup
  - (4) Range security
  - (5) Locating points of impact (POI) for IDF rounds out of safe.

## **2-11. Barriers, gate guards and controlled access**

a. Entry into the Dudded Impact Areas is prohibited without Range Operations approval. Possession of a key does not constitute access privileges. The Dudded Impact Area is marked by warning signs, locked barriers and triple strand barbed wire fencing. This is an extremely hazardous area. Any individual (military or civilian) in the Dudded Impact Area without authorization will be prosecuted for criminal trespassing. All personnel requiring access will report to Range Operations for authorization. Entry restrictions apply to everyone without exception.

b. Units will ensure non-guarded entry points to the range and its danger areas are secured. Guards will have communications with the OIC and RSO and will be placed at any entry point that is not secured.

## **2-12. Bivouacking**

a. Units intending to bivouac on training facilities will annotate their intentions in the comments section of their training request and check the continuous box for that facility.

b. Units will update Range Operations at the Daily and/or Weekend Coordination Brief their intended hours of operations.

c. Units bivouacking on the ITC will have two-way communication with Range Operations. When conducting 24 hour operations this will be accomplished via the 800 MHz radio system. When Range Operations is not conducting 24 hour operations, this will be accomplished via land-line or cellular telephone.

d. Units are prohibited from using range support buildings (I.e. ROCO facilities: Range Tower, Ammo Sheds, etc.) or urban training structures (e.g. CACTF and Simmunition villages) as bivouacking locations.

## **2-13. CBRN training**

a. The only authorized chemical agents to be utilized in training are Riot Control Agents (RCAs).

b. Units are prohibited from using RCAs during live-fire training.

c. Use of RCAs is limited to CS, CSX, CS-1, CS-2 and CR.

d. RCAs will not be deployed within 500 meters of heavily traveled roads or inhabited areas. RCAs will not be deployed within 1000 meters of the installations boundary; Units will notify Range Operations if RCAs drift off the installation.

e. Units will place a comment stating their intentions on using RCAs in the comments section of their training request.

f. Units will brief Range Operations at the Daily and/or Weekend Coordination brief on the intended CBRNE operation and provide a schedule of events.

g. CS capsules are the only authorized agent for use in gas chambers.

(1) CS capsules and an improvised generator are used to set up a concentration of agent within the CS Chamber. One (1) capsule will establish an initial concentration within the chamber; one (1) capsule placed on the improvised generator after fifty (50) soldiers pass through the chamber will maintain the concentration per ALARACT 013/2016, DTG 091339ZMAR16.

## **2-14. Improvised Explosive Device (IED) training**

a. IED Training Aids and Devices (TADS) are available at the TSC, see Chapter 9 for more details.

b. Units utilizing IED training aids will submit an overlay depicting the location of the device(s) to Range Operations NLT 48 hours prior to training. Overlays are not required when utilizing contractor support at Range 39, the Counter-IED Lane.

c. Non-DOD fabricated IED training aids are considered Non-Standard Training, requiring a NSTR IAW Chapter 2-17.

Non-DOD fabricated IEDs will:

- (1) Be marked inert and have the owning organization's name on it.
- (2) Never be left unattended.
- (3) Not have pyrotechnic capabilities including noise and smoke.
- (4) Be dismantled and disposed of after training.
- (5) Not be used on public access roads or trails.

**2-15. Foot marches and convoys**

- a. Units conducting road marches or convoys consisting of 5 or more vehicles will submit a Convoy and Road March Overlay, FTIG Form 350-7 (see Figure 2-3), to Range Operations.
- b. Approved Movement Overlays will be issued a Movement Control Number.
- c. Units will contact Range Operations over the Range Safety NET, provide their Movement Control Number and report when starting and finishing movements and every 3 hours, if necessary.
- d. The tank trail network will be used wherever possible.
- e. Intersection crossings will utilize ground guides IAW Chapter 1-14.
- f. Blackout drive is prohibited on primary, improved roads or trails as defined in Chapter 1-14. Blackout drive is authorized on secondary, unimproved trails within assigned training areas. Blackout drive for a single vehicle will be limited to 10 mph and does not require an overlay.
- g. When conducting foot marches or convoys, a clearing vehicle will be used, with service lights on, and operate approximately 100 meters to the front of the movement IOT clear the way of any POVs, obstruction, or personnel.
- h. Clearing vehicles will have communication with trail vehicle and OIC.
- i. Convoys will obey posted speed limits.
- j. Co- Use agreements will address any blackout drive movements.

<b>CONVOY AND ROAD MARCH OVERLAY</b>								
For use of this form, see FTIG REG 350-2, the proponent agency is FTIG Range Operations								
<b>INSTRUCTIONS:</b> Complete each required block below. Units requesting Law Enforcement Agency (LEA) support will coordinate directly by contacting FTIG LEA at 717-861-2727. Attach graphical overlay in block 4. Submit form to Range Operations, no later than 48 hours from execution, at the below email or delivering directly to the Fire Desk at Building 11-9. <b>EMAIL:</b> <a href="mailto:ng.pa.paarmg.list.ftig-trng-ste-range-control@mail.mil">ng.pa.paarmg.list.ftig-trng-ste-range-control@mail.mil</a> or contact 717-861-2152/2153 for assistance.								
1. UNIT AND MOVEMENT INFORMATION								
a. Rank	b. Name (Last, First)	c. Unit	d. Phone	e. Email				
f. Movement Date		g. Start and End Time		h. Vehicles (Quantity And Type)				
		<table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <tr> <td style="width: 50%;">Start</td> <td style="width: 50%;">End</td> </tr> <tr> <td> </td> <td> </td> </tr> </table>		Start	End			
Start	End							
2. LEA SUPPORT (If Not Requested, Proceed To Block 3)								
a. SUPPORT REQUESTED (List The Type Of Support Requested With Applicable Time, Equipment Or Location)								
3. LEA APPROVAL (completed by LEA)								
Approved	<input type="checkbox"/>	Denied	<input type="checkbox"/>	b. Comments				
a. Officers Name								
4. GRAPHICAL OVERLAY								
Click Here to add image								
5. RANGE OPERATIONS APPROVAL								
a. Name	b. Signature	c. Date	d. Movement Control Number					

FTIG FORM 350-7, MAY2021

PREVIOUS EDITION IS OBSOLETE

**Figure 2-2 Convoy and Road March Overlay**

Notes: Complete the form, in its entirety, and submit to Range Operations NLT 48 hours from execution. Digitally available on the RFMSS library

**2-16. Night fire**

a. Ranges 7, 8Q, 9Q, 11Q, 34 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 will meet the following requirements prior to night firing.

- (1) Left and right range fans illuminated
- (2) Entry/exit point to firing line will be illuminated
- (3) Flag pole will be illuminated with blinking red lights
- (4) Unit Commanders will develop an illuminated signal plan for range safeties to communicate with the range tower. Red and green chemical lights are recommended.
- (5) For specific requirements of ranges that can support thermal operations contact Range Operations.

**2-17. Non-standard training**

Non-Standard Training is defined as the use of a range, training area or facility used outside of the intended purpose it was created either through the type of training, weapon, or ammunition. Non-Standard training requires the submission of a Non-Standard Training Request (NSTR), FTIG Form 350-8 (see Figure 2-4), to Range Operations for approval. Questions concerning NSTR should be addressed to Range Operations at 717-861-2099. Units submitting a NSTR will:

- a. Annotate, in the comments section of their RFMSS request, their intentions of non-standard training on the facility.
- b. Complete and submit a FTIG Form 350-8 NSTR to Range Operations NLT 45 days prior to execution.
- c. Submit a DRAW and Concept of the Operation (CONOP) with the NSTR.

<b>NON-STANDARD TRAINING REQUEST</b>				
For use of this form, see FTIG REG 350-2, the proponent agency is FTIG Range Operations				
<b>INSTRUCTIONS:</b> Submit Non-Standard Training Request (NSTR) form, Deliberate Risk Assessment Worksheet (DRAW) and Concept of the Operation (CONOP) to FTIG Range Operations, no less than 45 days prior to execution. <b>EMAIL:</b> <a href="mailto:ng.pa.paarnj.list.ftig-trng-ste-range-control@mail.mil">ng.pa.paarnj.list.ftig-trng-ste-range-control@mail.mil</a> or contact 717-861-2099 for assistance.				
1. ORGANIZATION POINT OF CONTACT				
a. RANK	b. NAME (Last, First)	c. UNIT	d. PHONE	e. EMAIL
2. REQUESTED TRAINING:				
a. Training Dates			b. Location (Range, Training Area, Facility, Etc.)	
Start	End			
c. Weapon System(s)		d. DODIC(s) (Type of Ammunition)		e. Number Of Personnel
3. TRAINING JUSTIFICATION (Relevant background information on the reason why the training is being conducted)				
4. TRAINING INTENT (Brief explanation of training to be conducted)				
5. PREPARER				
a. Name	b. Signature		c. Date	
6. COMMANDER (DOD) or SUPERVISOR (OGA/CIV)				
a. Name	b. Signature		c. Date	
7. RANGE OPERATIONS APPROVAL				
Reviewer Signature			Range Management Authority (RMA) Signature	

FTIG FORM 350-8, MAY2021

PREVIOUS EDITION IS OBSOLETE.

**Figure 2-3 Non-Standard Training Request (NSTR)**

Notes: Units will submit a DD Form 2977 with their NSTR 45 days prior to execution.  
Digitally available on the RFMSS library

## Chapter 3 Ammunition and explosives

### 3-1. Guidance

a. Ammunition and explosive requirements are based on AR 75-1, AR 190-11, AR 385-40, AR 385-63, AR 385-64, DA PAM 385-63, DA PAM 385-64, NGR 385-63 TB 9-1300-385, FTIG Regulation 700-4, and publications for specific weapons, ammunition, and explosives. FTIG Regulation 700-4 supersedes this chapter, in the event of conflicting information.

b. Figure 3-1 lists, by range, the authorized ammunition for that facility. Units requesting alternate ammunition then listed will submit a NSTR IAW Chapter 2-17 for consideration.

AMMUNITION AUTHORIZED FOR USE		
Range	DODIC	Common Name
2	B519, BA54	40mm TP (linked ammunition not authorized)
3	A059, AB57, AB58, AB77, A056, A062, A064, A143, A363, AA49, AC20, AC22, A260, A106, A086, A091, A093, A400, A404, A475, A483, A482, A011, A014, A017, A023, AA54, CIV 357, CIV 40	5.56mm legacy/EPR, 7.62mm legacy, all pistol calibers, 12 gauge shotgun
4	A106, A086, A091, A093, A363, AA49, AC20, AC22, A260, A400, A404, A475, A483, A482, CIV 357, CIV 40	All pistol calibers
5	A059, AB57, AB58, AB77, A056, A062, A064, A143, A363, AA49, AC20, AC22, A260, A106, A086, A091, A093, A400, A404, A475, A483, A482, A011, A014, A017, A023, AA54, CIV 357, CIV 40	5.56mm legacy/EPR, 7.62mm legacy, all pistol calibers, 12 gauge shotgun
5A	A059, AB57, AB58, AB77, A056, A062, A064, A143, A363, AA49, AC20, AC22, A260, A106, A086, A091, A093, A400, A404, A475, A483, A482, A011, A014, A017, A023, AA54, CIV 357, CIV 40	5.56mm legacy/EPR, 7.62mm legacy, all pistol calibers, 12 gauge shotgun
5C	A106, A086, A091, A093, A363, AA49, AC20, AC22, A260, A400, A404, A475, A483, A482, A011, A014, A017, A023, AA54, CIV 357, CIV 40	All pistol calibers, 12 gauge shotgun
6	A059, A056, A062, A064, AB57, AB58, AB77	5.56mm legacy/EPR (linked ammunition not authorized)
7	A106, A086, A091, A093, A363, AA49, AC20, AC22, A260, A400, A404, A475, A483, A482, CIV 357, CIV 40	All pistol calibers
8Q	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77	5.56mm legacy/EPR
8Z	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77	5.56mm legacy/EPR
9Q	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77	5.56mm legacy/EPR
9Z	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77	5.56mm legacy/EPR
10Z	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77	5.56mm legacy/EPR
11Q	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77	5.56mm legacy/EPR
12A	A059	5.56mm legacy (linked ammunition not authorized)
13	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77	5.56mm legacy/EPR
13A	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77	5.56mm legacy/EPR
14	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77	5.56mm legacy/EPR
14A	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77	5.56mm legacy/EPR
15	A106, A086, A091, A093, A363, AA49, AC20, AC22, A260, A400, A404, A475, A483, A482, A011, A014, A017, A023, AA54, CIV 357, CIV 40	All pistol calibers, 12 gauge shotgun
17	A011, A014, A017, A023, AA54	12 gauge shotgun
18	G811, G878	Practice Hand Grenade
18A	G811, G878	Practice Hand Grenade
19	G811, G878, G881, K143, J007	Practice Hand Grenade, Live Hand Grenade, Claymore Mine
20 (ST 3)	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77, B519, BA54	5.56mm legacy/EPR, 40mm TP
20 (ST 1,2,4,5)	All blank ammunition, pyro, smoke	No live fire authorized, blank fire only
23A	G881	Practice Hand Grenade, Live Hand Grenade
23C	AT-4, SMAW, Carl Gustaf, and Sub-caliber Training Launchers	Shoulder fired rockets
23D	B568, B569, B574	40mm TP and HE (linked ammunition not authorized)
24A	A143, AB79, AB86	7.62mm legacy/EPR
24B	B542, B576, B584, BA38, BA55 and TOW missiles with INERT warheads	40mm TP and HE (linked), INERT TOW missile
27	All blank ammunition	No live fire authorized, blank fire only
30	All blank ammunition, pyro, smoke	No live fire authorized, blank fire only
31	B519, BA54	40mm TP (linked ammunition not authorized)
32	A059, A363, AA49, AC20, AC22, A260, A400, A404, A475, A483, A482, CIV 357, CIV 40	5.56mm legacy, 9mm, .357cal, .38cal, .40cal, .45cal
33	A011, AA54, AA64, Demolitions not to exceed 5lbs NEW	12 gauge breaching rounds, DET Cord
34	A059, A056, A062, A063, A064, AB57, AB58, AB74, AB77, A143, AB79, AB86, B519, BA54	5.56mm legacy/EPR, 7.62mm legacy/EPR, 40mm TP (linked ammunition not authorized)
35	A064, AB73, A062, AB56, A143, AB79, AB86, A555, A557, B584, BA30, BA55	5.56mm legacy/EPR, 7.62mm legacy/EPR/special ball, .50cal, 40mm TP (linked authorized)
36	A064, AB73, A062, AB56, A143, AB79, AB86, A555, A557, B584, BA30, BA55	5.56mm legacy/EPR, 7.62mm legacy/EPR/special ball, .50cal, 40mm TP (linked authorized)
37	A064, AB73, A062, AB56, A143, AB79, AB86, A111, A191, AC33, AC32	5.56mm legacy/EPR, 7.62mm legacy/EPR/special ball, 300 WIN MAG
38	PL34, PL53, PL64, A064, A062, A143, A555, A557, B584, BA30, BA55, C785	INERT Javelin, 5.56mm legacy, 7.62mm legacy, .50cal, 40mm TP (linked), 120mm HEAT
DEMO B	Explosives not to exceed 45lbs NEW	C4, TNT, Shaped Charge, Bangalore Kit, DET Cord
DEMO D	Explosives not to exceed 100lbs NEW	C4, TNT, Shaped Charge, Cratering Charge, Bangalore Kit, DET Cord

Figure 3-1 Authorized Ammunition by Range

### 3-2. Control

a. Ammunition and explosives will 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 Ammunition Supply Point (ASP). This includes misfired or damaged ordnance.

b. All Class I and Class II ammunition will have an armed guard accompanied by a Sergeant of the Guard, who holds the rank of E5 or above.

c. Units will not indiscriminately fire (SPEND EX) or dump ammunition to avoid turn-in to the ASP.

d. Munitions containing phosphorous will not be fired or dropped into any body of water.

e. Units will not issue blank and live ammunition from the same location at the same time. When utilizing blank and live ammunition on the same range units will mark blank magazines with blue markings (paint, tape, etc.) Units will not issue Enhanced Performance Rounds (M855A1, M80A1) and non EPR rounds (M855, M80) from the same location at the same time.

f. Ammunition will not be stored in the cantonment area without prior approval from the Garrison Commander. Only the AHA or approved field storage sites are authorized for ammunition storage.

g. Units bringing ammunition from off post will have their ammunition inspected by the FTIG ASP prior to use.

### 3-3. Transportation

a. Transported ammunition will be:

(1) Handled by trained and competent personnel who are familiar with the applicable safety regulations and on vehicles that

are inspected by qualified individuals IAW DD Form 626. Ammunition compatibility will be maintained on all vehicles as determined by Joint Hazard Classification System.

(2) Driven with extreme care by a driver and assistant driver who are both HAZMAT qualified in a vehicle properly placarded, equipped with chock blocks, highway warning markers, and no fewer than two Class 10-BC rated portable fire extinguishers.

(3) Transported to and from the ASP with FTIG Regulation 700-4 and all other HAZMAT transportation regulations.

(4) Secured IAW approved AMC drawing to prevent shifting by installing dunnage between the ammunition/explosives and the metal bed of the vehicle.

*b.* Transported ammunition will not be:

(1) Left unattended.

(2) Transported with other personnel, equipment, or hazardous cargo.

(3) Transported through cantonment.

*c.* Combat uploading will be performed at field staging areas on military vehicles designed for carrying ammunition; combat uploading is prohibited at the ASP. Ammunition will be loaded in vehicle ammunition racks, in a combat configuration or transported by prime movers for towed artillery, if properly stored in its original containers. Commanders will ensure uploaded vehicles remain on the installation and avoid troop concentrations, housing/billet areas, federal, state, and county thoroughfares, or other heavily populated areas, specifically SR 443, Tomstown Road, Cold Springs Road, and Neuin's Lane. Vehicles will park at least 50 feet from all other vehicles.

*d.* If a fire occurs on a vehicle transporting ammunition and/or explosives on the installation, the following actions will be taken:

(1) Stop the vehicle away from populated areas.

(a.) If the fire has not reached the ammunition and/or explosives, safely attempt to extinguish the fire.

(b.) If the ammunition and/or explosives become compromised, secure a perimeter of 5,000 feet and restrict all access around the site; evacuate the area IAW the appropriate Emergency Response Guide.

(2) Notify Range Operations at (717) 861-2152/2153 in order for emergency response personnel to be dispatched to assist.

(3) Inform emergency response personnel on the contents of the vehicle or trailer.

### **3-4. Field Storage**

*a.* Units establishing a Field AHA will submit an overlay of the site and a list of DODIC(s) to Range Operations and the QASAS for approval; request must be submitted no less than 14 days prior to execution.

*b.* Storage of ammunition and explosives will meet the requirements in DA PAM 385-64.

*c.* The ASP will conduct inspections of Field AHAs while in operation.

*d.* Field AHAs will be scheduled IAW Chapter 1 and executed IAW Chapter 2.

*e.* White Phosphorous ammunition in Field AHAs will be stored on its base, nose up, and no closer than 100 meters to any other ammunition, explosives, or flammables.

*f.* Guarding of ammunition on ranges and training areas continuously overnight is prohibited when Range Operations is not conducting 24 hour operations.

*g.* Units are prohibited from storing ammunition that is not authorized to be fired on that specific range; e.g. .50 CAL ammunition is not authorized on Range 11Q, therefore a unit cannot store .50 CAL ammunition on Range 11Q.

### **3-5. Ammunition Supply Holding Area (AHA) and Ammunition Supply Point (ASP)**

*a.* The AHA is located at 18T UK 63244 78266; use of the AHA is coordinated with the ASP. Units guarding ammunition at the AHA do not have to meet the requirements of this publication as it pertains to scheduling, execution and communication with Range Operations.

*b.* The AHA is equipped with a land line telephone; in the event of an emergency, units will contact the FTIG Police at (717) 861-2727. The AHA land line phone number is (717)-861-5509.

*c.* Compatibility of ammunition will be adhered to when returning ammunition to the ASP.

*d.* Commercial carriers are permitted in the AHA, Units are not responsible for commercial carriers.

*e.* Units utilizing the AHA will ensure:

(1) Vehicles are equipped with two, 10lb BC fire extinguishers

(2) Vehicles display the proper hazard placards on the front, back, and sides of the vehicle.

(3) Vehicles are properly loaded and ammunition is adequately covered.

(4) Guard details, not to exceed 4 personnel per vehicle, are all AMMO 67 and AMMO 108 certified and licensed for the vehicle being utilized.

(5) Ammunition and vehicles are guarded at all times.

(6) Guard details report the following to the ASP or the FTIG Police:

- (a.) Unusual activity around the AHA or ASP to include suspicious personnel.
- (b.) Fires in or around the AHA or ASP.
- (c.) Unauthorized activities taking place in the AHA; e.g. smoking, consumption of alcohol, tampering of ammunition and/or components, etc.
- (d.) Unsecured gates, defective telephone or defective lighting.
- (e.) Suspicion the vehicle or ammunition guarded has been tampered with.
- f. The following items or activities are prohibited in the AHA:
  - (1) Refueling operations; vehicles must be towed or moved a minimum of 90 feet west on Ammo Road to be refueled.
  - (2) Fire or spark producing devices, smoking and fires for heating and/or cooking.
  - (3) Bivouacking.
  - (4) The accumulation of litter, packing material, and/or dunnage.
  - (5) Cameras or camera flashing equipment.
  - (6) Cell phones.

### **3-6. Safety**

- a. Units will safe guard ammunition from the elements by elevating it off the ground by at least 3 inches and using tarps to shield from direct sunlight and inclement weather.
- b. MK-19, 40mm link HE/TP should be stored at least 65 meters from the firing line IAW TM 9-1010-230-10.
- c. Unit will only prepare the amount of ammunition that is to be immediately fired.
- d. Smoking or possessing of spark or flame producing devices within 50 feet of firing pads, ammunition storage sites and weapons assembly sites 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. Weapons will be cleared, cleaned and physically inspected when transitioning between ammunition types e.g. blank to CCMCK, CCMCK to live, blank to live, 40mm TP to 40mm HE, etc.
- g. Spent smoke pots and smoke grenades will be collected and returned to the ASP.

### **3-7. Overhead fire**

- a. Overhead fire is considered non-standard, a NSTR will be completed IAW Chapter 2-17.
- b. Only ammunition lots listed in TB 9-1300-385 and approved by the ASP Manager, QASAS, and the RMA are authorized for flanking and/or overhead fire.
- c. Verification of ammunition is a unit commander, OIC, and RSO responsibility. The OIC's request for a Wet Code is his verification to Range Operations that the appropriate checks have been made.

### **3-8. Prohibited Ammunition**

- a. All ammunition and explosives will be used for the purpose for which it was manufactured. Any attempt of unorthodox use or to intentionally cause a malfunction is prohibited
- b. The use of non-standard ammunition is prohibited unless approved by the RMA and QASAS by way of a NSTR.
- c. Firing of Improved Conventional Munitions (ICM) for training or demonstration is prohibited.
- d. Firing of Depleted Uranium (DU) ammunition is prohibited.
- e. Live mines are prohibited with the exception of Claymores.

### **3-9. Damaged, defective or misfired ammunition**

- a. Damaged, defective, or misfired ammunition will not be fired.
- b. Units with damaged, defective, or misfire rates equal to or greater than the standard given in AR 75-1 will complete and submit a Malfunction Report, DA Form 4379, to Range Operations and the QASAS. The QASAS will determine appropriate actions. Defective ammunition typically includes, but is not limited to:
  - (1) 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.
- c. Damaged, defective, or misfired ammunition (40mm TP-T, 25mm and .50 Cal or smaller) will be kept at least 65 meters from all other ammunition, equipment, and personnel. It will be marked or tagged and returned to the ASP with appropriate turn-in documents and reports.
- d. For Class C malfunctions, including misfires and hang-fires, the OIC will supervise malfunctions to ensure compliance with applicable FMs and/or TMs and notify Range Operations of the situation and when it is resolved.

- e. For Class A or B malfunctions:
  - (1) the OIC/RSO will:
    - (a.) Immediately suspend firing and notify Range Operations.
    - (b.) Ensure the weapon, ammunition, explosives, and all components involved, including fragments, are carefully preserved in the position and location occupied at the time of the incident. Nothing will be touched or disturbed until released by the Range Management Authority, TACOM Armament Logistics Assistance Representative (LAR) and QASAS after performing a complete investigation.
    - (c.) Complete and submit a Malfunction Report, DA Form 4379, to Range Operations and the QASAS.
    - (d.) Await approval to commence live-fire until permission is granted by Range Operations and QASAS.
  - (2) Range Operations will:
    - (a.) Contact and report all known information to the SSO and QASAS.
    - (b.) Assist the unit in taking control of the site and all material and residue associated with the incident.
    - (c.) Assist the QASAS and SSO in completing initial and follow-on reports IAW AR 75-1 and DA PAM 385-40.

## Chapter 4 Direct Fire

### 4-1. Small arms and machine guns

This chapter describes safety directives for firing small arms and machine guns. Guidance is IAW AR 385-63, DA PAM 385-63 and all applicable training and weapon system publications. OICs and RSOs will ensure compliance with all applicable references, this publication and the facility SOP prior to live-fire operations. OICs and RSOs are encouraged to review Range SOPs prior to arriving; Range SOPs are located in the RFMSS library.

#### a. General Guidance:

- (1) All small arms and machine gun training will be conducted IAW their respective TCs.
- (2) All automated ranges utilize either the RETS or TRACR programs; program instruction guides are located in the range towers.
- (3) OICs will ensure all participants conducting live-fire utilize PPE level 0, IAW Table 1-3, at a minimum.
- (4) Units conducting Urban Rifle Marksmanship (URM) will have one lane safety per firer and ensure firing lines are clearly marked during limited visibility.
- (5) OICs will ensure weapons are cleaned IAW TM 9-6920-3700-10, when training with CCMCK or like munitions. Failure to inspect and clean the chamber and bore prior to firing service ammunition will result in injury to personnel or catastrophic damage to the weapon if marking projectiles remain lodged in the barrel.
- (6) The M249 is the only crew served weapon authorized to fire on Range Road.
- (7) OICs and RSOs will ensure proper PMIs are conducted to ensure firers are familiar with weapons being used.
- (8) RSOs will visually inspect M2A1 HMGs to ensure barrels are properly seated. Failure to properly seat the barrel will result in catastrophic damage to the weapon system and injury to the firer and crew.

#### b. Live Fire Shoot House (LFSH):

- (1) All live fire shoot house training will be conducted IAW all respective TCs.
- (2) Units will submit a High Hazard Authorization, FTIG Form 350-6 (see Figure 2-1) prior to LFSH training.
- (3) OICs will ensure that all personnel in the LFSH utilize PPE level 2, IAW Table 1-3, at a minimum.
- (4) Only weapons and ammunition outlined in Figure 3-1 of this regulation are authorized.
- (5) EPR ammunition is prohibited.
- (6) OICs, RSOs, Assistant Instructors (AIs) and Master Trainers will conduct an orientation brief with Range Operations no less than 2 weeks from execution.
- (7) LFSH training requires one AI per 3-5 personnel with a maximum of 10 personnel inside the shoot house during live-fire training.

c. *FTIG Capabilities:* The following tables outline the standard training capabilities and facilities by weapons system. Training outside of the established primary and alternate facilities requires submission of a NSTR IAW Chapter 2-17.

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**Table 4-1  
Pistol training facilities**

Training table	Primary facility(s)	Alternate facility(s)
Table I PMI&E	Garrison	N/A
Table II PLFS	EST II	N/A
Table III Drills	Garrison	N/A
Table IV Basic	3, 5, 5A, 5C, 13, 13A, 14, 14A	4, 7
Table V Practice	4, 7	3, 5, 5A, 5C
Table VI Qualification	4, 7	3, 5, 5A, 5C

**Table 4-2  
Shotgun training facilities**

Training	Primary facility(s)	Alternate facility(s)
Instruction/Qualification	3, 5, 15	13, 13A, 14, 14A
Breaching	33	N/A <sup>1</sup>

Note:

<sup>1</sup> Units may request portable, steel door frame IOT conduct shotgun breaching on MOUT facilities located throughout the installations by contacting Range Operations and submitting a NSTR.

**Table 4-3  
M4/M16/M249 training facilities**

Training table	Primary facility(s)	Alternate facility(s)
Table I PMI&E	Garrison	N/A
Table II PLFS	EST II	N/A
Table III Drills	Garrison	N/A
Table IV, Stage 1/2 Basic	8Z, 9Z, 10Z	3, 13, 13A, 14, 14A
Table IV, Stage 3/4 Basic	8Q, 9Q, 11Q	35, 36, 38
Table V Practice	8Q, 9Q, 11Q	35, 36, 38
Table VI Qualification	8Q, 9Q, 11Q	EST II for Stage 2 and 3

**Table 4-4  
M4/M16/M249 URM facilities**

Training table	Primary facility(s)	Alternate facility(s)
Table I PMI&E	Garrison	N/A
Table II PLFS	EST II	N/A
Table III Drills	Garrison	N/A
Table IV Basic	8Z, 9Z, 10Z	3, 13, 13A, 14, 14A
Table V Practice	8Z, 9Z, 10Z	3, 13, 13A, 14, 14A
Table VI Qualification	8Z, 9Z, 10Z	3, 13, 13A, 14, 14A

**Table 4-5  
M4/M16/M249 Assisted night fire facilities**

Training table	Primary facility(s)	Alternate facility(s)
Table I PMI&E	Garrison	N/A
Table II PLFS	EST II	N/A
Table III Drills	Garrison	N/A
Table IV, Stage 1/2 Basic	8Z, 9Z, 10Z	3, 13, 13A, 14, 14A
Table IV, Stage 3/4 Basic	8Q, 9Q, 11Q	35, 36, 38
Table V Practice	8Q, 9Q, 11Q	35, 36, 38
Table VI Qualification	8Q, 9Q, 11Q	N/A

**Table 4-6  
M2010/M110/M24/M25 training facilities**

Training table	Primary facility(s)	Alternate facility(s)
Table I PMI&E	Garrison	N/A
Table II PLFS	No EST Capabilities	N/A
Table III Drills	Garrison	N/A
Table IV, Stage 1/2 Basic	37	N/A
Table IV, Stage 3/4 Basic	37	N/A
Table V Practice	37	N/A
Table VI Qualification	37	N/A



**Table 4-7  
M240 training facilities**

Training table	Primary facility(s)	Alternate facility(s)
Table I PMI&E	Garrison	N/A
Table II PLFS	EST II	N/A
Table III Drills	Garrison	N/A
Table IV Basic	35, 36	38
Table V Practice	35, 36	38
Table VI Qualification	35, 36	38

**Table 4-8  
M107 training facilities**

Training table	Primary facility(s)	Alternate facility(s)
Table I PMI&E	Garrison	N/A
Table II PLFS	No EST Capabilities	N/A
Table III Drills	Garrison	N/A
Table IV Basic	35, 36	38
Table V Practice	35, 36	38
Table VI Qualification	35, 36	38

**Table 4-9  
M2 training facilities**

Training table	Primary facility(s)	Alternate facility(s)
Table I PMI&E	Garrison	N/A
Table II PLFS	EST II	N/A
Table III Drills	Garrison	N/A
Table IV Basic	35, 36	38
Table V Practice	35, 36	38
Table VI Qualification	35, 36	38

#### 4-2. Hand grenades and grenade launchers

This chapter describes safety directives for firing or employing grenades and grenade launchers. Guidance is IAW AR 385-63, DA PAM 385-63 and all applicable training and weapon system publications. OICs and RSOs will ensure compliance with all applicable references, this publication and the facility SOP prior to live-fire operations. OICs and RSOs are encouraged to review Range SOPs prior to arriving; Range SOPs are located in the RFMSS library.

*a. Grenades:*

- (1) All personnel throwing, handling or within 150 feet of casualty producing hand grenades will utilize PPE level 1, IAW Table 1-3, at a minimum.
- (2) Personnel will complete practice hand grenade training and display the knowledge and proficiency required for safe operation prior to live grenade training.
- (3) OICs will inspect containers for damage or corrosion; see Chapter 3 for inspecting and handling.
- (4) Grenades and grenade components will be handled and treated as live ammunition.
- (5) Grenades will be lifted by the body only. Do not remove any round from its container if the safety pin is not visible. Do not handle the round by the pull ring or safety pin. Notify Range Operations if a grenade is packed upside down, do not attempt to remove it from its container.
- (6) 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.
- (7) If a hand grenade fails to detonate, cease fire and contact Range Operations. All grenade duds will be disposed of by EOD. Units will guard duds until disposed of by EOD. If a dud occurs while training on RG 19, only the bay with the dud grenade will be restricted from further use. While training at RG 23A, further training is prohibited until the single throwing pit is cleared by EOD.

*b. Grenade launchers:*

- (1) All firers, crewmembers, AIs and personnel within 65 meters of the firing line of M203, M320 or MK19 grenade launchers will utilize PPE level 1, IAW Table 1-3, at a minimum.
- (2) Targets will not be engaged at ranges less than 75 meters with 40mm TP-T ammunition.
- (3) Grenade launcher duds will be reported to Range Operations immediately. Duds will be handled IAW Chapter 3-9 of this regulation.
- (4) Firing MK19s over open hatches is prohibited.
- (5) MK19s will have the feed throat assembly attached when firing.
- (6) RSOs will ensure that the proper lubricating oils are used.

c. *FTIG Capabilities*: The following tables outline the standard training capabilities and facilities by weapon system. Training outside of the established primary and alternate facilities require submission of a NSTR as outlined in Chapter 2-17.

**Table 4-10**  
**MK19<sup>1</sup> training facilities**

Training tables	Primary facility(s)	Alternate facility(s)
Table I PMI&E	Garrison	N/A
Table II PLFS	EST II	N/A
Table III Drills	Garrison	N/A
Table IV Basic	35, 36	38
Table V Practice	35, 36	38
Table VI Qualification	35, 36	38
HE Familiarization	24B	N/A

Notes:

<sup>1</sup>All table of fire will be conducted with TP-T ammunition; the only authorized facility to accommodate HE ammunition is 24B for familiarization purposes.

**Table 4-11**  
**M320/M203<sup>1</sup> training facilities**

Training	Primary facility(s)	Alternate facility(s)
Instruction/Qualification	2 <sup>1</sup>	31
HE Familiarization	23D	N/A

Notes:

<sup>1</sup>The only authorized 40mm ammunition on RG 2 is TP-T.

**Table 4-12**  
**Hand Grenade training facilities**

Training	Primary facility(s)	Alternate facility(s)
Instruction/Qualification	18, 18A	N/A
HE Familiarization	19	23A

### 4-3. Shoulder fired munitions

This chapter describes safety directives for firing shoulder fired munitions. Guidance is IAW AR 385-63, DA PAM 385-63 and all applicable training and weapon system publications. OICs and RSOs will ensure compliance with all applicable references, this publication and the facility SOP prior to live-fire operations. OICs and RSOs are encouraged to review Range SOPs prior to arriving; Range SOPs are located in the RFMSS library. All anti-tank rocket and recoilless rifle training will be conducted IAW their respective TCs.

a. *General guidance*:

- (1) OICs will ensure all personnel on the firing line utilize PPE level 1 with the addition of double hearing protection, IAW Table 1-3.
- (2) All guided missile (Javelin/TOW) firing is considered non-standard training and requires a NSTR IAW Chapter 2-17.
- (3) Back blast areas will be marked and cleared of personnel, equipment and heavy foliage prior to live-fire. Back blast areas will be doubled when temperatures are below 32° F.
- (4) Shoulder launched rockets will be loaded, prepared and unloaded on the firing line with the muzzle oriented downrange.
- (5) Anti-tank rockets, recoilless rifles, TOW and Javelin missiles are prohibited from overhead fire.
- (6) Anti-tank rocket and recoilless rifle miss-fire procedures will be conducted IAW with their respective manuals and publications. If a rocket fails to fire after all misfire procedures, contact Range operations immediately. Units will guard misfired munitions until disposed of by EOD.
- (7) Personnel will be trained and qualified on the weapon system in order to participate in live-fire exercises.
- (8) Precautions covering specific types of material, items, or components outlined in the applicable weapon system manuals will be followed.
- (9) The unit and Range Operations will ensure the SDZ is cleared of non-participating personnel prior to TOW and Javelin live-fire.
- (10) Ground fired missiles will not be fired from buildings or within 100 meters of a vertical or near vertical backstop.
- (11) 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.
- (12) Guided missiles will not be fired at any targets towed by manned vehicles.

b. *Misfire, hang fire and malfunctions*:

(1) Misfires, hang fires, and malfunctions will be handled IAW weapon/ammunition specific publications, unit SOP and Chapter 3. Units will report and submit a Malfunction Report, DA Form 4379, for all misfire, hang fires, and malfunctions to Range Operations.

(2) OICs will ensure the following actions are taken in the event of a failure to fire, until the system is rendered safe:

(a.) Cease fire and notify Range Operations.

(b.) Aim the launcher to a safe field of fire, down range, and ensure personnel are clear of the trajectory and path of motor exhaust.

(c.) Wait the prescribed minimum safety interval as directed by the appropriate TM/FM, whichever is longer, before approaching the missile.

(3) If the firing, tracking, guidance or safety system equipment or components malfunction during the preparation or firing sequence, operations will be suspended and the missile will not be fired until the equipment is repaired and functioning IAW the appropriate references.

(4) Multiple malfunctioning missiles from a single lot require the entire lot be suspended immediately. 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 and the QASAS.

*c. TOW specific firing conditions:*

(1) TOW missile training will be conducted IAW TC 3-22.32.

(2) Only practice/inert warheads are authorized on the installation.

(a.) Area H is not required for the practice/inert warheads equipped with an enhanced missile ordnance inhibiting circuit (EMOIC).

(b.) 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 and all personnel will be verified clear of this area prior to firing.

(c.) Units firing TOW missiles will complete and submit a Missile Firing Data Report, DA FORM 7213-R, IAW DA PAM 700-16 to the ASP. Contact Range Operations for assistance in completing form.

(3) Only personnel actively engaged in firing and controlling TOW missiles are permitted in the SDZ. The unit commander, with Range Operations approval, 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 will wear a minimum of PPE Level 1, IAW with Table 1-3.

(4) 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.

(5) TOW 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.

(6) 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.

*d. Javelin specific firing conditions:*

(1) Javelin missile training will be conducted IAW TC 3-22.37

(2) 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 and all personnel will be verified clear of this area prior to firing.

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

(4) All non-essential personnel will not stand within 100 meters of the Javelin.

(5) Personnel engaged in firing or supervising Javelin missile training will wear a minimum of PPE Level 1, IAW Table 1-3 of this regulation.

(6) Units firing Javelin missiles will complete and submit a Missile Firing Data Report, DA FORM 3474, IAW DA PAM 700-16 to the ASP. Contact Range Operations for assistance in completing form.

*e. Anti-tank Weapons Effect Signature Simulator (ATWESS)*

(1) Units will employ ATWESS cartridges IAW TM 9-1370-207-10.

(2) ATWESS devices will not be armed until ready to fire

(3) ATWESS may fail to function from a severe jolt.

(4) OICs will ensure that all personnel on the firing line utilize PPE level 0, IAW Table 1-3, at a minimum.

(5) ATWESS will be inspected for damage prior to use.

*f. FTIG Capabilities:* The following table outlines the standard training capabilities and facilities by weapon system. Training outside of the established primary and alternate facilities and/or the firing of guided missiles require submission of a NSTR as outlined in Chapter 2-17.

**Table 4-13**  
**Shoulder fired rocket training facilities**

<b>Weapons system</b>	<b>Primary Range(s)</b>	<b>Alternate Range(s)</b>
AT4 (HE)	23C	N/A
AT4 (Sub-caliber)	38	N/A
Carl Gustaf (HE)	23C	N/A
Carl Gustaf (Sub-caliber)	27	N/A
Javelin <sup>1</sup> (HE) Familiarization	38	N/A
SMAW (HE)	23C	N/A
TOW <sup>1</sup> (Practice/INERT) Familiarization	24B TOW	N/A

Note:

<sup>1</sup>Firing of guided missiles require a NSTR IAW Chapter 2-17

#### **4-4. Tank Gunnery**

*a.* FTIG does not have an approved live-fire Tank Gunnery Range

*b.* Range 27 is the installations MILES LTIDS range. RG 27 is equipped with RETS operated targets, a range tower with forward looking infrared (FLIR) and an administration area. Units will schedule RG 27 NLT 6 months from execution, because of its location down range of RG 36. Weapons and ammunition authorized:

- (1) MILES interfaced weapons systems equipped with an eye-safe Laser Range Finder (LRF) or filter.
- (2) Coaxial weapons.
- (3) Blank 7.62mm (A111).
- (4) Blank .50 CAL (A598).
- (5) ATWSS (L367).

*c.* FTIG can support 25mm live fire familiarization at RG 37.

### **Chapter 5**

#### **Indirect fire (IDF)**

##### **5-1. General**

This chapter describes safety directives to conduct Indirect Fires (IDF), artillery and mortars, on the installation. Guidance is IAW AR 385-63, DA PAM 385-63 and all applicable training and weapon system publications. OICs and RSOs will ensure compliance with all applicable references, this publication and the facility SOP prior to live-fire operations. OICs and RSOs are encouraged to review Range SOPs prior to arriving; Range SOPs are located in the RFMSS library. Indirect Fire units will ensure personnel remain certified and be prepared to furnish certificates upon request by Range Operations.

*a.* Units will provide the maximum ordinance (MAX ORD) of each firing point to Range Operations 14 days prior to live-fire events.

*b.* IDF live-fire requires R5802B (surface to 13,000 feet MSL). Units requiring MAX ORDs above 13,000 feet MSL, not to exceed 16,500 feet MSL, will annotate their requirements in the comments section of their RFMSS request and coordinate with the Airspace Manager 45 days prior to ensure activation of R5802C (500 feet AGL to 16999 feet MSL). See Chapter 8 for additional airspace information.

*c.* Units will display a red flag during daylight hours or a red light during limited visibility whenever Firing Points (FPs) are occupied with artillery or mortar munitions, regardless of firing status.

*d.* IDF used in support of (ISO) maneuver forces conducting live-fire exercises or mortar units conducting hip shoots/maneuver boxes are considered non-standard and requires a NSTR IAW Chapter 2-17.

*e.* Hip shoots will be done within 100 meters from surveyed Firing Point markers

*f.* Surveyed Firing Points are marked with 105 mm shells as the surveyed monument.

*g.* Units may conduct Dry shoots at any scheduled location.

*h.* Mortar OICs must be an Infantry Mortar Leader's Course (IMLC) graduate, and should be a platoon leader, platoon sergeant, or section leader.

*i.* Units will not fire rounds impacting closer than 800 meters from unprotected personnel without Range Operations permission.

*j.* Artillery and mortars will use two aiming devices when laying the firing unit on the azimuth of fire. The only two acceptable means to determine the azimuth of fire is the Aiming Circle or the GLPS. The two means must be declinated and

agree within 10 mils.

k. A minimum of 1 weapon system or aiming device will be within 100 meters of the FP survey marker. All weapons and aiming devices must be within 400 meters of the FP survey marker.

l. Units will fire the first round at each FP at a target or grid near the center of the Safety Target Box. Safe impact of this round will be reported to Range Operations as "First Round Observed Safe".

m. Piece settings will remain as last announced, until a subsequent command is given by the Fire Direction Center (FDC).

## 5-2. Responsibilities

The following responsibilities are specific to IDF and are in addition to the responsibilities listed in Chapter 1 and the requirements found in Chapter 2.

a. *The OIC will:*

- (1) Ensure live-fire is completed IAW applicable regulatory guidance.
- (2) Verify safety aids are properly emplaced and utilized in accordance Chapter 5-5.
- (3) Maintain Safety Ts IAW Chapter 5-5.
- (4) Ensure the safety diagram is depicted on a chart in the FDC and that the officer in charge of the FDC has the safety card data on the firing charts and entered in the computer.
- (5) Supervise and report misfires, hang fires and malfunctions IAW Chapter 3.
- (6) Verify that the target grids for all fire missions fall within the safety fan and provided target box. The OIC's verification may be assisted by the FDO, however, the OIC retains overall responsibility.
- (7) Ensure all rounds impact within the prescribed target box. Units who fail to have a round impact within their prescribed Safety Target Box will follow the procedures outlined in Chapter 5-9.
- (8) Control access to danger areas by gates, barriers and guards as directed by Range Operations. Units conducting tests or exercises in a Dry Status may coordinate with Range Operations to leave certain areas unsecured.

b. *The RSO will:*

- (1) 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 and verify the Safety T for each section is accurate and in possession of the section chief.
- (2) Verify the lay of the weapons with two properly declinated instruments.
- (3) Verify the correct firing position locations, referred deflections, positioning of the collimator and/or aiming posts, XO's min QE, ammunition to be fire, and that all other necessary items and procedures are accomplished prior to live-fire.
- (4) Ensure pre-fire checks are properly performed on each weapon and ammunition lots are separated to avoid firing of mixed lots.
- (5) Verify in the weapon log book that a bore scope has been performed according to current regulatory guidance.
- (6) Visually check for parallel lay and supervise the emplacement of safety aids such as stakes, tape, etc.
- (7) Verify a Wet Code has been obtained.
- (8) Ensure all required safety checks are performed.
- (9) Supervise the burning of excess propellant.

c. *Forward Observers (FO) will:*

- (1) Maintain a copy of the safety limits.
- (2) Observe the round's impact.
- (3) Maintain a record of fire for each mission.
- (4) Maintain communications with the FDC at all times.
- (5) Report to Range Operations "First Round Observed Safe" for each separate firing point.
- (6) When firing during limited visibility and radar is being used, a FO is required at the OP to confirm impact by sound in the event of radar malfunction. Radars producing unsafe amounts of radiation will be cordoned off to prevent personnel from entering those areas.

d. *Fire Direction Center (FDC) will:*

- (1) Determine the following safety limits that apply to any weapon system within a 400 meter radius of the FP:
  - (a.) The azimuth to the left and right interior edges of the provided target box.
  - (b.) The minimum quadrant elevation (QE).
  - (c.) The maximum QE.
  - (d.) The minimum time setting for time fuses.
- (2) Ensure that a correct safety diagram is displayed on a chart in the FDC and have the safety card data displayed on the firing charts and entered in the computer as appropriate.
- (3) Maintain voice communications with the OP at all times.

**5-3. Declination**

a. FTIG has 3 declination stations; Declination Station A is located in TA A-16, Declination Station B is located in TA B-11A and Declination Station D is located in TA D-03C. See Figures 5-1 through 5-3 for additional declination station information.

b. Declination station azimuth information marks (AZ MK) are found in the FTIG Trig List book and on signage located at each declination station.

c. Aiming circles will be re-declinated after an electrical storm, anytime the instrument has received a severe shock, anytime the instrument is moved outside a 25-mile radius from the area in which it was last declinated, minimum once every 30 days, when the instrument is first received and anytime the instrument returns from repair.

d. Units will declinate compasses in conjunction with current regulatory guidance and the latest Fort Indiantown Gap Military Installation Map (MIM). M2 compasses will not be used as the sole method of lay in for live-fire.

ARTILLERY SURVEY CONTROL POINT			
For use of this form, see ATP 3-09.02; the proponent agency is TRADOC.			
UTM ZONE 18 T	UTM SQUARE UK	STATION NAME DECLINATION STATION A	ACCURACY E + N 1 in 100000 AZIMUTH 1 in 100000 ALTITUDE 1 in 100000
		STATION NUMBER 1	
		MAP SERIES SHEET NO 1 OF 23	
HOW MARKED 105 MM SHELL SET IN CONCRETE	E 368244.780m	N 4478355.112m	147.66m ALTITUDE
	LONGITUDE 76° 33' 13.10759" W	LATITUDE 40° 26' 43.50303" N	
NOTES	<p><b>N</b> LOCATION DIAGRAM ↑ -See FTIG Trig List for Diagram</p> <p><b>WARNING</b> THERE ARE DIFFERENT WAYS OF WRITING THE NUMBERS 17 AND 17.</p>		

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APD LC v1.00

DESCRIPTION	SKETCH	DISTANCE	GRID BEARING/AZIMUTH
CENTER LINE OF DOUBLE ELLIPSOIDAL R/W/B WATER TANK	-See FTIG Trig List for sketch	2157m	MILS 3637.7185
			DEGREES 206° 38' 48"
			GRADS
AIR TRAFFIC CONTROL TOWER CENTER LINE OF LIGHT	-See FTIG Trig List for sketch	1569m	MILS 4248.7012
			DEGREES 238° 59' 22"
			GRADS
CENTER LINE OF RED AND WHITE WATER TOWER	-See FTIG Trig List for sketch	3268m	MILS 4333.6889
			DEGREES 243° 46' 12"
			GRADS
105 MM SHELL SET IN CONCRETE, OP MEDINA	-See FTIG Trig List for sketch	5225m	MILS 5503.5160
			DEGREES 309° 34' 22"
			GRADS
105 MM SHELL SET IN CONCRETE, FP B-10-05	-See FTIG Trig List for sketch	5317m	MILS 5200.3704
			DEGREES 292° 31' 15"
			GRADS
METHOD OF DETERMINATION		UNIT	AXIS GEOSPATIAL LLC
HORIZONTAL GPS	PREPARED		C. HOJNOWSKI, G. SHEA
VERTICAL GPS	CHECKED		WILLIAM T. DERRY, P.L.S.
AZIMUTH ORIENTATION GPS/T 1610	DATE		10/11/17
NOTEBOOK REFERENCE AXIS GEOSPATIAL PROJECT # 17213-1701			

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**Figure 5-1 Declination Station A**

Note: MGRS grid coordinates for Declination Station A: 18T UK 68244 78355

ARTILLERY SURVEY CONTROL POINT			
For use of this form, see ATP 3-09.02; the proponent agency is TRADOC.			
UTM ZONE 18T	UTM SQUARE UK	STATION NAME <b>DECLINATION STATION B</b>	ACCURACY E + N 1 in 100000 AZIMUTH 1 in 100000 ALTITUDE 1 in 100000
		STATION NUMBER 17	
		MAP SERIES SHEET NO 2 OF 23	
HOW MARKED 105 MM SHELL SET IN CONCRETE	E 363091.438m	N 4479494.002m	ALTITUDE 214.69m
	LONGITUDE 76° 36' 52.67378" W	LATITUDE 40° 27' 17.42852" N	
NOTES	<p><b>N</b> LOCATION DIAGRAM ↑ -See FTIG Trig List for Diagram</p> <p><b>WARNING</b> THERE ARE DIFFERENT WAYS OF WRITING THE NUMBERS 17 AND 17.</p>		

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Page 1  
APD LC v1.00

DESCRIPTION	SKETCH	DISTANCE	GRID BEARING/AZIMUTH
ANTENNA ON BROWN OUT BUILDING	-See FTIG Trig List for Sketch	511m	MILS 3507.7926 DEGREES 197° 18' 48" GRADS
ANTENNA ON RADIO TOWER	-See FTIG Trig List for Sketch	4665m	MILS 3872.2370 DEGREES 217° 48' 48" GRADS
ANTENNA ON OBSERVATION TOWER	-See FTIG Trig List for Sketch	3770m	MILS 3987.4864 DEGREES 224° 17' 46" GRADS
105 MM SHELL SET IN CONCRETE, FP B-11-04	-See FTIG Trig List for Sketch	218.93m	MILS 0.3259 DEGREES 0° 01' 06" GRADS
105 MM SHELL SET IN CONCRETE, FP C-04-04	-See FTIG Trig List for Sketch	1061.08m	MILS 4071.4963 DEGREES 229° 01' 18" GRADS
METHOD OF DETERMINATION		UNIT AXIS GEOSPATIAL LLC	
HORIZONTAL GPS	PREPARED C. HOJNOWSKI, G. SHEA		
VERTICAL GPS	CHECKED WILLIAM T. DERRY, P.L.S.		
AZIMUTH/ORIENTATION GPS/T 1610	DATE 10/11/17		
NOTEBOOK REFERENCE AXIS GEOSPATIAL PROJECT # 17213-1701			

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APD LC v1.00

**Figure 5-2 Declination Station B**

Note: MGRS grid coordinates for Declination Station B: 18T UK 63091 79494

ARTILLERY SURVEY CONTROL POINT			
For use of this form, see ATP 3-09.02; the proponent agency is TRADOC.			
UTM ZONE 18 T	UTM SQUARE UK	STATION NAME DECLINATION STATION D	
		STATION NUMBER 29	
		MAP SERIES SHEET NO 3 OF 23	
HOW MARKED 105 MM SHELL SET IN CONCRETE		E 354087.924m	N 4474574.489m
		LONGITUDE 76° 43' 10.70904" W	LATITUDE 40° 24' 32.43266" N
		ALTIMITUDE 189.63m	
NOTES  <div style="text-align: center;"> <b>N</b>            LOCATION DIAGRAM            -See FTIG Trig List for Diagram         </div> <div style="text-align: center;"> <b>WARNING</b>            THERE ARE DIFFERENT            WAYS OF WRITING            THE NUMBERS            17 AND 17.         </div>			

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DESCRIPTION	SKETCH	DISTANCE	GRID BEARING/AZIMUTH
ANTENNA TOWER A	-See FTIG Trig List for Sketch	3193m	MILS 1767.8519 DEGREES 99° 26' 30" GRADS
ANTENNA TOWER B	-See FTIG Trig List for Sketch	3118m	MILS 1772.8198 DEGREES 99° 43' 16" GRADS
CENTER LINE OF LIGHT ON ANTENNA TOWER C	-See FTIG Trig List for Sketch	506m	MILS 3441.6691 DEGREES 193° 35' 38" GRADS
105 MM SHELL SET IN CONCRETE, FP D-03-10	-See FTIG Trig List for Sketch	579.39m	MILS 104.0459 DEGREES 5° 51' 09.3" GRADS
105 MM SHELL SET IN CONCRETE, FP D-03-08	-See FTIG Trig List for Sketch	89.32m	MILS 2188.5768 DEGREES 123° 06' 26.8" GRADS
METHOD OF DETERMINATION		UNIT AXIS GEOSPATIAL LLC	
HORIZONTAL GPS		PREPARED C. HOINOWSKI, G. SHEA	
VERTICAL GPS		CHECKED WILLIAM T. DERRY, P.L.S.	
AZIMUTH/ORIENTATION GPS/T 1610		DATE 10/11/17	
NOTEBOOK REFERENCE AXIS GEOSPATIAL PROJECT # 17213-1701			

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**Figure 5-3 Declination Station D**

Note: MGRS grid coordinate for Declination Station D: 18T UK 54087 74574

#### 5-4. Target Boxes, Firing Points and Observation Posts

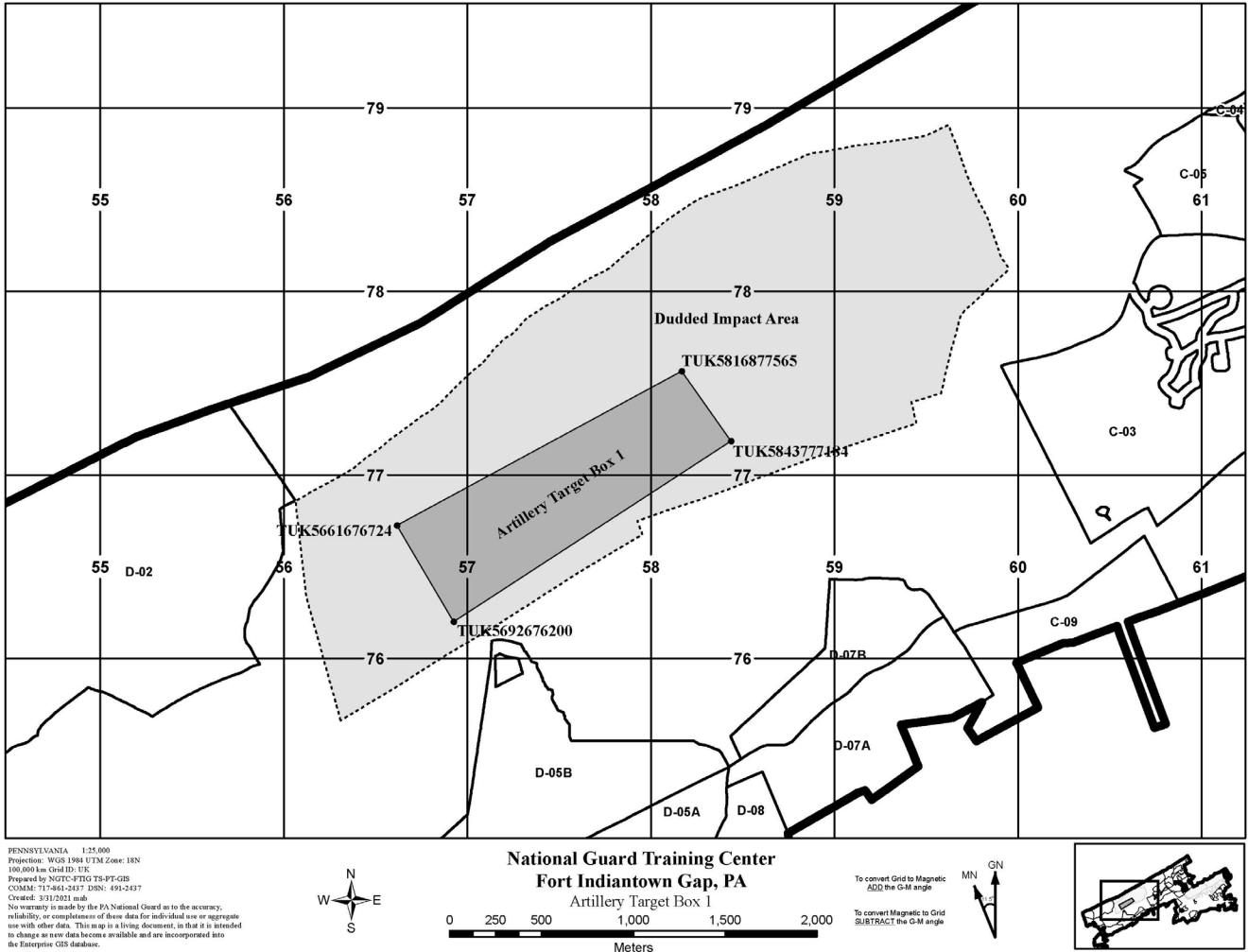
Reference Table 5-1 for the complete list of the installation's Firing Points (FPs) and Target Boxes and Table 5-2 for the installation's Observation Posts (OPs).

*a. Target Boxes:*

(1) FTIG has 6 Target Boxes (Figures 5-4 through 5-9). Due to the size and composition of the training corridor, pre-determined Target Boxes have been established to maximize the number of FPs available while ensuring IDF SDZs remain on the installation. Target Box assignment is based off the location of the FP.

(2) Units are prohibited from establishing target areas outside of their designated Target Box.





**Figure 5-4 Target Box 1**

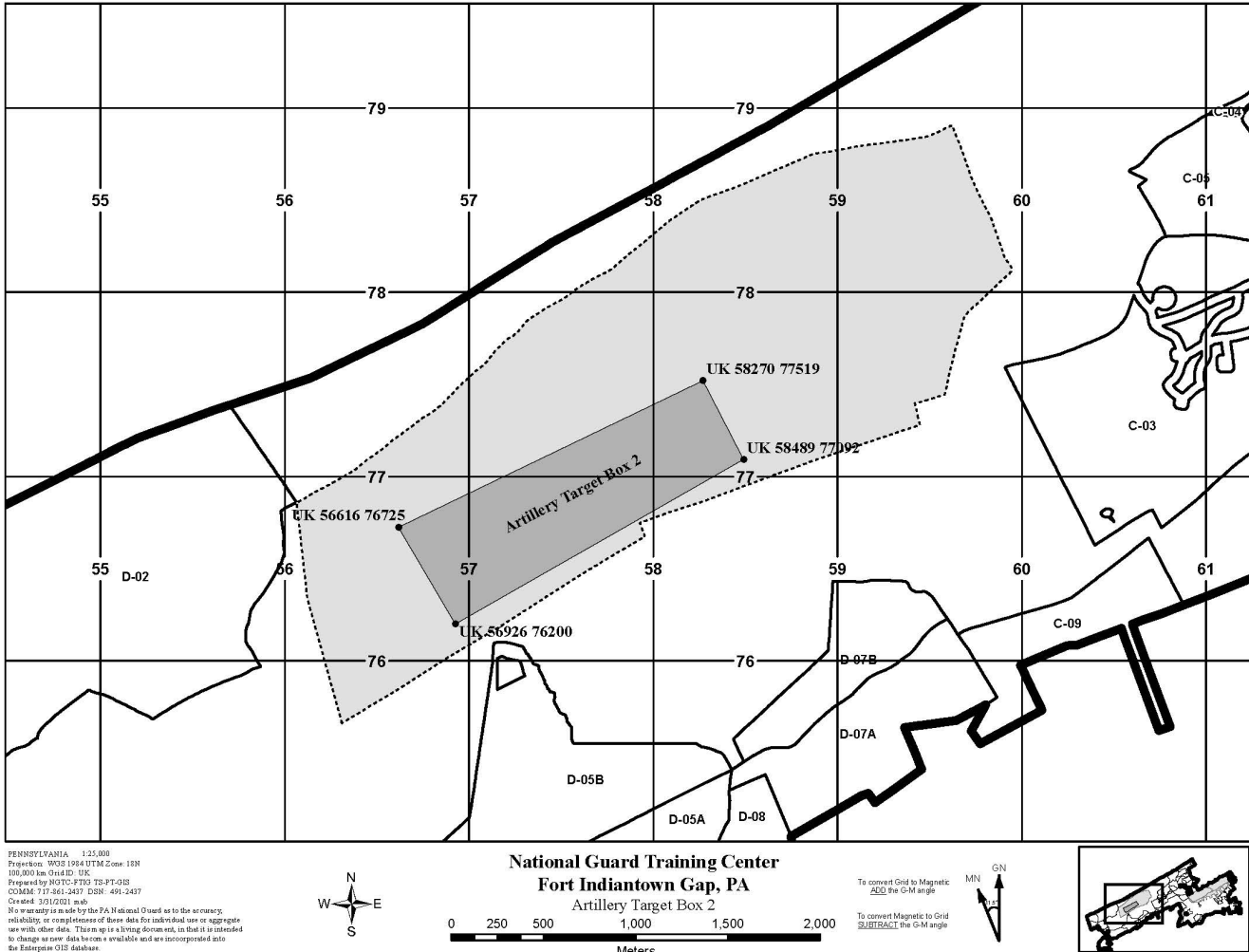
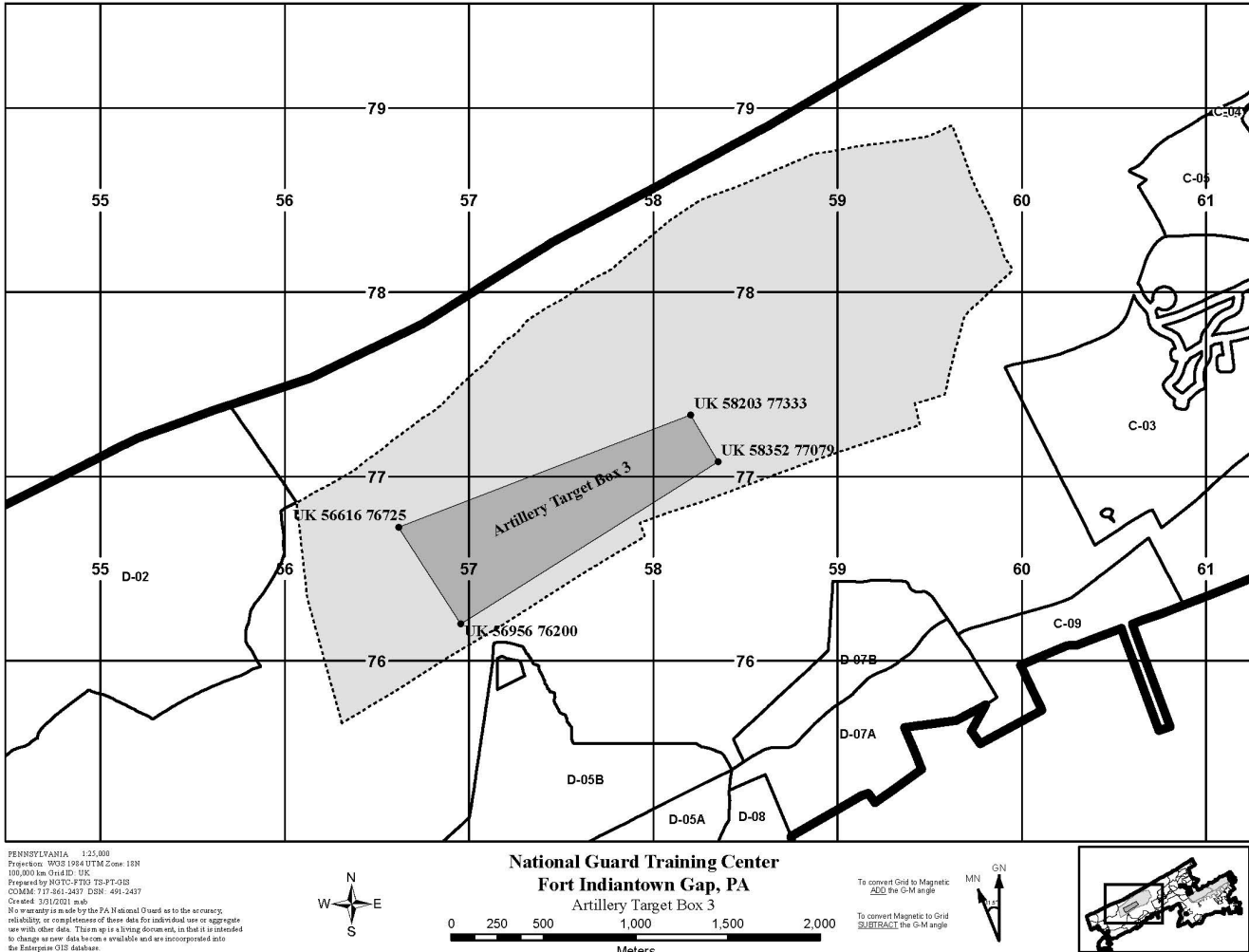


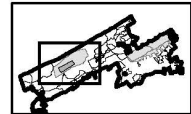
Figure 5-5 Target Box 2



PENNSYLVANIA 1:25,000  
 Projection: WGS 1984 UTM Zone 18N  
 100,000 km G14 ID: UK  
 Prepared by: ROTIC-PTG TS-PT-015  
 COMBAT 717-661-2637 DSN: 491-2437  
 Created: 3/12/2011 mbh  
 No warranty is made by the PA National Guard as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. This map is a living document, in that it is intended to change as new data becomes available and are incorporated into the Enterprise GIS database.



To convert Grid to Magnetic  
 ADD the G-M angle  
 To convert Magnetic to Grid  
 SUBTRACT the G-M angle



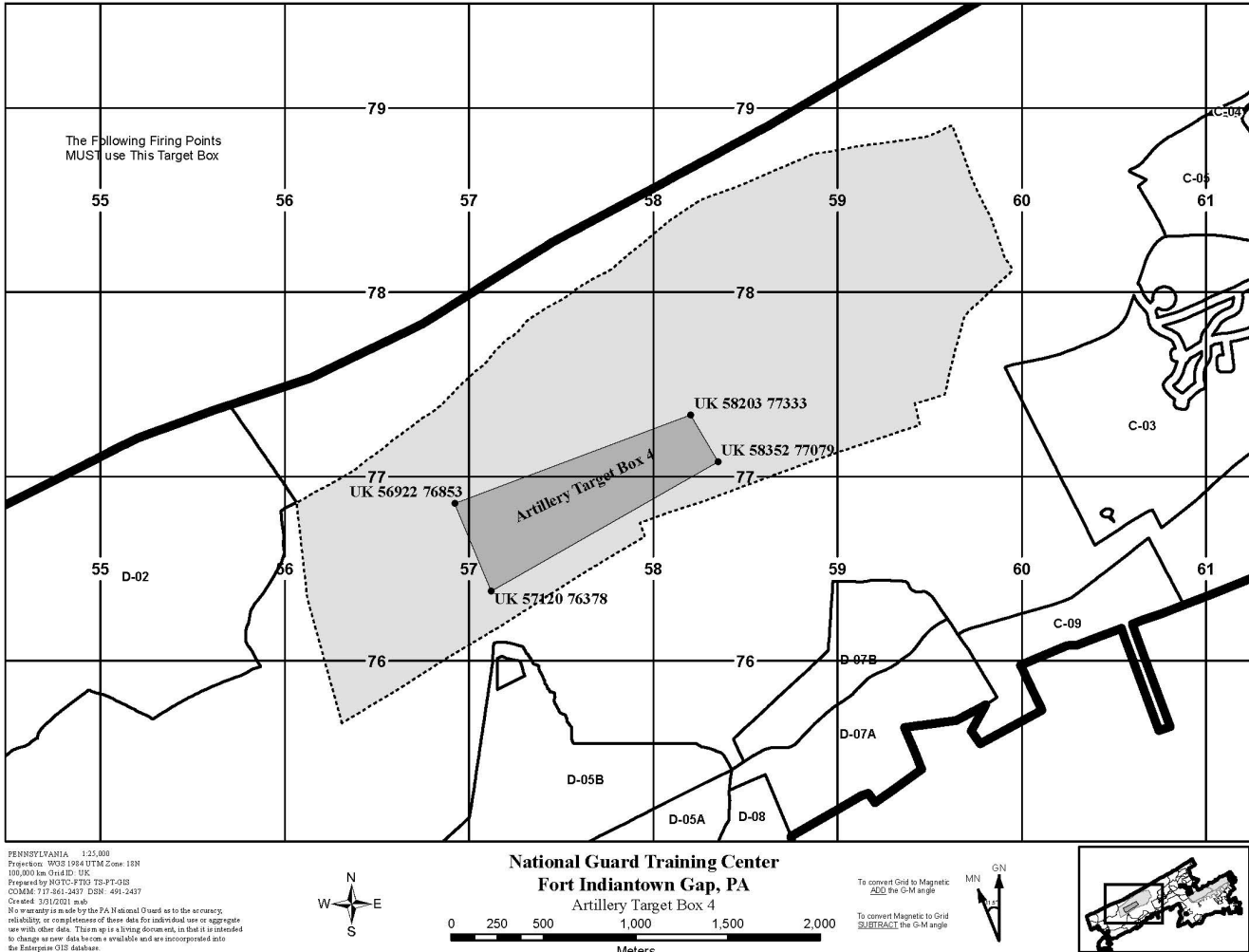
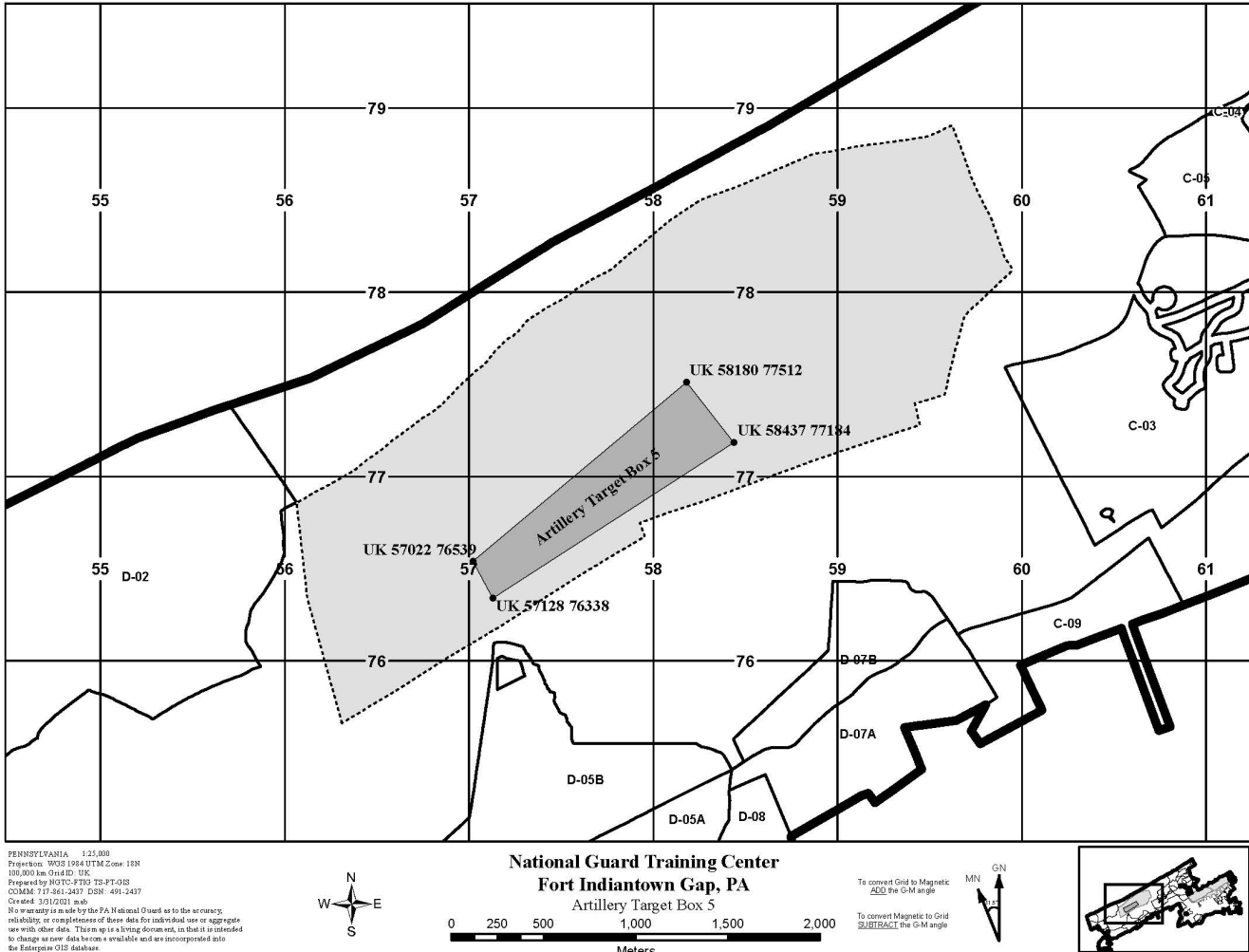


Figure 5-7 Target Box 4

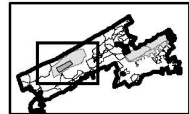


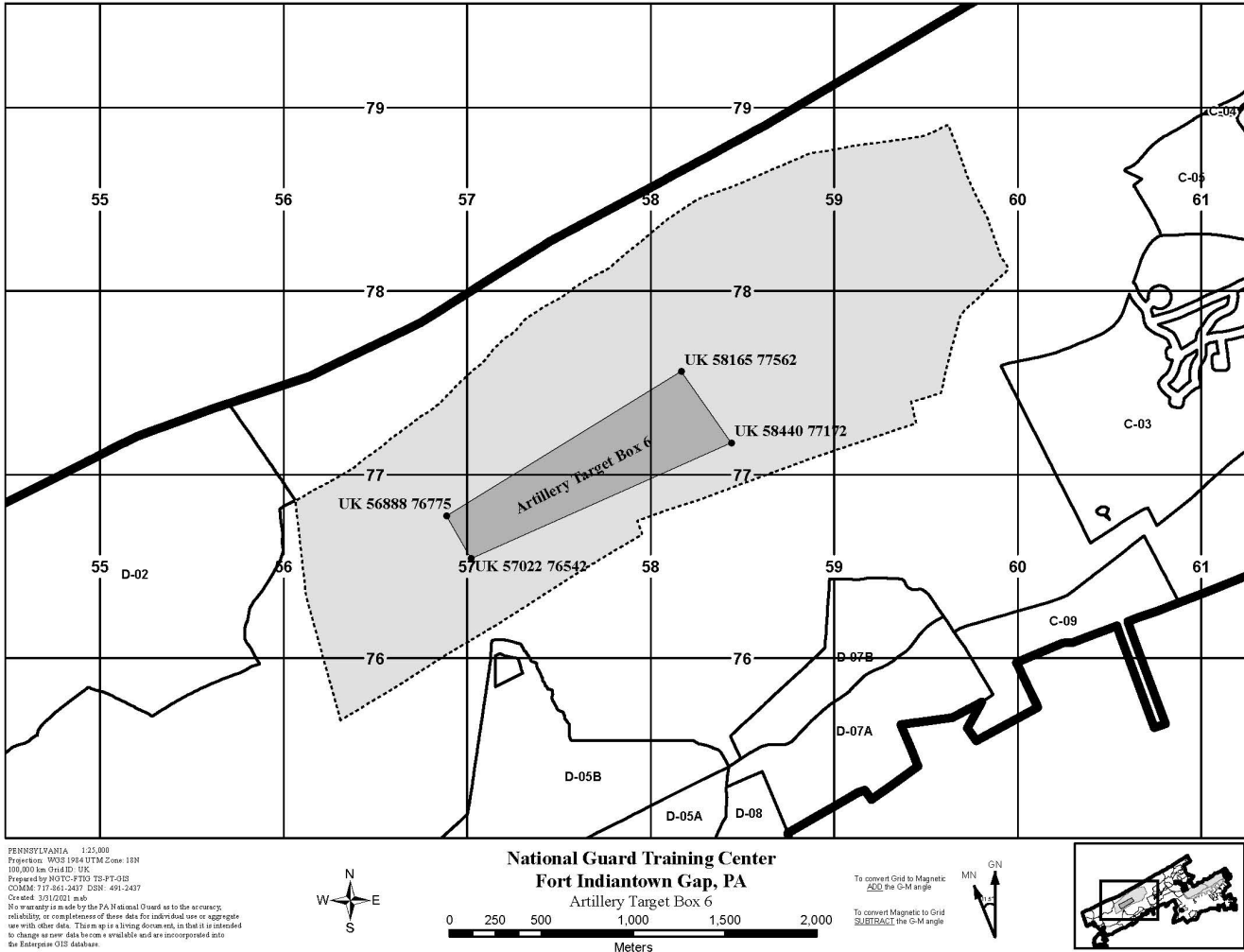
PENNSYLVANIA 1:25,000  
 Projection: WGS 1984 UTM Zone 18N  
 100,000 km G14 ID: UK  
 Prepared by: NOTIC-PTG TS-PT-015  
 COMBAT 717-661-2637 DSN: 491-2437  
 Created: 3/1/2001 mbh  
 No warranty is made by the PA National Guard as to the accuracy,  
 reliability, or completeness of these data for individual use or aggregate  
 use with other data. This map is a living document, in that it is intended  
 to change as new data becomes available and are incorporated into  
 the Enterprise GIS database.



To convert Grid to Magnetic  
 ADD the G-M angle

To convert Magnetic to Grid  
 SUBTRACT the G-M angle





**Figure 5-9 Target Box 6**

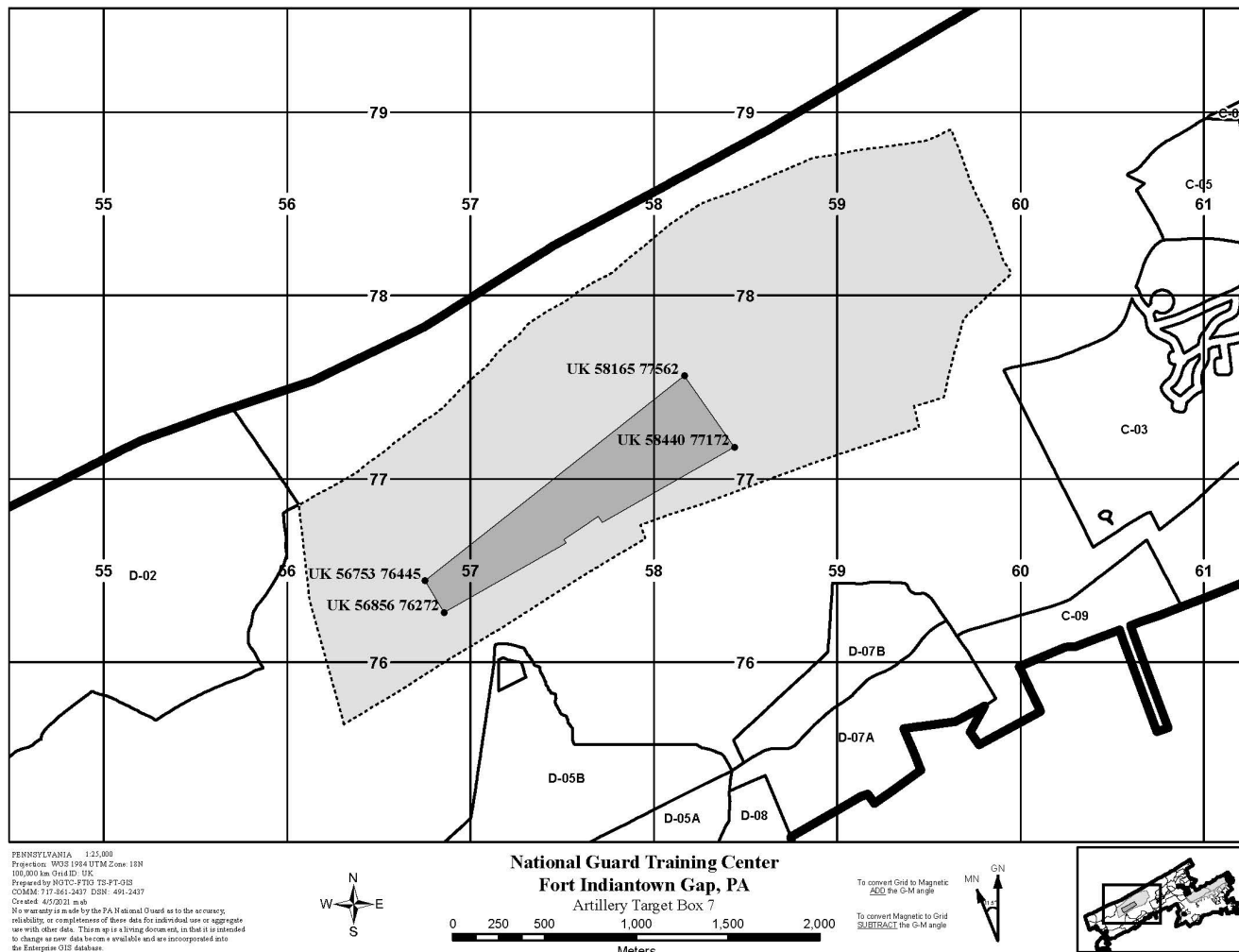


Figure 5-10 Target Box 7

*b. Firing Points (FPs):*

- (1) FPs are surveyed to the 4<sup>th</sup> order and are marked with a 105mm shell serving as the surveyed monument.
- (2) Units with survey capability may establish a firing point anywhere in the Training Corridor that does not involve firing over SR 443; use of unit surveyed FPs is non-standard and requires a NSTR IAW Chapter 2-17.
- (3) At least one weapon system or aiming device must be within 100 meters of the FPs survey marker. All weapon systems and aiming devices must be within 400 meters of the FPs survey marker.
- (4) Units will emplace their weapon systems IAW current regulatory guidance. Units conducting hip-shoots must be within 100 meters of an established FP; hip-shoots require a NSTR IAW Chapter 2-17.

**Table 5-1  
Active IDF Firing Points**

Firing Point	Weapon Supported	Grid Coordinate	Altitude in Meters	Number of Guns	Target Box
B-10-02	105mm, 155mm	18T UK 63025 80926	313.90	4	1
B-10-05	105mm, 155mm	18T UK 63337 80389	238.32	4	1
B-11-03	105mm, 155mm	18T UK 63099 79950	219.99	4	1
B-11-04	105mm, 155mm	18T UK 63091 79712	214.56	4	2
B-12-03	105mm, 155mm	18T UK 62428 79800	234.87	6	2
C-04-04	105mm, 120mm, 155mm	18T UK 62290 78798	204.48	4	3
C-04-07	105mm, 120mm, 155mm	18T UK 61669 78816	208.99	4	4
C-05-03	81mm, 120mm	18T UK 60505 78707	236.83	4	1,2,4,5,6,7
D-03-02	105mm, 155mm	18T UK 54840 74753	191.20	4	5
D-03-06	105mm, 155mm	18T UK 54194 74409	177.73	4	7
D-03-08	105mm, 155mm	18T UK 54162 74525	189.19	4	7
D-03-10	105mm, 155mm	18T UK 54147 75150	194.15	4	6
D-03-12	105mm, 155mm	18T UK 54684 75332	205.56	6	6
F-01-03	60mm, 81mm, 120mm	18T UK 55923 75992	212.65	4	4,5,6,7
F-01-08	60mm, 81mm, 120mm	18T UK 55827 76136	207.61	4	1,2,4,5,6,7
F-01-10	81mm, 120mm	18T UK 60559 78317	223.06	4	1,2,4,5,6,7
Medina Ridge	105mm, 155mm	18T UK 64225 81676	342.79	4	1
OP 09 <sup>1</sup>	60mm, 81mm	18T UK 58886 76536	228.34	2	N/A
OP 13 <sup>1</sup>	60mm, 81mm, 120mm, 155mm	18T UK 58302 75553	298.49	2	N/A

Notes: 105mm and 155mm represent Artillery munitions. 60mm, 81mm and 120 mm represent mortar munitions.

<sup>1</sup>OP 09 and OP 13 are used for direct lay; Range Operations will provide a Target Box based off the unit provided DODICs.

*c. Observation Posts (OPs).*

- (1) FTIG has 3 primary OPs.
- (2) Units may submit a NSTR, IAW Chapter 2-17, IOT utilize an OP outside of the installation's 3 identified OPs.
- (3) Forward Observer's OPs will be outside of all respective SDZs.
- (4) OPs will be scheduled in RFMSS separate from FPs.
- (5) Targets will be no less than 800 meters from the OP.

**Table 5-2  
Observation Posts**

Point	Grid coordinate	General description
OP 09	18T UK 58902 76545	Open grassy area, flat terrain
OP 11	18T UK 59337 76262	Small wooded area with man-made stone wall
OP 13	18T UK 58405 75630	Wooded terrain leading to a small open area

**5-5. Safety aids and Safety Ts**

*a. Safety aids:*

- (1) Units will ensure safety aids are properly emplaced and utilized IAW the appropriate training publication.
- (2) Howitzer Section Chiefs, when firing in a digital mode, will:
  - (a.) Provide the site-to-crest between the left and right deflection limits using the DFCS.
  - (b.) Emplace left and right deflection limit stakes during occupation.
  - (c.) Emplace index and safety limit tape on the quadrant scale.

*b. Safety T's:*

- (2) Safety Ts will be prepared prior to live-fire, containing the following: deflection, minimum and maximum elevations, minimum fuse settings, FP location, charge, projectile, fuse, angle of fire, meteorological data (MET data), and azimuth of lay.
- (3) Separate Safety Ts will be prepared for each charge to be fired.
- (4) Safety Ts will be updated after registration and when new MET data is received.
- (5) Safety Ts must reflect the current safety diagram.
- (6) All guns, safety officers and firing battery supervisors will have a Safety T.
- (7) Safety diagrams will be published on a chart in the FDC. The officer in charge of the FDC will have the safety card data on the firing charts and entered in the computer.

**5-6. Weather**

- a.* Units are prohibited from utilizing standard MET data. Units will update MET data every four hours, at a minimum, and within two hours while conducting dusk, dawn and high angle missions.
- b.* Units utilizing weather balloons will coordinate with Range Operations NLT 14 days prior to allow Range Operations to update the installations air concerns.



c. Shell Illuminating, White Phosphorus and Smoke are prohibited when winds exceed 15 knots and/or the Fire Danger Rating exceeds Moderate.

## 5-7. Ammunition

a. The following IDF guidelines for overhead fire are in addition to Chapter 3-7:

(1) Use of artillery ammunition not approved for overhead fire is restricted IAW Chapter 3-7 and requires a NSTR IAW Chapter 2-17.

(2) Firing mortars overhead is restricted and requires a NSTR IAW Chapter 2-17.

(3) Units utilizing ammunition not approved for overhead fire may be denied or have restricted live-fire times because of the significant increase in scheduling conflicts that arise.

b. 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 and current regulatory guidance. Prepared rounds that are not utilized and have had charges removed must have all charges replaced before turn-in at the ASP. Fuses must be set to the appropriate "SAFE" position prior to turn-in at the ASP. The QASAS can provide a listing of all fuse settings upon request.

c. Improved Conventional Munitions (ICM) ammunition is prohibited.

d. M109 series howitzers may carry fused rounds north of Tomstown Rd.

e. Alteration of fuses is prohibited unless approved by CG/AMC/MC.

f. Green bag and white bag charges will be loaded as a fully assembled charge, not in separate increments, and will not be assembled together; a critical malfunction will result by doing so.

g. Units will notify Range Operations prior to punching rounds. QASAS will inspect punched rounds prior to units attempting to re-fire.

h. Units will report damaged fuses, torn propellant bags, wet propellant bags, grease, foreign matter and signs of deterioration to Range Operations for referral to QASAS.

i. Use of Killer Junior and Shell Beehive rounds is non-standard and requires a NSTR IAW Chapter 2-17.

j. Excess propellant will not be transported.

k. Artillery units will remove excess propellant to a position 30-40 feet from the nearest weapon system or ammunition. Mortar units will store excess propellant in a wood or metal box at least 25 meters outside the mortar pit or vehicle; all propellant will be disposed of IAW current regulatory guidance and environmental conditions prior to clearing the FP.

l. Modular Artillery Charges (MAC) will be repackaged, in their original containers, and returned to the ASP; units are prohibited from burning or disposing of MACs.

## 5-8. Round out of safe

Units will place themselves in a Check-Fire Freeze and immediately contact Range Operations when a round impacts outside of the prescribed Target Box; units will:

a. Complete a Round out of Safe Form, FTIG Form 350-9 (see Figure 5-10).

b. Prepare and provide Range Operations all applicable data that pertains to the incident, to include:

(1) Fire Mission and Howitzer Logs.

(2) DA Form 4504 Record of Fire.

(3) DA Form 4513 Record of Missions Fired.

(4) MVV printout (if applicable).

(5) DA Form 2188/2188-1 MFCS/LHMBC Data Sheet.

(6) DA Form 2399 Computer's Record.

(7) DA Form 2601-1 MET Data Correction Sheet for Mortars.

(8) DA Form 5429-R Conduct of Fire from the FO on the OP.

c. Remain in a dry status and await further instruction from Range Operations.

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<b>ROUND OUT OF SAFE</b>			
<small>For use of this form, see FTIG REG 350-2, the proponent agency is FTIG Range Operations</small>			
<small><b>INSTRUCTIONS:</b> This form will be completed by the OIC after a round has failed to remain inside of the intended target area. See FTIG REG 350-2, Chapter 5-3 for additional guidance and requirements. Forms can be submitted digitally, to the email below, or in person to the Fire Desk at Building 11-9. EMAIL: <a href="mailto:nj.pa.paamg.list.ftig-tnq-ste-range-control@mail.mil">nj.pa.paamg.list.ftig-tnq-ste-range-control@mail.mil</a> or contact 717-861-2152/2153 for assistance.</small>			
<b>1. GENERAL INFORMATION</b>			
a. Unit	b. Commander (Rank, Name)	c. OIC (Rank, Name)	d. RSO (Rank, Name)
C. Incident Reported By		e. Incident Date Time Group	f. Check-Fire Freeze Time
		Imposed:	Lifted:
<b>2. ERRATIC ROUND/MALFUNCTION INFORMATION</b>			
a. Firing Point	b. Grid Coordinate Of Gun		
c. Air Ground Burst	d. Time Of Last Mission		
e. Weapon Fired	f. Azimuth Of Fire		
g. Fuse (Time If Applicable)	h. Elevation		
i. Deflection	j. Quadrant		
k. Propellant	l. Target Grid Coordinate		
m. Shell	n. FTIG Target Box Number		
o. FDC Target Box	p. Point Of Impact Grid Coordinate		
q. Personnel Injured	r. Property Damaged		
s. Number of Rounds Out of Safe	t. FO OIC and FO RSO		
u. Additional Comments			
<b>3. AUTHENTICITY ACKNOWLEDGEMENT:</b> I certify all information regarding this incident is correct. I will immediately notify the Range Management Authority of any additional information.			
a. OIC Name	b. Signature	c. Commander Name	d. Signature

FTIG FORM 350-9, MAY2021

PREVIOUS EDITION IS OBSOLETE.

**Figure 5-11 Round Out of Safe**  
Note: Digitally available in the RFMSS library

## Chapter 6 Explosives and demolitions

### 6-1. General

This chapter describes safety directives for demolitions training. Guidance is IAW AR 385-63, DA PAM 385-63 and all applicable training publications. OICs and RSOs will ensure compliance with all applicable references, this publication and the facility SOP prior to demolition operations. OICs and RSOs are encouraged to review Range SOPs prior to arriving; Range SOPs are located in the RFMSS library.

- a. Units conducting demolitions training will utilize PPE level 1, IAW Table 1-3.
- b. Units will submit an Explosive Firing Log, FTIG Form 350-10 (see Figure 6-1), outlining the composition and Net Explosive Weight (NEW) of the charges to be fired no less than two weeks prior to training for review and approval by Range Operations.
- c. Units will request targetry IAW chapter 2; procurement and movement to the demolition site may require unit assistance and funding.
- d. The Maximum Charge on the installation is 100 pounds (lbs.) NEW. The Maximum Charge is the total NEW of any single or combined detonation set off simultaneously or with less than a 30 second intervals 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.



- f.* Units will ensure explosive charges, simulators, and pyrotechnics used during training are properly detonated. Charges, including misfires and unexploded ordnance will be blown in place prior clearance.
- g.* Explosive materials that remain after the final detonation will be collected and turned into the ASP.
- h.* Electrically initiated charges are prohibited within 155 meters of energized power transmission lines.
- i.* Blasting caps from different manufacturers will not be mixed.
- j.* Charges will be detonated at the proper distance of blast viewing bunkers IAW with regulatory guidance.

### **6-3. Misfire procedures**

Misfire procedures will be conducted IAW applicable publications and Chapter 3; in addition, units will secure the misfire area and ensure no attempt is made to move or disarm the shot.

### **6-4. Training new personnel**

Requirements for training new personnel are as follows:

- a.* Fire all charges electrically with the exception of specific non-electric training instruction.
- b.* Fire charges un-tamped above the ground surface.
- c.* The instructor to new trainee ratio can be no more than one to five and all priming and placement of charges must be directly supervised by the instructor.

### **6-5. Explosive range storage**

The below storage guidance is in addition to Chapter 3.

- a.* 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. Dunnage removal and cover are unit responsibilities.
- b.* Units will supply their own armed guard and Sergeant of the Guard IAW all applicable manuals.
- c.* Units will never mix live and dummy/training explosives together. This includes transportation, storage, demonstration, or training.
- d.* Blasting caps will be stored separately.

### **6-6. Steel cutting and concrete**

- a.* Demo D is the only standard location for steel cutting and concrete charges. Units will coordinate with Range Operations IOT conduct steel cutting or concrete charges at Demo B.
- b.* Charges placed on steel will not exceed 2 lbs. NEW.
- c.* Charges placed on concrete will not exceed 40 lbs. NEW and should be placed on the side nearest to personnel.

### **6-7. Claymore**

- a.* Claymore training will be conducted IAW all applicable manuals.
- b.* RG19 is the standard range for Claymore training. Use of claymores outside of RG 19 is non-standard and requires a NSTR, IAW Chapter 2-17.
- c.* All personnel will be accounted for and positioned behind the existing berms.

### **6-8. Breaching**

- a.* Demolition breaching will be conducted IAW all applicable manuals.
- b.* Standard concrete charges are not authorized at RG 33, the breach facility. Units planning to utilize the concrete wall will create a non-standard charge that does not exceed 5 lbs. NEW.
- c.* Charges not listed in Chapter 7 of FM 3-34.24 or live-fire breaching requests not conducted at the breach facility are considered non-standard and require a NSTR, IAW Chapter 2-17.

## **Chapter 7**

### **Lasers**

#### **7-1. General**

This chapter describes safety directives for Class 3R, or greater, lasers. Guidance is IAW AR 385-63, DA PAM 385-63, TB MED 524, AR 11-9, MIL-HDBK-828A and applicable laser manuals and training publications. OICs and RSOs will ensure compliance with all applicable references, this publication and the facility SOP prior to demolition operations. OICs and RSOs are encouraged to review Range SOPs prior to arriving; Range SOPs are located in the RFMSS library.

## 7-2. Responsibilities

### *a. Range Operations will:*

- (1) Ensure materials placed in the Dudded Impact Area have all specular reflective surfaces covered or removed.
- (2) Ensure laser warning signs are emplaced and access barriers secured around applicable laser danger areas.

### *b. Unit commander will:*

- (1) Certify OICs and RSOs IAW, Table 1-1, on the units RSCR.
- (2) Develop a unit SOP for laser operations covering, at a minimum, the following criteria:
  - (a.) An orientation on lasers purposes and capabilities in order to provide confidence and competency.
  - (b.) Instructions on hazards and personal protective measures.
  - (c.) A medical treatment plan and reporting procedures for personnel who receive overexposure.
  - (d.) Record requirements concerning overexposure in excess of levels set forth in AR 11-9 and TB MED 524 be maintained.

### *c. OIC and RSO will:*

- (1) Be knowledgeable and comply with this regulation, the unit SOP and all other applicable publications pertaining to the laser device and range safety.
- (2) Conduct a reconnaissance to establish the left and right target limits while ensuring all targets are at least 10 mils below the horizon.
- (3) Ensure all targets are clearly visible.
- (4) Know the azimuth and elevation limits associated with the range facility and targets being used.
- (5) Ensure laser warning signs are posted around the danger area of the weapon.
- (6) Brief personnel who work with lasers on related hazards and safety devices.
- (7) Visually inspect the range area for reflective surfaces and report findings to Range Operations. Range Operations requires verbal verification that reflective surfaces are not present prior to issuing a Wet Time and Code. Glossy foliage, raindrops, and fog are not considered specular surface that create ocular hazards.
- (8) Immediately stop live-fire operations if positive control of the laser beam is lost.
- (9) Ensure individuals within the Laser Surface Danger Zone (LSDZ) and on the firing line wear laser protective eyewear, with curved protective lenses, during live-fire operations. Eyewear must be approved for the wavelength and the laser device being fired IAW MIL-HDBK-828A Appendix A.

## 7-3. Safety

### *a. Lasers are managed in the same manner as any other live-fire weapon.*

### *b. OP 11, OP 13 and RG 24B are the only authorized locations for laser live-fire.*

*c. The underlying concept of laser range safety is to prevent intra-beam viewing by unprotected personnel. This is accomplished by the use of a standard maneuver direct fire SDZs. SDZ's will be developed IAW DA PAM 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.*

### *d. Every effort will be made to control laser device usage and access of personnel to the laser range facility.*

*e. 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.*

*f. The use of spotting scopes and range finders to observe the target during laser operation is permitted 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.*

*g. 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.*

### *h. Laser devices will not be left unattended with the laser port open.*

### *i. Laser devices will never be used to lase specular reflective surfaces.*

*j. Maintenance in a controlled environment may be performed with the ballistic cover removed IAW prescribed operating procedures.*

*k. Pre-fire checks that require operation of the laser can be made in a controlled area with the laser beam terminated by an opaque backstop.*

*l. Pre-fire 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.*

*m. 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.*

### *n. The laser exit port will be covered when not in use or not engaged in tactical operations in a controlled environment.*

o. Laser devices are prohibited in force on force exercise.

#### 7-4. Air to ground lasers

a. Air to ground laser are authorized in controlled areas within the installation's restricted airspace (R5802B) that will accommodate the required LSDZ.

b. Units will ensure adequate controls are enacted to stabilize and control the laser device.

c. Units will ensure the laser range boundaries and the LSDZ are clearly marked and visible from the aircraft.

d. Units will provide Range Operations the aircrafts permissible minimum and maximum elevations and pitch altitudes IOT verify safe use of the laser.

e. The OIC and RSO will ensure procedures are in place and personnel are assigned to immediately terminate the laser if the beam exceeds established safety limits.

f. The RSO will conduct an over-fly of the target areas in a dry status to ensure no specular surfaces exist prior to live-fire being conducted.

## Chapter 8 Airspace

### 8-1. Introduction

Aviation units and ground units integrating aviation assets (rotary-wing, fixed-wing, unmanned, or high performance aircraft) will schedule ground facilities through RFMSS and airspace through the Range Operations Airspace Manager NLT 45 days prior to training. Coordination will include aircrafts (ACs), altitudes, scenarios, times, routes, landing zones (LZs), drop zones (DZs), restricted operating zones (ROZs) and any other relevant information. Units must have a thorough understanding of the request and coordination process for assets, facilities and airspace; failure to do so will have negative impacts on training. See Figure 8-1 for a graphical aid for the scheduling and coordination of aviation integrated training.

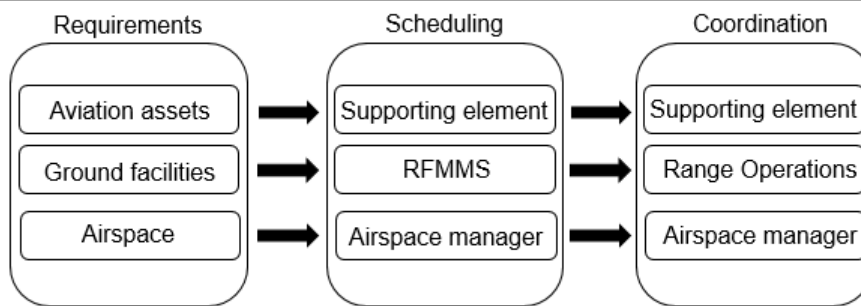


Figure 8-1 scheduling and coordination of aviation integrated training

### 8-2. Categories and requirements

a. *Restricted Airspace*: R5802 is Special Use Airspace (SUA) granted to FTIG by the Federal Aviation Administration (FAA) for the scheduled use of military training that otherwise would be hazardous to non-participating AC. R5802 is requested from the FAA NLT 15 days prior to the beginning of the month (I.e. the airspace required to support training in the corridor for the month of October is scheduled NLT 15 September).

(1) R5802 consists of five (5) classes, as indicated in Table 8-1.

**Table 8-1  
Classes of R5802**

Class	Altitude	Training Supported
R5802A	200 FT AGL – 5000 FT MSL	Fixed-wing maneuver Area, UAV maneuver Area, Rotary-wing maneuver Area, Cargo Drops, SAR
R5802B	Surface – 13000 FT MSL	Fixed-wing maneuver Area, UAV maneuver Area, Rotary-wing maneuver Area, Cargo Drops, SAR, Artillery, Mortars, Missiles, Demolitions, Small-arms fire, Shoulder-fired rockets.
R5802C	500 FT AGL – 16999 FT MSL	Fixed-wing maneuver Area, UAV maneuver Area, Rotary-wing maneuver Area, Cargo Drops, SAR
R5802D	17000 FT MSL – FL 220	Fixed-wing maneuver Area
R5802E	FL 220 – FL 250	Fixed-wing maneuver Area

(2) Range Operations is the controlling agency of R5802. Unauthorized access by military or civilian AC is prohibited and will result in an Operational Hazard Report being filed with the Department of the Army Representative (DAR) and the FAA.

(3) Units requesting access to R5802 will:

(a.) Request associated ground facilities in RFMSS, IAW Chapter 1.

(b.) Contact the Range Operations Airspace Manager to request access and coordinate applicable restrictions and limitations.

(c.) Ensure Air Mission Commander (AMC) or Pilot-in-Command (PC) are aware of the requirements listed below and have been briefed on all coordination's conducted with Range Operations.

(4) Air Mission Commander (AMC) or Pilot-in-Command (PC) operating in R5802 will:

(a.) Contact Range Operations Fire Desk at (717) 861-2152/2153 IOT receive a situation report on R5802 prior to take off.

(b.) Establish communications with Range Operations by providing identification, destination and desired route and maintain communications while in R5802, see table 8-2 for frequencies.

(c.) Establish and maintain communications with Bollen Range (if activated), see table 8-2 for frequencies.

(d.) Consult applicable DOD FLIP sources, FTIG Aviation Procedures Guide and the NOTAM file.

(e.) Squawk 4000 IAW DOD FLIP.

(5) AC operating in R5802 will not alter predetermined flight routes or fly over the impact area.

*b. Small Arms Range Safety Area (SARSA):* Range Road has a SARSA established by the Garrison Commander that extends from the surface to 3500 Feet MSL.

(1) Live-fire is prohibited when ceiling or cloud height is less than 1000 feet above the vertical hazard of the weapons being fired and if visibility is less than 1 mile.

(2) Visibility restrictions will be reduced to 2200 feet above the vertical hazard of the weapons being fired when Muir Army Airfield (KMUI) is operational; Range Operations will notify units of visibility restrictions as they change.

(3) OICs of live-fire ranges within the SARSA (i.e. RG 2 through RG 19) will identify an Air Guard who is responsible to monitor the skies and call an immediate cease fire should an aircraft approach or enter the SARSA; OICs will notify Range Operations of any incursions.

*c. KMUI Class D airspace:* Muir Army Airfield activates their own Class D airspace around KMUI.

(1) AC operating in or traversing through KMUI Class D airspace will maintain communications with Air Traffic Control (ATC), see Table 8-2 for frequencies.

(2) Units will contact KMUI, see table 8-2, for Prior Permission Requests (PPRs) to arrange for fuel or VIP arrivals (O6/GS-15 or above).

**Table 8-2  
Aviation Contact Roster**

Agency	Phone	DSN	Frequency
Range Operations	717-861-2152	491-2152	P: 800 MHz, Channel "RNGSFTY" A: FM 41.400, SC PT
Bollen Range	717-861-1136/1137	491-1136	P: UHF 233.45, VHF 139.85 A: UHF 239.15, VHF 134.10
KMUI Airfield	717-861-8963	491-8963	UHF 290.50 VHF 126.20
TUASOF	717-861-3336	491-3336	N/A

*d. Air Priority:* FTIG has an established Air Priority Schedule to ensure equal training opportunities for air and ground units.

(1) Tuesdays, Thursdays (all day) and one Saturday a month (1030-1130 and 1400-1500) air training has priority over ground training in the Training Corridor; ranges will be required to go into a Dry Status.

(2) Range Operations will list applicable check-fire times in the unit's Confirmation Letter.

(3) Air Priority Saturdays change month to month, contact Range Operations to determine when they will occur.

**8-3. Air to ground range**

a. The Pennsylvania Air National Guard Air-to-Ground Range, utilized by high performance AC, is located within the Impact Area. The Commander, 193rd Special Operations Wing (SOW) is responsible for operation of the range and controlling aircraft. For further information, see AFMAN 12-212V1, AFMAN 13-212V1 ANG Supplement, and the 193 SOW/Det 1 Manual 13-212.

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 the Range Operations Airspace Manager.

**8-4. Airborne operations**

a. Units conducting airborne operations will do so IAW this regulation, the appropriate installation DZ SOP and all applicable publications.

b. KMUI ATC Tower must be operation for airborne operations to occur.

c. DZ's will be scheduled through RFMSS, IAW Chapter 1; Units will coordinate with the Range Operations Airspace Manager to ensure the training event is properly planned.

d. FTIG has two identified DZs, Wyatt and West Field. Contact Range Operations for coordination and planning.

e. Water obstacles exist within 1000 meters of both surveyed DZs.

f. Airborne drops on tactically surveyed DZ's is non-standard and requires a NSTR, IAW Chapter 2-17.

**8-5. Air assault and air mobility**

a. Rappelling and fast roping from rotary-wing AC is considered hazardous and will meet all requirements in appropriate training publications.

b. FTIG has predetermined LZs for training and aerial evacuation (AEROVAC), see Tables 8-3 and 8-4. Training on Medical LZs is prohibited.

c. All established LZs coincide within Ranges and/or Training Areas. In the event the ground facility is scheduled and there is a request for an LZ that resides in that facility, a Co-Use Agreement will be initiated IAW Chapter 1-7.

d. Ground commanders and PICs may establish LZs outside those established with prior coordination and approval from Range Operations. LZs in environmental study areas, ITAM rehabilitation areas, the Dudedded Impact Area or locations which impact adjacent training activities are prohibited.

e. Units will adhere to Chapter 8-1 when operating in or through R5802 and/or KMUI Class D airspace.

f. LZs Blue, Tomahawk and West Field are available to the Eastern Army Aviation Training Site (EAATS) and KMUI for pinnacle landings and sling load training when the LZs, specifically, are not scheduled. Units who do not want these activities to take place will schedule the corresponding LZ in addition to the training area it resides in.

**Table 8-3  
Landing Zones for Training Purposes**

Landing Zone	Grid coordinates	Long/Lat.	Facility	Airspace
Muir AAF	18T UK 66582 77265	76° 34' 22.845"W 40° 26' 7.206"N	Airfield	KMUI Class D
West Field	18T UK 63632 75015	76° 36' 26.273"W 40° 24' 52.539"N	TA A-01	KMUI Class D
Blue	18T UK 58324 74761	76° 40' 11.205"W 40° 24' 41.113"N	TA D-08	KMUI Class D
Medina Ridge	18T UK 64083 81641	76° 36' 12.246"W 40° 28' 27.620"N	TA B-10B	KMUI Class D
Tomahawk	18T UK 64808 82022	76° 35' 41.760"W 40° 28' 40.398"N	TA B-10B	KMUI Class D
Range 27	18T UK 54580 74478	76° 42' 49.761"W 40° 24' 29.615"N	TA D-03C	R5802
Range 30	18T UK 62263 79308	76° 37' 27.675"W 40° 27' 10.929"N	RG 30	R5802
Range 34 North	18T UK 59237 76845	76° 39' 34.143"W 40° 25' 49.232"N	RG 34	R5802
Range 34 South	18T UK 60327 76517	76° 38' 47.641"W 40° 25' 39.260"N	RG 34	R5802
Open Field	18T UK 68192 77885	76° 33' 14.996"W 40° 26' 28.232"N	TA A-17	KMUI Class D
Open Field	18T UK 69424 79796	76° 32' 24.101"W 40° 27' 30.895"N	TA A-31	KMUI Class D
Open Field	18T UK 64482 794°65	76° 40' 53.635"W 40° 27' 17.309"N	TA B-07	KMUI Class D
Open Field	18T UK 62380 79790	76° 37' 23.098"W 40° 27' 26.602"N	TA B-12A	R5802
Open Field	18T UK 60769 77969	76° 38; 30.000"W 40° 26' 26.616"N	RG 39	R5802



**Table 8-4**  
**Landing Zones for AEROVAC, Training Prohibited**

Landing Zone	Grid coordinates	Long/Lat.	Facility	Airspace
MEDEVAC Pad	18T UK 67050 76850	76° 34' 20.746"W 40° 25' 54.018"N	Area 7	KMUI Class D
TMC MEDEVAC	18T UK 64820 76744	76° 35' 37.273"W 40° 25' 49.247"N	Baseball Field	KMUI Class D
East Field	18T UK 68939 79007	76° 32' 44.162"W 40° 27' 05.058"N	TA A-15	KMUI Class D
Open Area	18T UK 58687 80006	76° 39' 59.974"W 40° 27' 31.384"N	Stoney Creek	KMUI Class D
Dresden Lake	18T UK 62285 82037	76° 37' 28.990"W 40° 28' 39.407"N	Stoney Creek	KMUI Class D

**8-6. FARP operations**

- a. Forward Arming and Refueling Point (FARP) operations will be conducted IAW ATP 4-43, unit SOPs and this publication.
- b. FARPs located separate from the main unit will either maintain radio communication directly with Range Operations or relay through the main unit.
- c. RG 38 FARP and RG 23E FARP are dedicated areas for FARP operations; Units may utilize other areas for this purpose.
- d. Units will notify Range Operations when FARP operations begin.
- e. FARP Sites will be inspected and cleared by Range Operations IAW Chapter 2.

**8-7. UAS operations**

- a. Units training with RQ-7 Shadow systems, service equivalent or larger, will contact the Tactical Unmanned Aerial Systems Operations Facility (TUASOF) for scheduling see Table 8-1 for contact information.
- b. TUASOF will conduct operations IAW the MOU for policies and procedures for TUAS training at FTIG.
- c. Units training on RQ-11 Raven systems, or equivalent, will:
  - (1) Schedule a Training Areas suitable for launching IAW Chapter 1; Artillery Firing Points are often scheduled for this purpose.
  - (2) Select an event in RFMSS that indicates Raven or UAV operations.
  - (3) Ensure request is submitted early to ensure airspace scheduling IAW Chapter 8-1.
  - (4) Inform the Range Operations Airspace Manager of specific points of interest on ground required for observation; e.g. ground unit training, urban complexes, etc.
  - (5) Draw M2 transponders and frequencies from Range Operations, when required, no sooner than 48 hours from execution.
  - (6) Execute training IAW this regulation and all other applicable publications.
- d. Range Operation will assign Restricted Operating Zones (ROZs) for UAV operations contingent upon concurrent training in the ITC and Restricted Airspace.

**8-8. Aerial Gunnery**

- Aerial Gunnery will comply with this regulation, AR 95-1, AR 385-10, AR 385-63, FTIG Aviation Procedures Guide, The Range SOP and all other applicable publications.
- a. FTIG has two aerial gunnery ranges (AGRs) for rotary AC.
  - b. RG 23 Door provides hover front-oriented firing of 20mm, 30mm and 2.75 Inert Rockets.
  - c. RG 24A provides 7.62 door gunnery to table VI standards.
  - d. AGR SOPs will provide target locations and description, as well as engagements and tasks; Range Operations will provide AGR SOPs to units upon initial contact to assist in training planning and development.
  - e. Hellfire and air delivered TOW missiles are prohibited.
  - f. Ensure request is submitted early to ensure airspace scheduling IAW Chapter 8-1.
  - g. Bollen Range must be present, in the control tower, while AGRs are conducting live-fire.
  - h. OICs will be located in the tower for communication and control of the facility.
  - i. RSO may position themselves through the range complex, in locations they are able to perform assigned duties IAW RG SOP.
  - j. When the ceiling is below 1000 Feet (day) or 1500 Feet (Night) and/or visibility less than 3 Miles live-fire will cease until visibility conditions improve.
  - k. Ground personnel will be equipped with red omitting light devices during limited visibility operations.

**Chapter 9**

**Training Aids, Devices, Simulators and Simulations (TADSS) and Constructive Simulations**

**9-1. Introduction**

a. The FTIG Training Support Center (TSC) is located at Building 5-239. Hours of operations are Monday-Sunday, 0800-1600. The Ground Simulations Office can be reached at 717-861-9775 or by email at [ng.pa.paarnng.list.ftig-ground-simulations@mail.mil](mailto:ng.pa.paarnng.list.ftig-ground-simulations@mail.mil). The TSC section can be reached at 717-861-7830 or by email at [ng.pa.paarnng.list.ftig-tsc@mail.mil](mailto:ng.pa.paarnng.list.ftig-tsc@mail.mil). The FTIG MSTC is located in Building 16-271 and can be reached at 717-861-9990 or by email at [ng.pa.paarnng.list.ftig-mstc@mail.mil](mailto:ng.pa.paarnng.list.ftig-mstc@mail.mil).

b. This chapter pertains to all ground TADSS as well as the Aviation Combined Arms Tactical Trainer (AVCATT) and Non-Rated Crew Member Manned Module (NCM3). Units will contact the Eastern ARNG Aviation Training Site (EAATS) at 717-861-9975 for information on all other aviation simulators.

c. Units should review the FTIG TSC Manual, TADSS Index and Device Catalog, TRADOC PAM 350-9 and contact the TSC for simulator descriptions and general capabilities. These publications are maintained in FTIG RFMSS Library.

## 9-2. General

### a. *Planning, scheduling and coordinating:*

(1) Certain simulators and devices can be transported off the installation to a unit's location. Non-PAARNG organizations may incur transportation costs and fees. Units will coordinate with the Ground Simulations Office to resource transportation. See the TADSS catalog and description of simulators section of this chapter for more information.

(2) Units will request simulators through the Simulation Systems Fire Desk, on the installations RFMSS web portal.

(3) Units will ensure the following requirements are met in order for the TSC to established the virtual training conditions in support of the units training intent:

(a.) Include a training outline, to include training objectives, in the initial RFMSS request; this can be done through a comment in the comments section or attaching a supporting document.

(b.) Contact the TSC, NLT 2 weeks prior, to verify the training outline.

(c.) Ensure changes to training outlines or objectives are reported to the TSC in adequate time, failure to do so places the responsibility for negative training impacts on the unit. Changes during the training event can only be coordinated by a representative at the command level in which the training was scheduled. I.e. platoon or company level leadership cannot request a modification to training for a battalion scheduled event.

### b. *Execution:*

(1) Units will assign an OIC or NCOIC to be responsible for the training and accountability of personnel and the stewardship of the training location.

(2) Real-world firearms are not authorized in the Simulator rooms and trailers containing simulator weapons to include the Engagement Skills Trainer (EST).

(3) Only certified personnel are authorized to operate simulators. Units may request personnel to be trained and certified by the Ground Simulations Office or request a TSC operator be provided. Certain simulators require unit operators, reference the TSC Manual and the description of simulators below for more information.

#### (a.) TSC operators:

a. Do not alleviate the unit's responsibility to assign an OIC or NCOIC.

b. Are not accountable for unit personnel at the training location.

c. Will not dictate nor modify training events, objectives, or end states.

d. Operate the device IAW the training objectives outlined in the original RFMSS request.

e. Are not VCE qualified and are prohibited from validating unit completion and gunnery.

#### (b.) Unit operators:

a. The FTIG TSC Manual provides the length of operator training per simulator and student to instructor ratios.

b. Personnel who complete the training will become Certified Operators, entered into the Training Support – Material Army Wide Tracking System (TS-MATS) for record and receive a DD Form 1902.

c. Units providing their own operator will be hand receipted the simulator, its components, and the facility it's housed in.

#### c. *Maintenance and clearing.*

(1) Units are responsible for cleaning facilities and areas prior to departing post.

(2) Simulators may operate in a downgraded status or become unavailable at any time due to maintenance.

## 9-3. Training aids and devices

The TSC is regionally aligned and nationally focused under the Army Training Support Center (ATSC). Unit requests that cannot be fulfilled locally will be submitted to ATSC for resourcing at no cost. Units are encouraged to submit requests no less than 90 days from intended pickup, in the event resources require fulfillment by ATSC.

### a. *Training aids and devices:*

(1) Units require an account IOT request devices through the TSC.

(2) Units will reference the FTIG TSC Manual and the TADSS Index eCatalog for more information on inventory, account

establishment and request processing.

(3) Training aids and devices are fulfilled on a first come, first served basis.

*b. Graphic Training Aids (GTAs):*

(1) The TSC has a local library of GTAs; Units will reference the TSC Manual for more information and resources on the Army's GTA inventory, digital downloads and the request process for procurement through the FTIG TSC.

(2) Units do not require an account to receive GTAs.

(3) GTAs are consumable items and do not need to be returned to the TSC once issued.

#### **9-4. Simulators**

*a. EST II:*

(1) The EST II is an indoor multipurpose, multilane, small arms, weapons training simulator. This device simulates live weapon training events that lead to individual and crew-served weapons qualification. The system additionally supports collective and escalation of force exercises in a controlled environment. All ESTs on FTIG are 10 lane systems, which can support up to 10 weapons, depending on the weapon system and training event requested.

(2) The ESTs are static and can only be requested for use on the installation.

(3) Basic Individual/Crew Serve Marksmanship Weapons Configuration:

(a.) M9 Pistol – 6 per system

(b.) M1200 Shotgun – 4 per system

(c.) M16A4 Rifle – 10 per system

(d.) M4A4 Carbine – 10 per system

(e.) M4/M320A1 Carbine – 6 per system

(f.) M320 Grenade launcher – 6 per system

(g.) M249 Squad Automatic Weapon – 6 per system

(h.) M240B Machine gun – 6 per system

(i.) M2 Machine gun – 6 per system

(j.) MK19 Automatic grenade launcher – 6 per system

(k.) M136 AT4 Light anti-armor weapon – 6 per system

(l.) M141 Bunker Defeat Munition – 6 per system

(4) The EST has the Following capabilities:

(a.) Weapon Optics: EST weapons, at default, are equipped with iron sights. Simulator Close Combat Optics (CCOs), Rifle Combat Optics (RCOs), and Machine Gun Optics (MGOs) are available by unit request. EST weapons are interoperable with unit provided M68 CCOs. EST weapons are also interoperable with unit provided M150 RCOs, though visually degraded due to system's graphical fidelity.

(b.) Night Visions Devices (NVDs): The EST scenarios can incorporate use of PVS-7s and PVS-14s. Thermal Weapons Sights, to include the PAS-13, do not work with the EST.

(c.) Custom Marksmanship/Collective Scenarios. Units can coordinate with the Ground Simulations Office to develop custom scenarios to facilitate training objectives, individual and collective tasks. Custom scenarios may require over 180 days to develop, depending on the event's complexity.

*b. Mine Resistant Ambush Protected (MRAP) Egress Trainer (MET):*

(1) The MET provides training to Soldiers on the effects of vehicle rollover. It supports training drills, increasing Soldier proficiency in reacting to rollover situations and proper egress utilizing the MRAP platform.

(2) The MET is static and can only be requested for use on the installation.

(3) The MET is operated by unit-provided personnel only. FTIG will not provide an operator team to support a unit MET event.

(4) Due to the exceptional safety requirements of the MET, the Ground Simulations Office will review and verify the training unit's DD Form 2977 – Deliberate Risk Assessment Worksheet.

(5) All personnel training in the MET are required to wear PPE Level I IAW Table 1-3. Gloves and knee and elbow pads are recommended but not required.

(6) The unit's MET operator team is dedicated to the operations of the device and are prohibited from participating in the training, it will consist of five personnel, as follows:

(a.) One OIC who is a certified operator in the rank of E6 or above.

(b.) One Device Operator/Front Safety who is a certified operator in the rank of E5 or above.

(c.) Two Rear Safeties who are certified operators in the rank of E5 or above.

(d.) One Combat Lifesaver or Medic with Aid Bag; no rank requirement and does not require operator certification.

*c. Virtual Convoy Operations Trainer (VCOT):*

(1) The VCOT facilitates convoy training, collective tasks, and battle drills. The simulator additionally meets all gate to live

fire requirements for individual, crew, section, and platoon un-stabilized gunnery.

(2) The VCOT trailers are mobile and can be coordinated for transport to the unit's training location.

*d. Operator Driver Simulator (ODS):*

(1) The ODS is a high fidelity immersive technical skills trainer for instructing Soldiers how to safely operate wheeled vehicles in the army inventory. The simulator replicates HMMWVs, HEMTT series vehicles with trailer, family of MTVs, Heavy Equipment Transporter with trailer, M-ATV, and the COUGAR

(2) The ODS trailer is mobile and can be coordinated for transport to the unit's training location.

(3) The ODS is a 4-cabin trailer, able to train 4 Soldiers in 4 separate platforms simultaneously. FTIG does maintain a single cabin ODS trailer (1ea trainee at a time) which can be additionally requested in the remarks block of the unit's RFMSS request.

*e. Common Driver Trainer (CDT):*

(1) The CDT is a high fidelity, full motion, driver simulator, replicating the functions and realistic feedback of operating the Stryker platform in all terrains and environmental conditions.

(2) The CDT is static and can only be requested for use on the installation.

(3) A FTIG maintenance representative will be on the premises during a CDT event.

*f. Games For Training (GFT) – Virtual Battlespace (VBS):*

(1) The GFT is a fully interactive, three-dimensional training system providing a premium synthetic environment suitable for a wide range of military operations for up to 52 Soldiers on a single suite. The GFT suite facilitates the execution of individual through collective tasks, battle drills, operations, and Tactical Exercises without Troops (TEWT).

(2) The GFT suites are mobile and can be coordinated for transport to the unit's training location.

(3) The Asymmetric Threat Training Support Program (ATTSP) on FTIG maintain and operate the GFT Suites for units. The ATTSP personnel will travel and operate the GFT at a unit's location. ATTSP support and travel is at no cost to the unit.

*g. Call For Fire Trainer (CFFT) III:*

(1) The CFFT can conduct training on basic call-for-fire tasks as well as indirect fire, Close Air Support (CAS), and Naval Surface Fire Support (NSFS). It is a procedural trainer designed to provide both basic instruction of common tasks associated to indirect fire as well as cantonment training to qualified Forward Observers.

(2) The CFFTs are static and can only be requested for use on the installation.

(3) FTIG houses a CFFT III 1:12 (1 instructor / 12 students) and a CFFT III 1:30 (1 instructor / 30 students). Units can contact the Ground Simulations Office for a better understanding on which simulator will optimally support their event.

*h. Brigade Combat Team – Individual Readiness Trainer (BCT-IRT) Unstabilized Gunnery Trainer – Individual (UGT-IRT™):*

(1) The BCT-IRT integrates individual, unstabilized gunnery training into a modular and transportable device. The BCT-IRT satisfies table II gate to live fire requirements IAW TC 3-20.31.

(2) The BCT-IRT is mobile and can be coordinated for transport to the unit's training location.

(3) The BCT-IRT is operated by unit-provided personnel only.

(4) BCT-IRTs on FTIG can be outfitted with M240B, M2, and MK19 replicated weapon systems.

*i. Stryker Crew Trainer (SCT):*

(1) The SCT trains Stryker vehicle crews equipped with a Remote Weapons System (RWS). It is designed to train crews in basic and advanced gunnery skills. Training with the SCT satisfies Table II, gate to live fire, requirements outlined in TC 3-20.31.

(2) The SCT is mobile and can be coordinated for transport to the unit's training location.

*j. Stryker Mobile Gun System Advanced Gunnery Training System (MGS-AGTS):*

(1) The MGS-AGTS and Table AGTS (TAGTS) are gunnery-training simulators for vehicle commander/gunner teams for the Stryker MGS vehicle. They are used to develop and sustain individual, crew and platoon precision gunnery skills to a level of proficiency that permits transition to live-fire training.

(2) The MGS-AGTS/TAGTS are mobile and can be coordinated for transport to the unit's training location.

(3) The MGS-AGTS/TAGTS are operated by unit-provided personnel only.

*k. Mobile Close Combat Tactical Trainer (CCTT):*

(1) The mobile CCTTs support 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 and M2/M3 crews.

(2) The CCTT trailers are mobile and can be coordinated for transport to the unit's training location through the CCTT contractor team.

(3) The CCTT program is regionally aligned and national focused. Scheduling and priority of support is coordinated at the national level and not IAW priorities set forth in Table 1-2. Units are still required to submit a RFMSS request to utilize the systems.

(4) Once an event is approved in RFMSS, the CCTT contractor team will reach out to the requesting unit for further coordination.

(5) Units can contact the office of the CCTT team at 717-861-2858 with general inquiries and training coordination.

*l. AVCATT AND NCM3:*

*a.* Units will request the AVCATT and NCM3 through the ARNG-AVO RFMSS site at <https://rfmss2002.belvoir.army.mil/ARNG-AVO/Pages/Default.aspx>.

*b.* The AVCATT supports training in a collective and combined arms simulated battlefield environment. Collective and combined arms simulation exercises provide commanders the capability to train supporting individual tasks required to conduct unit collective training and rehearsals.

*c.* The NCM3 augments collective training for utility and cargo aircraft and provide additional capability for individual and crew training. The NCM3 facilitates Non-Rated Crew Member simulation of door gunnery, sling-load operations, hoist operations, crew coordination, and actions in a virtual environment in accordance with tactical tasks.

*d.* The NCM3 trainer can be integrated with the AVCATT system for training crew and collective tasks, as well as with high fidelity simulators for utility and cargo aircraft.

*e.* The AVCATT and NCM3 trailers are mobile and can be coordinated for transport to the unit's training location through the contractor team Site Lead.

*f.* The AVCATT and NCM3 program is regionally aligned and national focused. Scheduling and priority of support is coordinated at the national level and not IAW priorities set forth in Range Scheduling Chapter 1, paragraph 1-8. Units are still required to submit a RFMSS request to utilize the systems.

*g.* Government provided contractor teams operate the AVCATT and NCM3 only. Once the RFMSS request is approved, the contractor team shall reach out to the requesting unit for further coordination.

*h.* Units can contact the office of the AVCATT and NCM3 contractor team at 717-861-6780 with general inquiries and training coordination.

## **9-5. Medical Simulations**

*a.* The FTIG MSTC is a regional training center that hosts, facilitates, and conducts all 68W sustainment, combat lifesavers, and medical training. The MSTC entails classrooms, combat simulation rooms, and a medical Military Operations in Urban Terrain (MOUT) site. Units can review the MSTC Memorandum of Instruction (MOI), located in the RFMSS library, for a list of standard training courses.

*b.* The FTIG MSTC, its simulators, and training equipment are located in building 16-271 and can only be requested for training on the installation.

*c.* The FTIG MSTC can conduct modified individual and collective training events at the unit's request.

*d.* Units must complete and submit the electronic training request form, located in the RFMSS library, prior to receiving approval to their RFMSS request.

*e.* The MSTC additionally establishes courses each quarter to support PAARNG 68W readiness. Transient units can contact the MSTC to identify vacancies and request to fill with their Soldiers. These courses are:

1. 68W TC3 Sustainment
2. TC 8-800 Medical Sustainment
3. Combat Life Saver (CLS) Certification
4. CLS Recertification
5. Basic Lifesaver / Healthcare Provider
6. CPR Heart saver - AED

## **9-6. Constructive Simulations**

*a.* The FTIG Mission Training Complex (MTC) houses, schedules, and operates the Joint Land Component Constructive Training Capability (JLCCTC), Multi-Resolution Federate - Brigade (MRF-B), and the Intelligence and Electronic Warfare Tactical Proficiency Trainer (IEWTPT) Tactical Control Cell (TCC) ISO Battalion and above staff and Command Post Exercises (CPXs). Units can reference the MTC Course Catalog, located in the RFMSS library, for further information.

*b.* The MTC-FTIG Campus is comprised of buildings 5-4 (MTC HQs), 5-3 (Multi-purpose TOC pad), 5-4 (Exercise Building), 5-2 (classroom), 5-102 (IEWTPT) and 6-202 (response cell building not owned by MTC). Units can contact the Operations Office at 717-861-6562 with general inquiries.

*c.* Scheduling for both training and simulation exercises will be IAW Chapter 1, paragraph 1-7.

*d.* MTC-FTIG provides Mission Command staff training for battalion and higher echelons at the unit's desired location, to enable commanders to meet Mission Command training aim points and readiness requirements during pre-mobilization training. MTC-FTIG provides mission command training throughout its assigned region including eleven states from the District of Columbia through Maine.

*e.* MTC Operations Staff attends all unit Real Life Support cell synchronization meetings to conduct facility management including security planning, building access, equipment shipping, classified storage and clearing procedures.

- (1) Officer Senior Trainer/Enlisted Senior Trainer (OST/EST): Main point of entry to obtain, review and process training requests IAW the Commander's Intent.
- (2) Technical Support Team (TST): Assist units with establishing their CP, test power generation, ensure proper systems integration.
- (3) Doctrinal Training Teams (DTT): Warfighting function subject matter expert (SME) who provides doctrine and MDMP training to staffs in preparation for mission command exercises.
- (4) Mission Command Systems Team (MCST): MCS Operator Training prior to the training event and over the shoulder training during the STAFFEX, ISX, CPX, and FTX.
- (5) Entity Resolution Federation Support Team (ERF-ST): Builds the simulation database to support the Master Event List in order to stimulate the Mission Command Systems.
- (6) Network Operations Security Center (NOSC): Setup and configuration of servers to allow units an internal training capability. Network configuration, assists training units with connectivity issues across a broad spectrum, additionally, provides phones and printers in the exercise environment.

## **Appendix A References**

### **Section I Required Publications**

Unless otherwise stated, all publications are available at <http://www.apd.army.mil/>.

#### **193 SOW 13-212 Supplement 1**

**AFI 13-212 Range Planning and Operations**

**AFI 13-212 ANG Supplement 1**

**AR 11-9 The Army Radiation Safety Program**

**AR 15-6 Procedures for Administrative Investigations and Boards of Officers**

**AR 75-1 Malfunctions Involving Ammunition and Explosives**

**AR 95-1 Flight Regulations**

**AR 190-11 Physical Security of Arms, Ammunition, and Explosives**

**AR 200-1 Environmental Protection and Enhancement**

**AR 200-2 Environmental Effects of Army Actions**

**AR 385-10 The Army Safety Program**

**AR 385-40 Army Accident Investigations and Reporting**

**AR 385-63 Range Safety**

**AR 385-64 Ammunition and Explosives Safety Standards**

**ATP 4-43 Petroleum Supply Operations**

**ATP 5-19 Risk Management**

**DA PAM 385-40 Army Accident Investigations and Reporting**

**DA PAM 385-63 Range Safety**

**DA PAM 385-64 Ammunition and Explosives Safety Standards**

**DA PAM 700-16 The Army Ammunition Management System**

**FTIG Aviation Procedures Guide**

**FTIG Regulation 215-2 Hunting, Fishing, and Outdoor Recreation in the Training Areas**

(Available from the Department of Environmental Management)

**FTIG Regulation 700-4 Ammunition Procedures**

(Available from the FTIG ASP)

**NGR 385-63 Army National Guard Range Safety Program, Policy, and Standards**  
(Available at [www.ngbpmc.ng.mil](http://www.ngbpmc.ng.mil))

**MIL-HDBK-828A Laser Safety on Ranges and in Other Outdoor Areas**

**PAARNG Waste Management Plan**  
(Available from the Department of Environmental Management)

**TB 9-1300-385 Munitions Restricted or Suspended**

**TB MED 524 Occupational and Environmental Health: Control of Hazards to Health from Laser Radiation**

**TC 25-8 Training Ranges**

**TC 3-22.32 M41 Improved Target Acquisition System (ITAS) and Tube-Launched, Optically-Tracked, Wire-Guided/Wireless (TOW) Missile**

**TC 3-22-37 Javelin-Close Combat Missile System, Medium**

**TM 9-1010-230-10**

Operator's Manual for Machine Gun, 40mm, MK19 MOD 3, NSN 1010-01-126-9063 (EIC 4AE) Machine Gun, 40mm, MK19 MOD 3, with Sight Bracket NSN 1010-01-490-9697 Machine Gun, 40mm, MK19, Uppgunned Weapon Station (UGWS) NSN 1010-01-362-6513 (This Item is Included on EM 0065)

**TM 9-1370-207-10**

Operator's Manual for Pyrotechnic Simulators (Reprinted w/ Basic Incl C1-3) (This Item is Included on EM 0162)

**TM 9-6920-3700-10**

Close Combat Mission Capability Kit (CCMCK) Training Device, Fire Dye Marking Ammo M16/M4 (NSN 6920-01-564-9657) Training Device, Fire Dye Marking Ammo: M249 (6920-01-564-9655) Training Device, Fire Dye Marking Ammo: M9 (6920-01-564-9656) Training Device, Fire Dye Marking Ammo: M11 (6920-01-564-9658)

**TRADOC PAM 350-9 TRADOC Training Devices for Army Wide Use**

(Available at <https://adminpubs.tradoc.army.mil/pamphlets.html>)

**TSS-E TADSS Index and Device Catalog**

(Available on AKO)

## **Section II**

### **Related Publications**

A related publication is a source of additional information. The user does not have to read it to understand this publication. Unless otherwise stated, all publications are available at <http://www.apd.army.mil/>

**AR 15-6 Procedures for Investigating Officers and Boards of Officers**

**AR 25-30 The Army Publishing Program**

**AR 40-5 Preventive Medicine**

**AR 40-10 Health Hazard Assessment Program in Support of the Army Acquisition Process**

**AR 200-1 Environmental Protection and Enhancement**

**DA PAM 40-501 Hearing Conservation Program**



**AFI 48–139 Laser and Optical Radiation Protection Program**

(Available at <http://www.e-publishing.af.mil/>)

**ANSI Z136.1 American National Standard for Safe Use of Lasers**

(Available at <http://webstore.ansi.org/>)

**DODD 3000.03E DOD Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy**

(Available at <http://www.dtic.mil/whs/directives/>)

**DODD 5030.19 Military Airspace and Air Traffic Service Functions**

(Available at <http://www.dtic.mil/whs/directives/>)

**Department of Health, Education, and Welfare Publication Number 76–130 (Publication PB 266–426). Lead Exposure and Design Considerations for Indoor Firing Ranges, Technical Information, December 1975, National Institute for Occupational Safety and Health (NIOSH)**

(Available at National Technical Information Service, (800) 553–6847.)

**FM 3–20.21 Heavy Brigade Combat Team (HBCT) Gunnery**

**FM 3–22.65 Browning Machine Gun, Caliber .50, HB, M2**

**FM 3–34.210 Explosive Hazards Operations**

**FM 23–65 Browning Machine Gun, Caliber .50 HB, M2**

**FAA Handbook 7400.2 Procedures for Handling Airspace Matters**

(Available at [www.faa.gov/](http://www.faa.gov/))

**Federal Acquisition Regulations Subpart 7.5 Inherently Governmental Functions**

(Available at [http://www.acquisition.gov/far/html/Subpart%207\\_5.html](http://www.acquisition.gov/far/html/Subpart%207_5.html))

**Marine Corps TM 1185–14/1**

Operation, Organizational, and Intermediate Maintenance Instructions with Illustrated Parts Breakdown (Smoky Sam Simulator/Antiaircraft Artillery Visual Cueing System)

(Available at [http://www.logcom.usmc.mil/sp\\_logon/](http://www.logcom.usmc.mil/sp_logon/))

**Marine Corps TM 1185–14/2**

Loading and Firing Checklist for LMU–23A/E Single Bay Launcher

(Available at [http://www.logcom.usmc.mil/sp\\_logon/](http://www.logcom.usmc.mil/sp_logon/))

**Marine Corps TM 1290–12/1**

Operators' Manual-Simulator Laser Target (AN/GVT–1)

(Available at [http://www.logcom.usmc.mil/sp\\_logon/](http://www.logcom.usmc.mil/sp_logon/))

**MCO 3574.2J Entry Level and Sustainment Level Marksmanship Training with the M16A2 Service Rifle and M9 Service Pistol**

(Available at [www.marines.mil](http://www.marines.mil))

**MCO 8011.4 USMC Training Ammunition Class V (W) Materiel (Peacetime)**

(Available at [www.marines.mil](http://www.marines.mil))

**MCO P8020.10B Marine Corps Ammunition Management and Explosives Safety Policy Program**

(Available at <http://www.marines.mil>)

**MCWP 3–15.1 Machines Guns and Machine Gun Gunnery**

(Available at <http://www.marines.mil>.)

**NAVSEA SW020–AF–HBK–010 Motor Vehicle Driver and Shipping Inspector’s Manual for Ammunition, Explosives and Related Hazardous Materials**

(Available at <https://nossa.nmci.navy.mil/>)

**Technical Paper 18 Minimum Qualifications for Unexploded Ordnance (UXO) Technicians and Personnel**

(Available at <https://www.ddesb.pentagon.mil/documents/TechnicalPapers.aspx>)

**TM 43–0001–27**

Army Ammunition Data Sheets Small Caliber Ammunition (FSC 1305)

(Available at <https://www.logsa.army.mil/>)

**TM 43–0001–30**

Army Ammunition Data Sheets for Rocket Systems, Rocket Fuses, Rocket Motors (FSC 1340)

(Available at [https://www.logsa.army.mil/etms/find\\_etm.cfm](https://www.logsa.army.mil/etms/find_etm.cfm))

**TM 43–0001–37**

Army Ammunition Data Sheets for Military Pyrotechnics (FSC 1370)

(Available at <https://www.logsa.army.mil/>)

**TM 43–0001–38**

Army Ammunition Data Sheets for Demolition Materials

(Available at <https://www.logsa.army.mil/>)

**29 CFR 1910 Occupational Safety and Health Standards**

(Available at [www.access.gpo.gov/](http://www.access.gpo.gov/))

**40 CFR 260 and 266 Subpart M Environmental Protection Agency, Military Munitions Rule: Hazardous Waste Identification and Management; Explosives Emergencies; Manifest Exemption for Transport of Hazardous Waste on Right-of-Ways on Contiguous Properties; Final Rule**

(Available at [www.access.gpo.gov/](http://www.access.gpo.gov/))

**Section III**

**Forms**

Fort Indiantown Gap Forms (FF) are specific to this installation and listed below. Digital copies are available on the RFMSS Library.

**DA Form 4379**

Malfunction Report

**DA Form 2188**

Data Sheet

**DA Form 2188-1**

LHMBC/MFCS Data Sheet

**DA Form 2399**

Computers Record (LRA)

**DA Form 2601-1**

MET Data Correction Sheet for Mortars

**DA Form 3474**

Missile Firing Data Report (Javelin)

**DA Form 4504**

Record of Fire

**DA Form 4513**

Record of Missions Fired

**DA Form 5429-R**

Conduct of Fire

**DA Form 7213-R**

Missile Firing Data Report (Dragon and TOW) (LAR)

**DD Form 626**

Motor Vehicle Inspection, Transporting Hazardous materials.

**DD Form 2977**

Deliberate Risk Assessment Worksheet (DRAW)

**FTIG Form 350-3**

Installation In-processing

**FTIG Form 350-4**

NON-DoD Request for Facilities and Resources

**FTIG Form 350-5**

Request Amendment

**FTIG Form 350-6**

High Hazard Authorization

**FTIG Form 350-7**

Convoy and Road March Overlay

**FTIG Form 350-8**

Non-Standard Training Request (NSTR)

**FTIG Form 350-9**

Round out of Safe

**FTIG Form 350-10**

Explosive Firing Log

**FTIG Form 350-11**

Civilian Request for the use of PAARNG Training Center Facilities (NON-Aviation)

**FTIG Form 350-12**

Co-Use Agreement

## **Appendix B Internal Control Evaluation**

### **B-1. Function**

The function covered by this evaluation is the implementation of the installation range safety program and the management of the installations training resources and facilities.

### **B-2. Purpose**

The purpose of this evaluation is to assist the Senior Commander, Garrison Commander and the Director of Plans, Operations, Training and Security in evaluating the intern controls outlined. It is not intended to cover all controls.

### **B-3. Instructions**

These internal controls must be formally evaluated at least once every 5 years. The installation range safety program reflects current army doctrine. The development of the installation training complex is done so in compliance with local, state and federal environmental regulations. Training is planned, coordinated and executed in a manner that safeguards personnel and ensures resources are sustained for future use.

### **B-4. Test Questions**

- a. Are units able to meet desired training objectives that the installation claims can be accomplished?
- b. Are OICs and RSOs trained and proficient in the weapons system(s) being deployed through unit level training and the installations range safety program?
- c. Does this publication and the range safety program reflect the latest applicable Army doctrine?
- d. Are range and training development and improvement activities done in coordination with local environmental office(s)?
- e. Are all training activities, both in the air and on the ground, coordinated prior to and on the day of execution?
- f. Are risk assessments at the unit level reviewed before and during execution of training?
- g. Are management practices efficient in the reduction of waste in regards to sustainment of facilities and resources?
- h. Are range safety inspectors trained?

### **B-5. Supersession**

This evaluation is the first of its kind and will be updated no less than 5 years or upon the review and republication of this regulation.

### **B-6. Comments**

Help to make this a better tool for evaluating management controls. Submit comments to the Directorate of Plans, Operations, Training and security (DPOTS), Building 11-11 FTIG, Annville, PA 17003.

## **Glossary**

### **Section 1 Abbreviations**

#### **3R**

Recognize, Retreat and Report

#### **AC**

Aircraft

#### **ACOG**

Advanced Combat Optical Gunsight

#### **AEROEVAC**

Evacuation by air

#### **AHA**

Ammunition Holding Area

#### **AMC**

Air Mission Commander

#### **AMV**

Army Motor Vehicle

#### **ANG**

Air National Guard

#### **ARNG**

Army National Guard

#### **ARNG-AVO**

Army National Guard Aviation Office

#### **ASP**

Ammunition Supply Point

#### **AT**

Annual Training

#### **ATSC**

Army Training Support Center

#### **ATWESS**

Anti-Tank Weapons Effect Signature Simulator

#### **AVCATT**

Aviation Combined Arms Tactical Trainer

#### **AZ MK**

Azimuth Mark

#### **BCT-IRT**

Brigade Combat Team Individual Readiness Trainer

**BEM**

Bureau of Environmental Management

**CACTF**

Combined Arms Collective Training Facility

**CAS**

Close Air Support

**CCMCK**

Close Combat Mission Capability Kit

**CCO**

Close Combat Optics

**CCTT**

Close Combat Tactical Trainer

**CDT**

Common Driver Trainer

**CFFT**

Call for Fire Trainer

**COC**

Chain of Command

**COOP**

Continuity of Operation Program

**CPX**

Command Post Exercise

**CRN**

Combat Radio Network

**DAR**

Department of the Army Representative

**DFCS**

Digital Fire-Control System

**DMVA**

Department of Military and Veterans Affairs

**DOD**

Department of Defense

**DOD FLIP**

Department of Defense Flight Information Program

**DODIC**

Department of Defense Identification Code

**DPOTS**

Directorate of Plans, Operations, Training and Security

**DPW**

Directorate of Public Works

**DRAW**

Deliberate Risk Assessment Worksheet

**DTT**

Doctrinal Training Teams

**DU**

Depleted Uranium

**EOD**

Explosive Ordnance Disposal

**EPW**

Enemy Prisoner of War

**ERF-ST**

Entity Resolution Federation Support Team

**EST II**

Engagement Skill Trainer

**EST**

Enlisted Senior Trainer

**FAA**

Federal Aviation Administration

**FARP**

Forward Arming and Refueling Point

**FDC**

Fire Direction Center

**FDO**

Fire Direction Officer

**FO**

Forward Observer

**FP**

Firing Point

**FPL**

Final Protective Lines

**FTIG**

Fort Indiantown Gap

**FTX**

Field Training Exercise

**GFT**

Games for Training

**GLPS**

Gun Laying and Positioning System

**GSA**

Government Services Administration

**GTA**

Graphical Training Aid

**HAZMAT**

Hazardous Material

**HE**

High Explosive

**HIV**

Human Immunodeficiency Virus

**HMG**

Heavy Machinegun

**HQ**

Headquarters

**IAW**

In Accordance With

**ICM**

Improved Conventional Munition

**IDF**

Indirect Fire

**IDT**

Inactive Duty Training

**IED**

Improvised Explosive Device

**IEWTPT**

Intelligence and Electronic Warfare Tactical Proficiency Trainer

**IMLC**

Infantry Mortar Leaders Course

**ISX**

Integrated Staff Exercise

**ITAM**

Integrated Training Area Management

**ITC**

Installation Training Complex

**JAAT**

Joint Air Attack



**JFHQ**

Joint Forces Headquarters

**KMUI**

Muir Army Airfield

**LAGS**

Loaders Armored Gun Shield

**LAR**

Logistics Assistance Representative

**LFSH**

Live Fire Shoot House

**LSDZ**

Laser Surface Danger Zone

**LZ**

Landing Zone

**MAC**

Modular Artillery Charge

**MAX ORD**

Maximum Ordinance

**MCST**

Mission Command Systems Team

**MDMP**

Military Decision Making Process

**MET**

Meteorological

**MET**

MRAP Egress Trainer

**MGS-AGTS**

Stryker Mobile Gun System Advance Gunnery Training System

**MIM**

Military Installation Map

**MIPR**

Military Interdepartmental Purchase Request

**MOS**

Military Occupation Specialty

**MRAP**

Mine Resistant Ambush Protected

**MTC**

Mission Training Complex

**NCM3**

Non-rated Crew Member Manned Module

**NCO**

Non-Commissioned Officer

**NET**

New Equipment Training

**NEW**

Net Explosive Weight

**NGB**

National Guard Bureau

**NOHD**

Nominal Ocular Hazard Distance

**NOSC**

Network Operation Security Center

**NOTAM**

Notice to Airman

**NIPR**

Non-secure Internet Protocol Router

**NLT**

No Later Than

**NSTR**

Non-Standard Training Request

**NVD**

Night Vision Devices

**ODS**

Operator Driver Simulator

**OGA**

Other Government Agency

**OIC**

Officer in Charge

**OP**

Observation Post

**OPFOR**

Opposition Force

**OST**

Officer Senior Trainer

**PC**

Pilot in Command

**PE**

Probable Error

**PHA**

Periodic Health Assessment

**PMI**

Preliminary Marksmanship Instruction

**POL**

Petroleum, Oils and Lubricants

**POV**

Privately Owned Vehicle

**PPE**

Personal Protective Equipment

**PPR**

Prior Permission Request

**PX**

Post Exchange

**QASAS**

Quality Assurance Specialist Ammunition Surveillance

**QRS**

Quick Response Service

**RCO**

Range Clearance Officer

**RETS**

Remote Engagement Target System

**RFMSS**

Range Facility Management Support System

**RMA**

Range Management Authority

**ROZ**

Restricted Operating Zone

**RSCR**

Range Safety Certification Roster

**RSO**

Range Safety Officer

**SCT**

Stryker Crew Trainer

**SDZ**

Surface Danger Zone

**SIPR**

Secured Internet Protocol Router

**SITREPS**

Situational Report

**SME**

Subject Matter Expert

**SOP**

Standard Operating Procedure

**SSMO**

Substance Supply Management Office

**SSO**

State Safety Office

**STAFFEX**

Staff Exercise

**SUA**

Special Use Airspace

**TACOM**

Tank-Automotive and Armaments Command

**TAGTS**

Table Advanced Gunnery Training System

**TDA**

Table of Distribution and Allowance

**TMP**

Transportation Motor Pool

**TOT**

Time on Target

**TP**

Training Practice

**TRACR**

Targetry Range Automated Control and Recording

**TSC**

Training Support Center

**TS-MATS**

Training Support Material Army Wide Tracking System

**TST**

Technical Support Team

**TUASOF**

Tactical Unmanned Aerial Systems Operations Facility

**URM**

Urban Rifle Marksmanship

**USMCR**

Unit States Marine Corp Reserve

**USNR**

United States Navy Reserve

**USO**

United Service Organization

**USPFO**

United States Property and Fiscal Office

**UTES**

Unit Training Equipment Site

**UXO**

Unexploded Ordinance

**VBS**

Virtual Battlespace

**VCOT**

Virtual Convoy Operations Trainer

**VTC**

Video Teleconference

**WO**

Warrant Officer

**Section II****Terms****Confirmation Letter**

A digital letter sent out by the Scheduling Department notifying organizations that their requests have been reserved.

**Check-Fire Freeze**

A command issued by Range Operations to the OIC and/or RSO in the event of a serious safety violation or incident. The OIC and RSO will cease training, freeze the training area by leaving all equipment and weapons in place and consolidating all personnel to a safe location. Range Operations will direct all unit actions until the check-fire freeze command is lifted.

**Co-Use Agreement**

Arrangement between multiple units, approved by Range Operations, for the use of the same training area, range, or facility.

**Cross-Fire**

The term utilized to describe when a person actively conducting live-fire, fires their weapon system at the adjacent firing points associated targets. Cross-fires void established surface dangers zones and can cause damage to equipment or injury to participating and non-participating personnel.

**Danger area**

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

**Danger area A**

The secondary danger area (buffer zone) that laterally parallels the impact area or ricochet area (depending on the weapon system) and contains fragments, debris, and components from frangible or explosive projectiles and warheads functioning on the right or left edge of the impact area or ricochet area.

**Danger area B**

The secondary danger area (buffer zone) on the downrange side of the impact area and Area A which contains fragments, debris, and components from frangible or exploding projectiles and warheads functioning on the far edge of the impact area and Area A.

**Danger area C**

The secondary danger area (buffer zone) on the up range side of the impact area and parallel to Area B which contains fragments, debris, and components from frangible or exploding projectiles and warheads functioning on the near edge of the impact area.

**Danger area D**

The safe area between Areas C and E for indirect, overhead fire of unprotected personnel in training.

**Danger area E**

The danger area between an indirect fire weapon system and Area D. This area is endangered by muzzle debris, overpressure, blast, and hazardous impulse noise. Personnel in service batteries firing from approved tactical configurations may occupy Area E.

**Danger area F**

The danger area to the rear of a weapon system that is endangered by back-blast debris, overpressure, blast, and hazardous impulse noise. DA PAM 385-63 • 16 April 2014 227

**Danger area H**

The area to the rear of a weapon system (for example, TOW missile) that contains warhead particles (collapsed shape charge and warhead fragments) during an "eject only" firing event.

**Danger area I**

The area immediately in front of certain missile weapon systems designated as the initial zone of impact for "eject only" firing events. Area I may not be occupied under deviation.

**Danger area R**

The portion of the SDZ behind the firer where personnel, equipment and facilities may be endangered by ricochets to the rear of the firing line.

**Distance D**

Distance along specific angle, measured from the weapon target line, at the firing position down range for selected direct fire weapons. Distance D defines maximum projectile distance along this line.

**Distance L**

The distance down range from the launch point where the launch dispersion angle intersects the flight corridor boundaries for the PATRIOT missile.

**Distance W**

The maximum lateral distance a projectile will ricochet after impacting within the dispersion area. Distance W defines the maximum lateral edge of the ricochet area.

**Distance X**

The maximum distance a projectile (to include guided missiles and rockets) will travel when fired or launched at a given quadrant elevation with a given charge or propulsion system.

**Distance Y**

The maximum distance downrange at which a lateral ricochet is expected to occur when a projectile is fired at a given quadrant elevation.

**Double hearing protector (or protection)**

Wearing earplugs in combination with noise muffs or noise attenuating helmets. Impulse levels can be so high that single hearing protection does not adequately protect hearing.

**Dry Code**

An alpha-numeric code issued by Range Operations which terminates an authorization to conduct hazardous training.

**Dry firing status**

A firing condition where authorization to fire a weapon system has not been given or has been revoked by Range Operations. Also known as Cold firing status.

**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, Chapter 4, paragraph 4-11 FTIG Regulation 700-4.

**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

**Installation Training Complex**

Defined as the Ranges, Training Areas, Facilities and their respective safety buffers on the installation. FTIG's ITC is a controlled area that requires the Range Management Authorities approval for controlled access.

**Hang fire**

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 (also applies to HYDRA-70 2.75 rockets).

**Hazardous Training**

Any training activity which requires an OIC and RSO. OIC and RSO are required for any range, training facility, or training event listed in Table 1-1.

**Impact Area/Dudded**

Any area where explosive rounds or residue contact targets or target areas. The potential for unexploded ordnance, exists.

**Impact Area/Non-Dudded**

Any area where non-explosive rounds, residue, or laser beams contact targets or target areas.

**LFSH Master Trainer**

A Commander certified person(s) who has successfully completed the FTIG LFSH Trainer Course (or civilian equivalent) or has served as an OIC, RSO, or AI three or more times during LFSH live-fire training.

**Laser**

A device capable of producing a narrow beam of intense light (LASER-light amplification by stimulated emission of radiation).

**Laser buffer zone**

A safety margin on either side, above, and below the approved target area extending to a distance at which the beam is terminated by a backstop extending across the target zone or the NOHD limit is reached. A vertical buffer zone covers the angular distance below the highest point on a backstop or above the non-lasing area. The laser horizontal buffer zone covers the angular distance to the left of the left most target and to the right of the right most target.

### **Laser surface danger zone (LSDZ)**

A V-shaped zone designed to contain a laser beam with buffer zone on either side, above, and below the approved target.

### **Malfunction**

Abnormal functioning, failure of an ammunition item to function as expected when fired or launched, or when explosive items function prematurely when otherwise handled, maintained, stored, transported, and tactically deployed normally; This Includes hang fires, misfires, duds. 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 the following four classes:

- 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 involving any other nonperformance incidents (visual defects).

### **Maximum charge**

The total NEW 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.

### **Maximum Ordinate (MAXORD)**

In artillery and naval gunfire support, the height of the highest point in the trajectory of a projectile above the horizontal plane passing through its origin. Also called vertex height.

### **Misfire**

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

### **Net Explosive Weight (NEW)**

The actual weight in pounds of explosive mixtures or compounds, including the trinitrotoluene equivalent of energetic material, that is used in determination of explosive limits and explosive quantity data arcs.

### **Non-Standard Training**

Any use of a range or training area differing from uses listed in the Range SOP or any use of a range or training area for activities not normally conducted at FTIG and training in cantonment.

### **Occupation Time**

An alpha-numeric code given from Range Operations to allow a unit to enter a Training Area, Range or Facility. Units must request occupation time IMMEDIATELY upon entering a range or training area scheduled for use.

### **Priority List**

An order of precedence established to ensure appropriate allocation of limited installation resources.

### **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 OICs and RSOs performing those duties.

### **Range Safety Certification Roster (RSCR)**

A list of individuals who are certified to serve as Officers in Charge (OIC) and Range Safety Officers (RSO). Certification is a command function and will bear the Battalion Commanders signature (O-4 or higher with assumption of command orders). Signature authority for OGA's will be GS-11 or GS-12 and a civilian equivalent supervisor for civilian organizations. This Form will list First Name, Last Name, Rank and Last four (4) of individuals Department of Defense Identification number (DODID). For OGA's and civilian organizations, the last four (4) will be of a state or federal ID. RSCR's on file with Range Operations are valid no more than (NMT) one year from the date on the Form.



**Range Safety Test**

A written examination administered at the conclusion of the Range Safety Briefing to ensure unit OICs and RSOs are familiar with the FTIG 350-2. A passing score must be achieved prior to individuals being authorized to act as an OIC or RSO.

**Round out of safe**

An artillery or mortar round that impacts outside of the prescribed Target Box.

**Safety Violation**

A formal written request for information from Range Operations to the Battalion Commander (or equivalent for OGAs, Civilian Organizations) on matters surrounding serious safety infractions.

**Surface Danger Zone (SDZ)**

The ground and airspace designated within the training complex (to include associated safety areas) for vertical and lateral containment of projectiles, fragments, debris, and components resulting from the firing, launching, or detonation of weapon systems to include ammunition, explosives, and demolition explosives.

**Unexploded Ordnance (UXO)**

A military munition that: (1) has been primed, fused, armed, or otherwise prepared for action; (2) has been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installations, personnel, or material; and (3) remain unexploded, whether by malfunction, design, or any other cause.

**Wet Code**

An alphanumeric permission code issued by Range Operations authorizing a unit to begin hazardous training.

**Wet firing status**

A firing condition where authorization to fire a weapon system has been given by Range Operations. Also known as hot firing status.

