

West Point 350-11

Headquarters  
United States Military Academy  
West Point, NY 10996

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## RANGE AND TRAINING COMPLEX REGULATION

MASP

FOR THE SUPERINTENDENT:

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**SUMMARY.** This regulation outlines the ranges and training areas at West Point, NY. This regulation describes who may use the West Point training complex, when it may be used and how to request its use. It defines the safety standards which must be met before training can begin and the requirements which must be maintained during training.

**APPLICABILITY.** This regulation applies to:

- a. The United States Corps of Cadets, Active Army, Army National Guard, U.S. Army Reserve and the Reserve Officers Training Corps.
- b. All other Department of Defense (DoD) activities such as, but not limited to: The U.S. Navy and Navy Reserve, U.S. Marine Corps and Marine Corps Reserve, U.S. Air Force, Air National Guard and Air Force Reserve.

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c. All other U.S. Government agencies such as, but not limited to: Federal Bureau of Investigation, Drug Enforcement Administration, U.S. Naturalization and Immigration Service and the U.S. Coast Guard.

d. All state and local government organization such as, but not limited to: law enforcement agencies, public safety agencies, i.e., fire departments and ambulance corps and civil defense agencies.

e. All Department of the Army recognized civilian marksmanship clubs.

f. Any Civilian agency or individual/s wishing to use the range and training complex. See United States Military Academy (USMA) Regulation 210-6, Temporary Use of USMA Facilities.

**SUGGESTED IMPROVEMENTS.** The proponent of this regulation is the Directorate of Plans, Training, Mobilization and Security (DPTMS). Users are invited to send comments and suggested improvements on Department of the Army (DA) Form 2028 Recommended Changes to Publications and Blank Forms, dated February 1974, to the West Point Installation Range Officer, Building 1403 on Route 293, West Point, NY, 10996.

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**\* This regulation supersedes USMA Regulation No. 385-11 dated 1 June 1998**

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a. All aviation operations within the West Point Range and Maneuver Training Area (MTA) require prior coordination and Range Facility Management Support System (RFMSS) scheduling with the Range Office at (845) 938-3930 or (845) 938-8559. See paragraph 2-12, Scheduling of Airspace. The Local Flying Area (LFA) for United States Military Academy (USMA) at West Point consists of the airspace overlying the West Point Military Reservation (WPMR), including external reservation boundary routes and those routes necessary to transition between Stewart International Airport (SWF) and WPMR. The WPMR airspace consists of the Cantonment Area (CA), located Northeast of New York State (NYS) Highway 9W and Southeast of Route 218 and the West Point Maneuver Training Area that lies to the West of Highway 9W and extends both North and South of Route 293 to the reservation boundaries. The LFA consists of two types of airspace: Uncontrolled and Special Use. Refer to the West Point Aviation Procedures Guide (APG) for specific requirements and guidelines involving aviation operations at the USMA. The APG will receive special emphasis during the mandatory aviation Safety Briefing conducted by the 2nd Aviation Detachment (2AV) at (845) 567-1209, required prior to conducting aviation operations on the WPMR. Obtain a digital copy of the APG from the USMA G3/5/7 at (845) 938-2272. Non-Tenant units requesting access to HLZs in the West Point MTAs for helicopter operations will contact the Range Office at (845) 938-3930. External aviation units shall adhere to all pertinent Range Office regulations and internal SOPs along with procedures and guidelines in the West Point APG..... 41

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## CHAPTER 1 OVERVIEW AND RESPONSIBILITIES

**1-1. Purpose.** This regulation prescribes local range safety and operational policies to prevent accidents in range operations and related live fire exercises. It provides the commander with maximum flexibility to conduct realistic training. These procedures, when used in conjunction with the applicable technical and training publications for particular weapons and munitions, will minimize the possibility of an accident during live-fire exercises and training being conducted in maneuver areas.

**1-2. Applicability.** This regulation applies to all members of the uniformed services, state, federal and all other users authorized to conduct training at West Point. It is also applicable to all areas of West Point, which are being or have been used for training and live fire exercises.

**1-3. References.** Related publications are listed in Appendix S.

**1-4. Explanation of Terms.** Abbreviations and special terms used in this regulation are explained in the glossary at Appendix S.

**1-5. West Point Range Operations.** Location: Building 1403 on New York State Highway 293, West Point, NY, 10996. Hours of operation: Monday through Friday 0830-1700. Open on weekends and holidays by exception only. Routine administrative range business is conducted Monday through Friday 0900-1630. Additional information: West Point Range Operations does not maintain 24 hour operations. Units approved to conduct training before and or after normal operating hours must ensure that reliable communications are available with the West Point Military Police desk and Directorate of Emergency Services (DES) in the event of an emergency.

### **1-6. Responsibilities.**

a. Installation Range Safety Officer (IRSO). The Garrison Commander (GC) is the Installation Range Safety Officer. The GC prescribes the policies and supervises the implementation of regulations and directives required to establish a range safety program. The Range Operations Officer, Directorate of Plans, Training, Mobilization and Security (DPTMS) are the GC's representative in the day-to-day business of range operations.

b. Range Control Officer (RCO). The Range Officer, Training Division, DPTMS, is designated as the West Point Installation Range Officer and supervises the implementation of policies established by Army Regulations and the USMA Superintendent and West Point. He ensures each commander or officer in charge is briefed on the special safety instructions for each range scheduled to be used, and supervises the Range Branch staff. Responsible for the following:

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- (1) Management of the Installation range program.
- (2) Supervises and enforces Department of the Army (DA) and West Point Policies.
  - (3) Plans updates to the ranges.
  - (4) Withdraws or suspends Installation training complex privileges from any person, organization, agency or club that willfully violates AR 385-63, DA PAM 385-63, local regulations and/or procedures; or from any person whose ability or conduct is incompatible with the safe use of government ranges and training facilities.
  - (5) Approves civilian visits within the range complex.
  - (6) Supervises Range Operations personnel.
  - (7) Validates and schedules requests for the use of the range and training complex.
  - (8) Conducts incoming unit safety briefing and provide range certification to the OIC and RSO's.
  - (9) Provides units and activities using the training complex with an environmental briefing in conjunction with the Integrated Training Area Management (ITAM) Program Manager.
  - (10) Advises the DPTMS Chief of Training (COT) on all Sustainable Range Programs (SRP) modernization projects.
  - (11) Operates Range Operations during all firing and hazardous training.
  - (12) Inspects all ranges during operations for safe operating procedures, proper medical coverage and maintenance.
  - (13) Immediately orders "Cease Fire" when a safety violation is detected.
  - (14) Authorizes the resumption of firing after safety deficiencies are corrected or delegates such authority to Range Operations personnel following a "Cease Fire."
  - (15) Immediately inform the COT and the West Point Safety Office at, (845) 938-3717 of any accidents and other serious incidents occurring within the training complex.
- c. Garrison Safety Office. The Garrison Safety Officer monitors the effectiveness of the enforcement of the West Point Range Safety program. The GSO is immediately advised by the appropriate commander of any range accident resulting in the injury or death of military or civilian personnel or damage to equipment with a value greater than \$2,000.00. The GSO is also advised of range safety incidents not involving injuries or death when determined by the RCO.
- d. Directorate of Plans, Training, Mobilization and Security (DPTMS).
  - (1) Advise the Garrison Commander and the Real Property Planning Board (RPPB) on matters related to the training complex.
  - (2) Responsible for the day-to-day operation of the training complex.
  - (3) Supervise Range Operations in the execution and enforcement of this regulation.
  - (4) Notify appropriate agencies of range firing and danger areas.
  - (5) Develop programs and policies that ensure safe range operations.



(6) Develop the Installation range modernization program that supports the Senior Commander's training mission. Ensures priorities are established and work coordinated with other directorates.

(7) Review and make administrative and technical recommendations that affect changes to this regulation and the Military Installation Map (MIM).

e. Real Property Planning Board (RPPB). RPPB responsibilities include the establishment and review of priority listings of range construction projects IAW West Point's Range Complex Master Plan (RCMP). Oversee the development of the RCMP and ensure all approved range projects are included for submission to the DA Training Support Systems (TSS) In-Progress Reviews (IPR) which convene semi-annually.

f. Commandant, United States Corps of Cadets (USCC). Responsible for the scheduling of all West Point ranges and Maneuver Training Areas (MTA) with DPTMS and Range Operations. USCC is responsible for providing current written training calendars to the COT DPTMS, Range Operations and the Adjutant General Post Bulletin. Ensures all USCC activities: Orienteering Club, Sandhurst, Infantry Tactics Club, Combat Pistol Team, Combat Weapons Team, Skeet Team, forward requests through Range Operations for use of all ranges and maneuver training areas. Submit requested maintenance, repair, new mission requirements and modernization within the training complex to the DPTMS, Range Operations. The RPPB will be used as a forum to ensure priorities of work are clear. Responsible for terminal guidance for Cadet Summer Training (CST) aircraft; after the aircraft has reported to Range Operations for air traffic control for Cadet Summer Training activities, in coordination with the DPTMS, Range Operations and the Air Force Liaison Officer. USCC will provide Range and Training Complex requirements through the RPPB.

g. Commander, United States Army Garrison West Point (USAG WP).

(1) Responsible to the Superintendent, United States Military Academy (USMA) for the operation of the training complex. The Superintendent, USMA is the approving authority for deviations resulting from range safety issues which reduce a Surface Danger Zone (SDZ) IAW AR 385-63. Ensure subordinate activities accomplish assigned tasks.

(2) Commander, USAG WP controls the Installation training reservation utilization through DPTMS-Range Operations.

h. Directorate of Emergency Services (DES). Conducts routine security checks of the training complex and report any incident(s) to Range Operations. Conducts physical security inspections of all temporary field ammunition storage sites ICW Range Operations. Immediately notify Range Operations if major discrepancies exist. DES will ensure all unauthorized POV's without a valid range pass are removed from the range and training complex. All POV passes are issued from the range operations fire desk. During hunting and fishing season, will provide enforcement of all Federal, State and post wild game and fishing laws IAW USMA Regulation 215-5, MWR, Hunting, Fishing and Trapping. The DES will ensure that all unauthorized persons found inside the posted areas are detained and turned over to state and local law enforcement

agencies. Fire and Emergency Services Division will coordinate with Range Operations regarding procedures for scheduling controlled burns and preventing, fighting and extinguishing range fires.

*i.* Directorate of Public Works (DPW).

(1) Support the training complex priority of work ICW Range Operations IAW the Installation Range Development Plan (RDP).

(2) Provide supplies and services to the training complex as requested by Range Operations IAW the applicable DPW Common Level of Service (CLS).

(3) Provide assistance with the repair or replacement of the electrical conduit support system.

(4) Perform maintenance and repair of real property ranges and training facilities within the complex.

(5) Responsible for assessing and maintaining range roads and bridges.

(6) Manage all forested lands through the Natural Resources Office, including harvesting and reforestation projects. Coordinate projects with Range Operations.

(7) Ensures the removal of snow on all designated priority range roads.

(8) Monitor activities in the training complex to ensure that all activities comply with applicable environmental regulations. Periodically assess the training complex to ensure usage is not degrading the environment.

(9) Develop environmental education programs ICW Range Operations and ITAM offices, keep training complex users informed of environmental issues affecting the training complex.

(10) Participate in RPPB.

(11) Maintains firebreaks, ranges and training courses to contain grass or weed fires.

(12) Remove all deer carcasses and transport them to the transfer station during normal duty hours.

(13) All DPW activities conducted within the training complex must be coordinated through the range scheduler at 845-938-4538 prior to the start of work.

*j.* Directorate of Family and Morale, Welfare, and Recreation (DFMWR). Will supervise designated Installation outdoor recreational areas. Ensures horseback riders are aware of live fire training events occurring inside the range and training complex prior to departing Morgan Farm. DFMWR will ensure that Morgan Farm is in compliance with designated riding trails and off limit areas during CST and Big-Game season. Establish a sign in/out process to safely account for riders. The DPTMS retains the authority to supersede or suspend MWR activities when necessary for the conduct of training or safety.

*k.* Network Enterprise Command (NEC). Provides IT support to the RCO in support of the WP Range and Training complex. Responsible for the assignment of radio frequencies to Range Operations in support of radio controlled target operations.

*l.* Directorate of Logistics (DOL). Will operate the West Point Ammunition Supply Point (ASP). Provide weapons and other equipment support to WP Ranges and

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Training complex. Responsible for securing the lower Ammunition Supply Point (ASP) gate located on Highway 293, West Point, NY, 10996, after normal duty hours unless training is being conducted.

*m.* Commander, Medical Department Activity (MEDDAC). Provide emergency medical support to West Point units and activities as requested in support of training within the WP Ranges and Training complex. MEDDAC will participate as a member of the RPPB as needed providing input regarding sustainment and determination of realistic training facility requirements in support of the West Point RCMP.

*n.* Public Affairs Office (PAO). Assists Range Operations with its Sustainable Range Awareness (SRA) Program, which provides the surrounding communities with information regarding the importance of West Point's military training mission. Notifies the West Point and local community officials and media regarding excessive noise produced during the conduct of live fire training in support of CST.

*o.* G3 Air Operations Officer. Serves as the Installation POC for all aviation units using the West Point Military Reservation for air operations. Coordinates airspace de-confliction between tenant and support aviation units. Additionally, conducts direct coordination with Range Operations on all aviation training events conducted within the MTA. Provides guidance on all UAS operations within the training complex.

*p.* Commander's/Organization, Person in Charge Responsibilities, Risk Management.

(1) Risk Management is the Army's primary system for reducing accidental losses. The risk management process will be completely integrated into the planning, preparation for and execution of all operations.

(2) An approved risk management plan will be submitted to Range Operations as part of the range packet for all firing ranges one week prior to execution.

(3) West Point, USMA and tenant units should be familiar with the Command Safety Program.

*q.* Unit Commanders. Will ensure there is unit compliance with applicable AR's, FM's, TM's and higher headquarters directives.

(1) The security of weapons, ammunition, and equipment.

(2) Establishing and maintaining a safety certification program for their OIC and RSO IAW AR 350-19, AR 385-63 and DA PAM 385-63. Certify members of the unit to perform duties as OIC and RSO.

(3) Provide a written OIC and RSO list to Range Operations.

(4) Assign OIC duties early enough to meet OIC responsibilities for scheduled range.

(5) Submit a Composite Risk Management (CRM) worksheet, live-fire scenario, and or graphic control measures of all maneuver training to be conducted no later than one week prior to the event start date.

(6) Identify personnel as competent and qualified to perform Laser Range Safety Office (LRSO).

- (7) Ensure units conducting training maintain continuous communications with the Range Operations Fire Desk for information and emergency purposes.
- (8) Clearing of all range and training facilities prior to departure.

## **CHAPTER TWO. SCHEDULING POLICIES, PRIORITIES AND PROCEDURES.**

### **2-1. General.**

This chapter describes the procedures to be utilized when requesting facilities to satisfy training requirements at West Point, New York. Once provided the resources, Commanders' are responsible for ensuring that resources are used only for authorized purposes and is canceled immediately when resource requirement no longer exist.

### **2-2. Training Area/Facility Scheduling Procedures.**

All range and maneuver area scheduling is coordinated through the Range Operations Scheduler at (845) 938-4538. The range scheduler is located at the Range Operations Office at Building 1403, Route 293, West Point, NY, 10996.

### **2-3. Range Operations Scheduler.**

- a. Schedules the use of West Point training resources, to include ranges, maneuver areas, and airspace within the MTA.
- b. Conducts a monthly Land and Range conference for all tenant units (current month plus one).
- c. Coordinates with units and staff agencies for final approval of:
  - (1) Road closures, gate access, recreation restrictions.
- d. Coordinates with governmental and non-governmental agencies for use of West Point training resources.
- e. Provides training for the use of the Range Facility Management Support System (RFMSS) to access the system, request and cancel unit training.
- f. Conducts weekly Land and Range meetings during CST.
- g. Coordinates the use of West Point's Special Use Airspace (SUA) R-5206 through Notice to Airmen (NOTAM) and Helicopter Landing Zone (HLZ) utilization within the MTA.

### **2-4. Scheduling Priorities.**

- a. USCC: CST, Sandhurst Competition and Execution, Cadet Regimental Training weekends. These events must be scheduled beginning on the first day of the second month out (current month plus one).
- b. Tenant Unit Green Cycle Training. MEDDAC, Military Police, Criminal Investigation Division, Federal Bureau of Investigation, United States Federal Mint and Installation Security (Police). These events must be scheduled beginning on the first day of the second month out (current month plus one).
- c. Directorate of Cadet Activities sanctioned Club & Team training. All USCC activities (Orienteering Club, Skeet and Trap Team, Sandhurst, Range Orientation Course, Tactics Club, etc.) will forward requests through S3, USCC to Range

Operations for ranges and training areas. All Cadet Activities must schedule range and training land prior to occupation.

*d.* United States Army Reserve and Army National Guard Units. Who maintain a current West Point Memorandum of Agreement (MOA) will have priority on weekends to the extent possible. National Guard and Reserve Units must ensure that a Military Interdepartmental Purchase Request (MIPR) is submitted prior to execution of training. Submit MIPR to USAG West Point RMO office not later than 30 days prior to training.

*e.* Non-Tenant (Civilian). Law Enforcement/Emergency Service organizations who maintain a current West Point MOA and MIPR.

(1) Civilian Marksmanship Programs (CMP) that are officially sanctioned to conduct training on federal Installations. These events must be scheduled beginning on the first day of the third month out (current month plus three).

(2) Any change or transition of priority must be requested in writing 90 days in advance to the DPTMS COT.

(3) Available ranges and courses that do not require overtime are booked on a first-come first-served basis at the monthly Land and Range conference hosted on the first Wednesday of each month in the Range Operations conference room.

**2-5. Non-Tenant Unit Authorization Procedures.** Authorization and fees for West Point non-tenant unit training are coordinated through the DPTMS Training Office. The following items must be included in the initial request:

- a.* Unit and POC.
- b.* Unit Identification Code (UIC).
- c.* Dates of anticipated training.
- d.* Training to be conducted.
- e.* MOA approved by Director, DPTMS.
- f.* MIPR funds are validated through the Garrison Resource Management Office.

**2-6. Changes or adjustments to existing reservations.**

- a.* Units may request edits to items on an existing reservation.
- b.* Requests for edits must list the following:
  - (1) Unit and POC.
  - (2) UIC.
  - (3) Start Date.
  - (4) End Date.
  - (5) Resource Requirements.
- c.* Changes must include-location/s scenario, composite risk management (CRM) worksheet, graphic control measures, combat lifesaver vehicle and personnel.
- d.* Changes or cancellations within one week or five working days of a scheduled event may result in charges being assessed against the unit.

**2-7. Cancellations.**

- a.* Cancellation of a scheduled event will be accomplished in RFMSS by the designated unit representative. All cancellations require an immediate phone call to the Range Operations scheduler.
- b.* Cancellations will be accomplished no later than 14 days before the event.
- c.* Cancellations inside five days will automatically be recorded as a "No Show" for

the scheduled unit. Late cancellations negatively impact resources, scheduled maintenance and overtime.

d. Units scheduled for training must screen all scheduled resources and cancel what is not needed in RFMSS. This allows limited resources to become more readily available for all training units.

e. Training areas/facilities previously scheduled will be canceled immediately when the requirements no longer exist.

f. Overbooking or blanketing of West Point facilities is unauthorized and will result in loss of future privileges and priority scheduling.

## **2.8. Coordinating Joint Use.**

a. Any unit may request joint use of range or training area from the Range Scheduler. RFMSS is the primary vehicle to be used for the coordination of joint use. Once the request for joint use is approved by the Range Officer, it must be scheduled in RFMSS.

b. The first Lieutenant Colonel (O-5) in the requesting unit's chain of command must approve the request for joint use before being submitted, if within five business days of the planned event.

c. The requester must provide enough information to enable the Range Scheduler to make a sound decision; for example: training areas, dates, specific mission times, tactical plan, overlay and unit name.

d. Range Scheduler may place restrictions on the requester based on the training plan. Large training events such as Sandhurst and CST require the OIC or committee chief to brief the training plan to the range officer and scheduler prior to approval.

e. The requester may need to adjust his training plan to comply with these restrictions.

(1) Joint use of land is coordinated with the designated Range Scheduler, using RFMSS. Upon approval by the scheduled unit, the requester will submit a request (in RFMSS) for Range Operations approval.

(2) The requesting unit is responsible for:

(a) Clearing and restoring the training area back to its original state.

(b) Coordinating a clearance inspection with Range Operations.

(3) Joint use may be denied, if:

(a) The Range Officer feels that joint use may jeopardize the training plan due to saturation of the area.

(b) The Range Officer may reject untimely requests for joint use (for example, a request submitted within 14 days of the requesting unit's planned training).

(c) Cancellation by the scheduled unit automatically cancels previously approved joint use with other units.

**2-9. Cadet Military Training.** USCC may schedule In-Progress Review with Range Operations for planning purposes. Range Operations is available to assist in planning for the following:

a. CST and academic year (AY) training requirements.

- b. Sandhurst train-up and Sandcom execution.
- c. Ranges for live fire training.
- d. Land for maneuver training.
- e. Training Courses.
- f. Coordination of airspace use for helicopter and parachute team training within the MTA.
- g. Coordination of Cadet Club and Team training.

**2-10. Live-Fire Safety Package.** The Range Safety Officer approves and maintains the Live-Fire Safety Package (LFSP). A LFSP is always required whenever a unit conducts any training that includes fire and maneuver, deviates from standard firing range SDZ's, stress fire, close quarters Battle or engaging in any type of steel target training. See Appendix I for LFSP requirements.

**2-11. Scheduling of Airspace.**

- a. All events requiring airspace usage in the Maneuver Training Area (MTA) shall be scheduled separately in RFMSS to include the total number and types of aircraft.
- b. West Point Special Use Airspace (R-5206) restricts airspace usage as published in DOD Flight Information Publications (FLIP); all other times by Notice to Airmen (NOTAM).
- c. See AP/1A for R-5206 Designated Altitudes, Hours of Activation and Boundaries.
- d. Tenant units will have priority when scheduling airspace. All others will be scheduled in the order received.
- e. The following missions shall be exempt from some of these requirements on a case-by-case basis, as time permits:
  - (1) Distinguish guest(s).
  - (2) Medical emergencies.
  - (3) Flights of a purely non-tactical nature outside of CST.
- f. CST aviation requirements shall be coordinated through Range Operations.

The following items are necessary prior to execution of any aviation mission:

- (1) Schedule all events in RFMSS 14 days prior to execution.
- (2) Schedule all (Helicopter Landing Zone) HLZ in RFMSS 14 days prior to execution.
- (3) Provide aerial overlay of all MTA routes and HLZ requirements. These routes must be approved by the Range Officer in order to deconflict SDZ and HLZ/Air Routes.
- (4) Pilots shall receive a Safety Briefing from the 2<sup>nd</sup> Aviation Safety Officer at (845) 567-1209 prior to operating ISO CST.
- (5) Composite Risk Management (CRM) worksheet turned in to the Range Office NLT five days prior to mission execution.
- g. Unmanned Aerial System (UAS) Procedures. Unmanned Aerial System (UAS) flights over the West Point MTS shall be conducted solely within R-5206 unless prior approval is granted through the USMA G3 Air Officer. Range 11 is the primary location

for all UAS training. To Schedule and Operate UAS within R-5206, please review the following information.

(1) Scheduling of airspace to support UAS missions shall be IAW this regulation.

(2) UAS missions shall be scheduled in RFMSS as "UAS Training" or as "UAS Support" of a maneuver or live fire event. All requests for UAS training shall be scheduled 90 days prior to execution. Once scheduled, units shall sign for the range, maintain radio contact during operations and meet all required notifications during the mission.

(3) Airspace in support of a training event shall be scheduled during quarterly Training Support Meetings (TSM's) for the land or range supporting the event.

### **2-12. Notice to Airmen (NOTAM).**

All required NOTAM shall be requested, in writing, through the West Point Range Scheduler, not later than seven days and no less than 30 days prior to conducting training for any of the following:

- a. Aviation training
- b. Unmanned Aerial System (UAS) Operations.
- c. Off Range Demolition (within a training area).
- d. Signal Unit Antennae (hazard to flight) placement.
- e. A NOTAM shall be issued only for events scheduled in RFMSS.

### **2-13. Artillery/Mortar Live Fire.**

a. Artillery and Mortar Live Fire is considered an airspace event and can be fired from Range 2 and Range 13 within the West Point Restricted Area (R-5206).

b. Each artillery live fire event will be scheduled in RFMSS.

c. Artillery and Mortar live fire requires observation (visual or electronic).

d. Units must contact Range Operations to request the applicable range safety card and certification.

e. Ranges 2 and 13: Fires up to 5,000 ft MSL between 0730-1900. A 30 minutes notification is required prior to firing.

f. Immediate cease-fire may be initiated in these areas by Range Operations to accommodate the West Point Fire and Emergency Services Division in conducting periodic inspections of existing fires or fire dangers within the impact area.

### **2-14. Impacts on Scheduling Ranges.**

a. Maintenance. Range Operations conducts mandatory semi-annual range and facility maintenance as directed by TC 25-8 Training Ranges during the weeks of 15 April through 15 May and 15 September through 15 October. Required maintenance impacts the entire training reservation as all assets are dedicated to specific maintenance tasks. Limited training on ranges or in training areas is authorized during this period annually.

b. Environmental. Environmental protection at West Point includes endangered



species and environmental surveys. These are annual requirements and are scheduled by the Range Operations Scheduling Office in coordination with DPW. To assist Range Operations with environmental efforts, units are responsible for reporting and correcting fuel and oil spills on ranges and training areas. Furthermore, due to the presence of numerous historic properties, caves, fossils and endangered species areas on West Point, all excavations require coordination.

c. Road Closures. Closures within training areas are required for some large scale training events where units require complete control of an area. To schedule a closure, units are required to:

- (1) Submit a request for road closure to Range Operations.
- (2) Include a strip map depicting the locations of traffic control points or barricades.
- (3) Provide traffic control points at intersections to divert or reroute and not return traffic.
- (4) Allow access to Range Operations personnel, contract personnel, emergency vehicles and DPW employees. .
- (5) Maintain radio contact with OIC during road closures.
- (6) Mine Torne Road can be very dangerous as signage and painted lines are inadequate. Training will not be conducted on this road unless scheduled through Range Operations.

## **2-15. Maneuver Training Areas (MTA).**

a. Access to West Point MTAs is prohibited without authorization from the West Point Range Operations in accordance with (IAW) Army Regulation (AR) 350-19 Chapter 4, AR/DA PAM 385-63 and USMA Regulation 350-11. Penalties for violations apply to military and civilian personnel and include the full range of statutory and regulatory sanctions including criminal prosecution under the Uniform Code of Military Justice (UCMJ) and/or applicable sections of the United States Code (USC). A violation of this policy is punishable as a violation of a lawful General Regulation under Article 92, UCMJ. All personnel will notify Range Operations prior to entering or departing the live fire areas. Only personnel in the performance of official duties or with an approved POV pass are permitted in the maneuver training area.

b. Requests to Range Operations to enter training areas will include:

- (1) Unit identification, name and rank of primary POC (military).
- (2) DOD Agency, Directorate, Office and name or primary POC (DOD Civilian).
- (3) Name and primary POC (non-DOD Civilian).
- (4) MTA, live fire and/or range areas which access is being requested.
- (5) Purpose for access.
- (6) Number of personnel.
- (7) Call back number if using mobile phone.
- (8) All requests must be submitted at least 72 hours in advance.

- c. Notification to depart training areas will include:
  - (1) Unit identification, name and rank of primary POC (military).
  - (2) DOD Agency, Directorate, Office and name or primary POC (DOD civilian).
  - (3) Name and primary POC (non-DOD Civilian).
  - (4) Training Area, live fire area or range departing.
  - (5) Number of personnel departing.
  - (6) Any personnel remaining must establish communications with Range Operations and call to clear area upon departing.
- d. Recreation:
  - (1) Recreational activities within the boundaries of West Point MTA and live fire areas are regulated by Range Operations.
  - (2) Approved recreational activities within the training reservation will not interfere with training or take priority over training.
  - (3) No recreational activities are allowed within the dedicated impact areas or previously recognized dud areas.
  - (4) The conduct of uncontrolled or unscheduled activities within the live fire.
  - (5) All recreational activity including camping must be conducted in designated recreation areas.
  - (6) Morgan Farm Horse Stables.
    - (a) All horseback riding that enters the training reservation must be monitored and controlled as to not allow riders to enter incorrect trails/roads or weapon danger areas.
    - (b) The manager will ensure a sign in and out roster and off limit area maps are provided to using patrons prior to departing the horse stables.
    - (c) All riders must receive an Unexploded Ordnance (UXO) safety briefing prior to entering the training reservation.
    - (d) Morgan Farm will closely monitor bimonthly range bulletins that close roads and trails due to live-fire training.

## **2-16. Range Bulletin.**

- a. Range Operations publishes a bimonthly range bulletin, available on the West Point server in the public folders.
- b. Once a training area or facility appears on the Training Bulletin, the using unit is responsible for clearance of the training area or facility with Range Operations.
- c. Military and Civilian employees at West Point must understand the extreme hazards existing on West Point ranges, training facilities and in live fire areas. Unaccompanied children or suspicious persons seen on any West Point training reservation, or inside areas designated to conduct live fire exercise, will be reported immediately to Range Operations at (845) 938-3930 or the Military Police at (845) 938-3333.

**WARNING: Individuals may not enter the training reservation without the approval of the Range Officer.**

## Chapter 3 Range Operations and Safety

### 3-1. Standards and Procedures.

- a. Range Safety Programs prescribed in AR 385–63 provide standards and procedures for the safe firing of ammunition. Range Operations establishes and monitors the following:
  - b. Any deviations to AR 385-63 and DA PAM 385-63 can only be approved by the Commandant, United States Military Academy.
  - c. Prepares and authenticates surface and vertical danger zones for direct, indirect and laser-equipped weapons and weapon systems.
  - d. Establishes safety data for mortar firing points.
  - e. Reviews risk assessments to determine minimum OIC and RSO requirements and duties. Unit risk assessments are to be signed by the unit's commander for moderate level risks or appropriate risk approving authority.
  - f. Develops plans for range modernization, location, and establishment of:
    - (1) Firing points.
    - (2) Firing or battle positions.
    - (3) Firing boxes.
  - g. Suitable positions for laser operations by:
    - (1) Identification of suitable terrain.
    - (2) Initial site survey and layout.
    - (3) Establishing range safety limitations.
  - h. Validates firing and target locations during the initial planning of major live fire events including the supervision of the unit's survey parties.
  - i. Stakes the limits of areas to be cleared during unexploded ordnance (UXO) operations and supports the Explosive Ordnance Detachment (EOD) during UXO operations.
    - (1) Coordinates with EOD for assistance in hard target insertion operations.
    - (2) Conducts crater analysis on reported round out incidents.
    - (3) Investigates range accidents and incidents from a range safety perspective.

### 3-2. Personnel Requirements.

- a. Personnel requirements are IAW Department of the Army Pamphlet (DA PAM) 385-63, and are illustrated in Figure 1-1. These requirements for unit range personnel must be adhered to.
- b. No one may act as Officer-In-Charge (OIC) or Range Safety Officer (RSO) until certified in writing by the Battalion or Squadron Commander or the first O-5 or higher Commander as qualified to perform duties as OIC or RSO and the specific weapon systems to be fired.

c. Requirements to serve as OIC or RSO is listed in Figure 1-1, page 47, OIC/RSO Matrix.

d. Prior to assuming duties as OIC or RSO personnel must receive the Range Orientation/Safety Briefing from Range Operations. This briefing must be reviewed annually.

e. **OIC.**

(1) Qualifications:

(a) Commissioned officer, warrant officer, non-commissioned officer (NCO) (Army), staff noncommissioned officer (SNCO) (Marine Corps) or civilian. Grade requirements will be IAW table 1-1. Personnel assigned as OIC will have no other duties during that period of training.

(b) OICs will be certified in the weapon systems for which they are responsible. For weapon systems equipped or dependent on lasers, the OIC will be knowledgeable of laser hazards and proper employment. The OIC holds responsibility and accountability for the conduct of the activity and the adherence to governing regulations and guidance. The OIC must be able to fully influence the conduct of the event. For aviation weapons systems the OIC must be weapons systems knowledgeable, except for aviation weapons system training where instructor pilots shall assume RSO duties. Assistant RSOs may be appointed, as required.

(2) Duties:

(a) Ensure the overall safe conduct of training and proper use of the Installation training Complex and must be present on the range at all times.

(b) Ensure the RSO is physically present at the training site.

(c) Determines when it is safe to fire IAW applicable regulations, manuals and Installation range requirements.

(d) Ensures receipt of final clearance to fire from Range Control.

(e) Ensure proper supervision of personnel performing misfire, hang-fire and cook-off procedures.

(f) Ensures required communications are established and maintained.

(g) Ensure safe laser operations.

(h) Ensures adequate medical support is available.

(i) Ensures ammunition and explosives are handled, transported, stored and accounted for within the training complex from the time of receipt to the time of expenditure or turn-in.

(j) Ensures a written log is maintained of pertinent safety and control data concerning the operation of firing ranges, weapons training facilities and maneuver areas, authorized operating times, impact area entries and exits and cease fire authorizations.

(k) Ensures plans for firing exercises and maneuvers are coordinated with Range Control.

(l) Ensures control of target areas to prohibit entry by unauthorized personnel. Some ranges have minimum barrier and guard requirements specified in the range packets.

(m) Ensures all ammunition malfunctions and accidents are reported to Range Control IAW Army Regulation (AR) 75-1 and AR 385-40 or Marine Corp Order (MCO) P5102.1 and MCO 8025.1.

(n) Ensures coordination and approval has been gained from Range Control for all Civilian personnel that will be entering the training site.

(o) Briefs the RSO on the duties to be performed in support of the training event. Clearly establishes the requirement for the RSO to brief the OIC on the safety of the facility and the unit and the readiness to commence live fire operations prior to start of firing.

(p) Implements risk management in all phases of the training event.

(q) Provide utilization data including ammunition expenditure by DODIC, number of personnel trained and number of vehicles on site (wheeled and/or tracked).

**e. Range Safety Officer.**

(1) Qualifications.

(a) Commissioned officer, warrant officer, non-commissioned officer (NCO) (Army), staff noncommissioned officer (SNCO) (Marine Corps) or Civilian. Grade requirements will be IAW table 1-1. Personnel assigned as OIC will have no other duties during that period of training.

(b) OICs will be certified in the weapon systems for which they are responsible. For weapon systems equipped or dependent on lasers, the OIC will be knowledgeable of laser hazards and proper employment. The OIC holds responsibility and accountability for the conduct of the activity and the adherence to governing regulations and guidance. The OIC must be able to fully influence the conduct of the event. For aviation weapons systems the OIC must be weapons systems knowledgeable, except for aviation weapons system training where instructor pilots shall assume RSO duties. Assistant RSOs may be appointed, as required.

(2) Duties:

(a) Ensure the overall safe conduct of training and proper use of the Installation training complex.

(b) Ensure the RSO is physically present at the training site.

(c) Determines when it is safe to fire IAW applicable regulations, manuals and Installation range requirements.

(d) Ensures receipt of final clearance to fire from Range Control.

(e) Ensure proper supervision of personnel performing misfire, hang fire and cook off procedures.

(f) Ensures required communications are established and maintained.

(g) Ensure safe laser operations.

(h) Ensures adequate medical support is available.

(i) Ensures ammunition and explosives are handled, transported, stored and accounted for within the training complex from the time of receipt to the time of expenditure or turn-in.

(j) Ensures a written log is maintained of pertinent safety and control data concerning the operation of firing ranges, weapons training facilities and maneuver areas, authorized operating times, impact area entries and exits and cease fire authorizations.

(k) Ensures plans for firing exercises and maneuvers are coordinated with Range Control.

(l) Ensures control of target areas to prohibit entry by unauthorized personnel. Some ranges have minimum barrier and guard requirements specified in the range packets.

(m) Ensures all ammunition malfunctions and accidents are reported to Range Control IAW Army Regulation (AR) 75-1 and AR 385-40 or Marine Corp Order (MCO) P5102.1 and MCO 8025.1.

(n) Ensures coordination and approval has been gained from Range Control for all civilian personnel that will be entering the training site.

(o) Briefs the RSO on the duties to be performed in support of the training event. Clearly establishes the requirement for the RSO to brief the OIC on the safety of the facility and the unit and the readiness to commence live fire operations prior to start of firing.

(p) Implements risk management in all phases of the training event.

(q) Provide utilization data including ammunition expenditure by Department of Defense Identification (DODIC), number of personnel trained and number of vehicles on site (wheeled and/or tracked).

### **3-3. Range and Training Area Communications.**

a. The primary means of communication between the training unit and Range Operations is handheld radios: All units utilizing West Point training resources will possess this capability.

b. The second means of communication is a land line or cellular telephone after prior coordination with Range Operations Fire Desk, (845) 938-3930.

c. Units must establish communication with Range Operations immediately upon occupation of a training facility, area or range.

d. Units in training are required to maintain constant communication with Range Operations. Units conducting training are required to complete hourly communication checks with Range Operations. Loss of communication between the firing unit and Range Operations requires the firing unit to come to an immediate CEASE FIRE until communications are restored. The unit will then obtain permission from Range Operations to resume firing. Failure to constantly monitor Range Operations constitutes a violation of this regulation and may lead to suspension of training exercises.

e. Higher Headquarters of non-firing units may maintain communications for subordinate units provided they:

(1) Coordinate in writing prior to use.

(2) Provide OIC and training area occupation information to Range Operations.

(3) Maintain constant communications with subordinate units on internal frequencies.

(4) Aviation units and Commercial Aviation activities will contact the Range Office and should obtain an update briefing from 2<sup>nd</sup> AVN. Aircraft shall monitor the CTAF (VHF 126.2) and call Range Operations to obtain access into the SUA (R-5206) and when departing the airspace. While in the airspace, pilots will maintain radio contact with Range Operations.

### **3-4. Range Certification Safety Briefings.**

- a. Range Safety briefings are required for all Commanders, OIC's and RSO's involved in live fire and maneuver training on West Point. This briefing must be reviewed annually.
- b. Range Operations Office provides procedures and policy briefings for OIC's and RSO's.
- c. No one may act in the capacity of a range OIC or RSO until briefed by Range Operations.
- d. Successfully complete Range Safety training and has a signed memorandum authorizing duties as an OIC/RSO.
- e. Safety certification is conducted twice monthly (1<sup>st</sup> and 3<sup>rd</sup> Wednesdays).

### **3-5. Weather Hazards.**

- a. West Point Range Operations monitors weather conditions and announces severe and hourly weather updates over the live fire frequency net.
- b. During the summer months, heat injuries are a serious threat to the health of Soldiers and Civilians on West Point. Special notices will be broadcast by Range Operations as necessary.
- c. Lightning Events. Lightning presents real safety hazards of electrocution and initiation of explosives. IAW DA Pam 385-63 all demolition operations and handling of electro sensitive items such as rockets and missiles must be discontinued at the approach of an electric storm. Rockets and missiles must be returned to shipping configuration if time is available.
  - (1) Recent information shows successive lightning strikes (distances from Strike 1 to Strike 2 to Strike 3) can be six and eight miles apart. Taking immediate defensive actions is recommended when lightning is indicated within six and eight miles. The next strike could be close enough to be an immediate and severe threat. By referencing the time in seconds from seeing the lightning (the FLASH, or "F" ) to hearing the accompanying thunder (the BANG, or "B"), we can range lightning's distance. An "F" to "B" of five seconds equals lightning distance of one mile away. An "F" to "B" of twenty = four miles; etc.
  - (2) Take defensive actions:
    - (a) If outdoors find a low spot away from trees, fences and poles. Unnecessary metal equipment such as rifles and radios must be grounded. Make sure the place you choose isn't subject to flooding. If you're in the woods take shelter under the shorter trees. Inside metal roofed vehicles and buildings are good locations to be.
    - (b) With the exception of emergencies, suspend use of radios, telephones and switchboards during thunderstorms. Radios can be monitored but do not touch any radio components. Additionally, all automated targets will be shut down for the duration of lightening conditions.
    - (c) If you feel your skin tingle or your hair standing on end, squat low to the ground on the balls of your feet. Place your hands on your knees with your head between them. Make yourself the smallest target possible and minimize your contact with the ground.

(d) Remind personnel that a person struck by lightning can usually be revived by quick application of CPR.

### 3.6. Medical Requirements.

a. It is the responsibility of the OIC to ensure adequate medical support with appropriate medical supplies is on site for all operations on the ranges and training areas.

b. Medical support for ranges varies based on type of training. The two types of medical support are:

(1) Qualified medics with aid bag, litter, radio communication and evacuation vehicles. The unit will provide these personnel and resources. An Emergency Medical Technician (EMT) is equal to a MOS qualified Army medic. **See Table 3-1.**

(2) A qualified Soldier First Responder (SFR) MOS immaterial) with aid-bag, radio communication, litter and evacuation vehicle. These personnel and resources will be provided by the unit. A vehicle used for evacuation must have the capability of transporting litter and ambulatory patients and must be dedicated for evacuation use only.

c. Medical qualifications. Units will furnish medical requirements (MOS qualified medic or SFR) for the range and/or facilities utilized IAW this regulation.

d. Ranges requiring medical support will have on site a dedicated casualty evacuation vehicle capable of transporting a litter patient. The following ranges and training activities require medical support to be on-site.

(1) All ranges and training areas where live fire is to be conducted: MOS qualified medical personnel and equipment will support all ranges involving crew served weapons (M240B, MK19, demolition and indirect fire). Soldier first responders may support small-arms ranges (M4/16, M9, skeet & trap, pistol ranges).

(2) All demolition training (including grenade, mortars, field artillery, MK19): MOS qualified medical personnel and equipment only.

(3) Rappelling: MOS qualified medical personnel and equipment only.

(4) Water Confidence Training: Qualified lifeguard with water safety certification and MOS qualified medic.

(5) Marine Confidence Course: MOS qualified medical personnel and equipment only.

(6) Anzio Obstacle Course: Qualified Soldier First Responder with equipment.

(7) Lundy's Lane Leader's Reaction Course: Qualified Soldier First Responder with equipment.

(8) Maddock Drop Zone (during air operations): MOS qualified medical personnel and equipment only.

(9) Civilian gun clubs activity ranges: EMT or equivalent. At a minimum, clubs should have an emergency first aid, evacuation plan and a method to notify Keller Army Community Hospital (KACH) in the event of an emergency.

e. Organic (Unit) Medical Requirements. Units providing their own medical support must meet the requirements listed in paragraphs a through c above.

f. Execution. Medical support personnel at the range site will provide treatment for minor injuries and stabilization and evacuation for life-threatening injury or illness.

(1) Medical coverage will be provided on an area basis when possible. One medic can only support one range (no exceptions).

(2) Injuries and/or illness requiring immediate emergency support will be reported



to the KACH ER and location to the range site for patient evacuation.

(3) When medical personnel assigned to a range or training site must depart for any reason, the range will "CEASE FIRE" or cease training until medical personnel return to the site.

(4) Communication. All medical personnel will have radio communication, Class C telephone lines (if available) and FM communication capability. All frequencies and numbers will be displayed at the site:

(a) Range Operations frequency is on the Live Fire net or Air Radion at VHF 126.2/FM 46.70.

(b) West Point Fire & Emergency Services Division can be reached at (845) 938-3333.

(c) KACH ER frequency is 150.7 VHF.

(d) KACH ER telephone number (845) 938-4004 or (845) 938-5169.

(5) Serious Incident Report (SIR). Immediate attention should be given to the patient; OIC or RSO will contact Range Operations when possible. This call should occur immediately after the accident or injury and will include the five W's (who, what, when, where, and why).

g. All injuries and or accidents must be immediately reported to the Range Operations fire desk. Failure to report may result in the de-certification of the Range OIC and or RSO.

### **3-7. MEDEVAC Procedures.**

a. MEDEVAC is for the emergency evacuation of injured personnel by helicopter or ground ambulance. All MEDEVAC requests shall be initiated through Range Operations.

b. Civilian Air Ambulance flights shall be the primary means of emergency evacuation of severely injured personnel. Only the emergency first responder on site, DES dispatcher or KACH medical personnel are authorized to request or terminate a MEDEVAC mission.

c. Units are required to provide medical support and dedicated transport vehicle on all ranges prior to requesting a hot status. All transport vehicles will have operational communications and a legible strip map to the KACH/Aid Station location.

d. To obtain an Air Ambulance Flight (via Air Methods) contact Range Operations via the Live fire net or (845) 938-3930. After hours contact (845) 938-3333 (Military Police Dispatch) and provide the following:

(1) Six-digit coordinates and prominent terrain features nearby.

(2) Unit Identification/call sign.

(3) Number of patients and evacuation category.

(a) **URGENT** - Requires immediate evacuation to prevent loss of life.

(b) **PRIORITY** - Serious injury, but not life threatening.

(c) **ROUTINE** - Evacuation is required, but the condition is not expected to deteriorate for several hours.

(4) Special equipment required: None, hoist, extraction equipment or litter bucket.

(5) Number of patients. (Litter or Ambulatory)

(6) Number and types of wounds, injuries and illnesses.

(7) Method of marking pick-up site: RED for emergencies, panels, pyrotechnics, non-white smoke, fabric strips, tree branches, pieces of wood or stones placed together, signal lamp or flashlight, vehicle lights and/or open flame.

- (8) Patient nationality and status. United States (U.S.) military, U.S. citizen, non-U.S. military or an U.S. citizen.
- (9) Terrain description of pick-up site.
- e. At no time will the names or social security numbers of injured personnel be transmitted over FM radio.
- f. Unit personnel will follow Range Control instructions and remain in radio contact.
- g. When operating in deep snow, inform the pilot of the locations of drifts and depth of snow at the HLZ.

**3-8. Training Accidents.**

- a. All training accidents/injuries will be reported to Range Control upon occurrence.
- b. The following training accidents require the OIC/Commander of the site to freeze the site as listed in paragraph 3-13.
  - (1) Any fatality, regardless of cause.
  - (2) Any accident resulting in injury from use of weapons, ammunition, vehicles, machinery and aircraft.
  - (3) Any instance where weapons are discharged out of the safety zone for that range.
  - (4) Any premature detonation of explosives regardless if any injuries occurred as a result of the premature detonation.
  - (5) Any incident resulting in two or more casualties from one cause.
  - (6) Any incident resulting in accidents to Civilians.
  - (7) Any incident involving breakage of items containing radioactive material.
- c. In the event of any training accident listed in paragraph 1-15b, the following actions will take place:
  - (1) The senior commander on the ground will freeze the accident site as explained in paragraph four below and notify Range Operations with all known details immediately.
  - (2) The senior commander on the ground will take charge of the accident site and oversee the evacuation of injured personnel.
    - (a) Upon arrival of the West Point Fire Emergency Services (WPFES), the accident site will be turned over to the WPFES Incident Commander.
    - (b) Once the site is determined to be safe, the WPFES Incident Commander will release the scene to investigators (MP/CID/Command Safety Office).
  - (3) Range Operations will issue guidance to the unit involved and notify the appropriate post agencies.
  - (4) The on-site commander will freeze the accident site in the manner shown below unless given different instructions from Range Control. Freezing the accident site requires:
    - (a) Only those actions necessary for rescue or recovery of victims and the initial on site investigation by WPFES/MP/CID/Command Safety Office will be allowed. Fatalities will not be moved from the accident location until released by an appropriate authority (MP/CID/Command Safety Office Staff/County Coroner investigators). The County Coroner is the final authority to move the fatality. Weapons or weapon systems will not be moved, adjusted or cleared except for the system being placed in a safe status.

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(b) Access to the accident site will be restricted to those giving aid to victims, those fighting fires or providing first response to prevent intensification of the accident scene.

(c) All non-injured personnel involved in, or witnessing the accident will remain on site until interviewed by investigators and released by the Command Safety Office Staff. These include Commanders, key leaders, RTOs and unit range safety officers.

(d) All other unit personnel not involved in or witnessing the accident may depart the site upon direction by the Command Safety Office Staff. When the accident scene is released, training may continue at the direction of Range Operations.

(e) Investigators will notify the unit and Range Operations when the on-site accident investigation is completed and the unit is free to close the range/training area or is allowed to continue operations on that site.

(f) Off-post training exercises. These procedures should be implemented as much as is possible. Contact Range Operations of the Installation and the appropriate G1/S1 for further guidance.

d. An accident report will be prepared and submitted for each accident resulting in one or more lost workdays or property damage of \$2,000 dollars or more. Accidents must be submitted to the Command Safety Office within seven days of the incident.. For off post exercises, the Exercise Safety Director (ESD) will develop the accident report from the information provided by the unit to the G1 or S1, as appropriate.

e. OIC will prepare and submit to Range Operations in writing a detailed report of the incident and circumstances contributing to the incident within 24 hours of the occurrence without exception.

### 3-9. Artillery and Mortar Firing.

a. Artillery unit Commanders participating in firing of artillery for Cadet Summer Training must read and comply with the provisions of:

- (1) AR 385-63 and DA PAM 385-63 (Range Safety).
- (2) USMA Reg. 350-11.
- (3) Artillery live fire requires observation (visual or electronic).
- (4) Gate and road closures are required during artillery firing.
- (5) Mine Torne Road must be guarded and closed on either end during firing.
- (6) Burning of remaining powder residue must take place in designated

metal container under the observation of the West Point Fire and Emergency Services Division.

b. High explosive ammunition must be fired into the permanent duded impact area, which is:

- (1) Specifically defined.
- (2) Self-contained.
- (3) Located within the boundary of the live fire training area.

*\*Note: Do not fire high explosive ammunition at any automated target device. Failure to comply may result in disciplinary action or pecuniary liability for damage to target*

*mechanisms.*

c. Overhead Fire:

(1) All requests for conducting overhead fire will be approved by the Range Officer.

(2) Overhead fire, if approved, will be with small arms ammunition only IAW Chapter 6, paragraph 6-2, DA PAM 385-63.

d. Mortar Firing Safety (60mm, 81mm & 120mm):

(1) Do not fire mortars over the heads of troops.

(2) IAW Chapter 10, paragraph 10-1, AR/DA PAM 385-63, lists additional requirements.

(3) Mortar live fire must be observed visually.

(4) Personnel participating in or acting as observers in the immediate vicinity of firing positions must wear protective head gear.

(5) Increments removed from rounds before firing will be placed in a covered metal container positioned at least 25 meters or greater from the firing guns.

e. See Appendix C for Mortar and Appendix D for Artillery procedures and safety considerations.

### **3-10. M203/MK19 Grenade Launchers.**

a. Units are required to police the range at the end of training of all expended 40 MM TP rounds (Dedicated Impact Area excluded).

b. The following procedures must be followed for the MK19:

(1) DUD class from EOD or view the MK19 Clearance video at <https://safety.army.mil/Default.aspx>.

(2) A list of personnel viewing the video will be provided to Range Operations safety.

(3) All personnel must wear body armor, Kevlar or Advance Combat Helmet, hearing and eye protection and gloves when policing the range.

(4) Unit will only pick up the expended rounds. All rounds found that have not functioned will be marked for EOD.

(5) OIC/RSO will conduct an accountability inspection all ammunition before any unit is allowed to leave the range.

c. Personal Protective-Equipment. Soldiers must wear body armor, protective headgear, eye and ear protection devices when conducting or participating in fire and maneuver training. This also includes:

(1) In temporary or previously duded UXO areas.

(2) On MK19 40mm grenade machine gun ranges.

(3) When unit Commander's/Leaders find it necessary to take precautionary measures in order to reduce hazards.

(4) On all firing ranges.

d. High explosive ammunition must be fired into the permanent duded area, which is:

(1) Specifically defined.

(2) Self-contained.

(3) Located within the boundary of the live fire training area.

***\*Note: Do not fire high explosive ammunition at any automated target device. Failure to comply may result in disciplinary action or pecuniary liability for damage to target mechanisms.***

**3-11. Demolition Safety.**

- a. Demolition training operations are scheduled through the Range Scheduling Office and require approval by the Range Safety Office.
- b. Units conducting demolition training will provide Range Operations with a DA Form 5692-R, Certificate of Consumption, with the amount of explosives consumed and a copy of the DA Form 581 (ammunition issue) when clearing the range facility.
- c. Discontinue demolition training during or at the approach of an electrical storm within five miles.
- d. All demolition training requires a Sapper or approved demolition certified OIC and RSO.

**3-12. Range Hazards/UXO/DUD.**

- a. Military and Civilian personnel at West Point must understand the life threatening hazards associated with touching dud ammunition. Personnel will not touch suspected dud ammunition and will immediately report its location to Range Operations at (845) 938-3930 or the Military Police at (845) 938-3333. All duds and unexploded ordnance (UXO) are to be considered extremely hazardous and will not be disturbed.
- b. Unexploded Ordnance (UXO).
  - (1) Range OICs must brief and frequently remind personnel of the danger relative to UXOs within the live fire area.
  - (2) UXOs will not be:
    - (a) Picked up.
    - (b) Handled.
    - (c) Disturbed in any way.
  - (3) Stake and report dud locations using eight digit coordinates to Range Operations by telephone (845) 938-3930 or live fire radio net. The location of any dud found along the boundary of or outside the impact area will be marked and the location immediately reported to Range Operations by grid coordinates. They will be clearly marked by stakes no closer than three meters from the dud and surrounding it in a triangular pattern. The stakes will be connected by clearly distinguishable tape or other material. A guide will remain in the area until EOD or Range Operations personnel arrive to evaluate and dispose of the item.
- c. The Senior EOD technician on site will be in charge of the incident site regardless of rank.
- d. When EOD arrives on scene they will be met Range Operations personnel.
- e. Prior to the arrival of EOD, OIC will have 100% accountability of all personnel.
- f. During night operations, for safety reasons EOD will need to relax light and noise discipline for the minimum period required to perform EOD procedures.
- g. All EOD disposal operations are required to have a completed and signed Risk Management worksheet.

**3-13. Mis-fires and Hang-fires.**

- a. The OIC is responsible for supervising the handling and disposition of misfires and hang fires. Misfires and hang fires will be treated IAW the provisions of the appropriate technical and field manuals for the weapon and ammunition involved.

The nature of each malfunction must be understood to prevent injury to personnel and preclude property damage. All misfires and defective ammunition (not duds) will be repackaged in original containers, segregated from serviceable items, clearly marked defective ammunition or misfires and returned to the ammunition supply point.

b. If IAW the appropriate manual a misfire is considered immediately hazardous to personnel, training will be halted and personnel will be evacuated from this hazard area. Range Operations will be immediately notified at (845) 938-3930 or via live fire net with the misfire information.

c. When dud and misfire rates equal or exceed the rates given in appendix A of AR 75-1 or enclosure two of MCO 8025.1 the affected lot(s) will be reported as a malfunction.

### **3-14. Rounds Landing Outside of the Impact Area.**

a. Any projectile that bursts or lands outside specified impact areas limits requires immediate action and investigation to determine and correct the cause.

b. Anyone detecting rounds landing outside the firing unit's authorized limits or outside the established impact area will:

- (1) Attempt to immediately notify the responsible unit, if known, to suspend firing.
- (2) Immediately report the incident to Range Operations. The report will include:
  - (a) Date and time erratic round(s) were observed.
  - (b) Injury to personnel.
  - (c) Equipment damaged.
  - (d) Number and location of round(s).
  - (e) Height, if airburst.
  - (f) Location of ground burst crater, if available.
  - (g) Knowledge of source of erratic round(s).
  - (h) Location of observer.
  - (i) Name and unit of observer.

c. Range Operations will immediately do the following when a firing incident/accident is reported:

- (1) Order a range wide check fire.
- (2) Analyze available facts and data to determine which unit caused the firing incident/accident.
- (3) Notify the next higher headquarters available in the unit's chain-of-command.
- (4) Require a technical service investigation if ammunition or a weapon is involved.
- (5) Allow other units to resume firing unless an ammunition malfunction occurred and those other units have quantities of the same lot.

d. The commander/OIC shall immediately:

- (1) Suspend firing.
- (2) Immediately order all firing personnel to check fire/freeze and fall to the rear of the weapons or weapon system. The settings on aiming circles will not be altered. Ammunition or tools will not be disturbed until authorized by Range Operations or the Investigating Officer. Units on small arms ranges will direct their personnel to leave

their weapons in place pointing down range. The personnel on the firing line will then return to the ready line and stand by for instructions.

(3) Determine the facts surrounding the incident and report them to both Range Operations and the Investigating Officer.

e. An Investigating Officer will be appointed by the immediate higher headquarters commander of the unit suspected of, or known to have fired out of the impact area. The Investigating Officer must be on the site within one hour of the incident and will not be from the same company/battery. This appointment and the conduct of the investigation will be IAW AR 15-6. A full written report of the investigation will be submitted to the Range Officer, Training Division DPTMS, with a copy furnished to the Installation Command Safety Director.

f. Upon completion of an initial investigation, the Investigating Officer will inform Range Operations of which unit(s) he has cleared. Range Operations will then notify the unit(s) concerned that their check fire has been lifted. Only Range Operations can lift a check fire.

### **3-15. Cease Fire.**

a. The command CEASE FIRE is immediately given by any person observing an unsafe condition that makes firing dangerous. This is followed by immediate notification of the commander or OIC, who will take appropriate action to correct the situation.

b. The command CEASE-FIRE is given instantly, either orally or through radio communication, by any person who observes any unsafe condition. The unit will bring the range to an immediate cease fire and contact Range Operations via the Live Fire net or landline (845) 938-3930 and notify Range Operations that a cease fire is in place. Conditions for calling a cease fire include:

- (1) If unit loses communications with Range Operations.
- (2) If aircraft or wildlife enter the live fire area.
- (3) In the event of a range fire.
- (4) Rounds out of sector.
- (5) Accidental discharge of weapon.
- (6) Ammunition malfunctions.
- (7) Any unsafe condition which interferes with the safe conduct of training.

***\*Note: Notify the OIC immediately for further action.***

### **3-16. Vehicle Traffic.**

a. Range/Training Area speed limits are as follows:

- (1) Improved Roads - 20 mph.
- (2) All other Surfaces - 10 mph
- (3) Ranges, Specialty Courses or when passing Troops - 10 mph.

b. Tactical vehicles traveling on Route 293, West Point, NY, are authorized to drive on the main portion of the road only. Sufficient convoy interval will be maintained to permit civilian vehicles to safely pass. New York State law strictly prohibits driving

military vehicles on the shoulder of the road.

c. Vehicles transporting munitions while on post will have B & C type fire extinguishers. Provisions of TM 9-1300-206 and USMA Regulation 75-1 apply to movement of munitions.

d. During Cadet Summer Training the S3, CST, in conjunction with Tange Operation will brief the Task Force S3, S4, Logistic Support Platoon Leader and the Commander of transportation organization concerning the approved training and traffic routes for military vehicles.

e. Maximum speed when transporting munitions is IAW Ammunition Supply Point (ASP) SOP and appropriate TM's and FM's.

f. Vehicles transporting Class A and B munitions will display the appropriate Department of Transportation (DOT) Symbols IAW DA PAM 385-64. For on-post movement, fire symbols are to be used IAW West Point ASP SOP to include the positioning of DOT symbols.

g. Vehicles will not be left unattended while loaded with munitions, nor will munitions be loaded or stacked immediately to the rear of the exhaust. Security requirements for in transit weapons and/or munitions, as specified in AR 190-11, will be met.

h. Tracked vehicles are not authorized on the West Point Range and Training Complex.

i. Privately owned vehicles (POV) without a valid range pass are prohibited on ranges and training areas.

k. POV passes do not authorize off-road driving or driving on grassy areas. All POV's must remain on road surfaces in and around ranges and maneuver training areas.

### **3-17. Blackout Drive and NVG Operations.**

a. In order to prevent vehicular traffic from interfering with or creating a potential safety hazard to training exercises during the hours of darkness will follow the policies that have been established:

b. No Light/Reduced Light areas have been designated on all ranges, firing points, observation posts and training areas on the West Point Military Reservation.

c. Within the designated areas only blackout will be used by all vehicles. Vehicles of commercial design that are not equipped with blackout drive will use their parking lights, pull to the right and give way. Under emergency conditions emergency and rescue vehicles are exempt from blackout restrictions. Commanders must be aware that special use permits are periodically issued for night time white light use.

d. Commanders shall ensure that all vehicle operators are trained to drive in blackout and NVG operations. Enforcement of drivers NVG training is the responsibility of the unit's chain-of command.

e. Commanders should ensure that the distance between vehicles when conducting road marches or convoys in blackout drive is 15 to 20 meters at a minimum. Following distances should be adjusted as conditions change.

f. Vehicle operations around dismounted troops or bivouac sites "require ground guides."



*g.* Blackout drive, blackout marker and blackout marches will not be conducted in the cantonment area or on any other public road or highway.

*h.* Enforcement of Light Discipline on the No Light/Reduced Light Areas is the responsibility of the chain-of-command.

*i.* Coordination and assistance with training areas supporting drivers training for NVG and blackout operations can be obtained from Range Operations.

*j.* Deviation from the above stated requirements requires prior approval from Range Operations.

**3-18. Movement of Tactical Vehicles to and from West Point Ranges and Training Areas.**

*a.* Convoy is any group of six or more vehicles organized for the purpose of control and orderly movement with or without escort protection. Any group of six or more vehicles, temporarily organized to operate as a column with or without escort, proceeding together under a single commander is considered a convoy.

*b.* Convoy operations internal to West Point range roads or tank trails will be conducted IAW FM 55-30, Army Motor Transport Units and Operations and FM 55-312, Military Convoy Operations and appropriate TAC SOP.

*c.* Military vehicles of units in training will use the internal West Point road network, range roads or tank trails.

*d.* Exceptions to use of off post roads will be approved only by the U.S. Army Garrison Command Group, following staffing through CSO and the Provost Marshal. Installation support agencies. Range Operations and emergency vehicles are exempt from this requirement.

*e.* The following minimum procedures as appropriate to the situation shall be employed by units when crossing a paved road with military vehicles and convoy operations:

(1) Commanders will ensure that road guards and ground guides are trained on their duties and responsibilities.

(2) Road guards and flashing lights shall be posted 100 meters on each side of the crossing to control military traffic.

(3) Road guards are provided and required to wear reflective vests and use baton flashlights (white or amber).

(4) All crossings shall be "administrative" service lights will be on during periods of limited visibility.

(5) One ground guide, located at the crossing site will direct each vehicle across by hand signals, not by physically walking in front of each vehicle.

(6) Road Guards are not authorized to control civilian traffic. The Provost Marshal should be contacted for assistance in large unit movement requiring Civilian traffic control.

*f.* No aggressor play is authorized within one kilometer of the crossing of a Civilian road.

**3-19. Foot Road Marches.** Columns must march as far as possible off the road. Each column will have road guards posted at the front and rear at an adequate distance to ensure the safety of troops. At times of limited visibility these road guards will wear reflective devices visible to traffic and will have red lens flashlights or a similar device to signal approaching vehicles. Units platoon and larger must submit an overlay of the

foot march route not less than seven days prior to Range Scheduling and DES. The overlay will indicate start point, checkpoints, release point and a timeline.

**3-20. Range Guards and Barriers.**

a. Range guards and/or barriers must be used to prevent unauthorized or accidental entry into ranges/training areas. All range guards will be instructed in their duties and will be in immediate contact (radio, wire, or voice) with the OIC at all times. Their primary duty is to prevent inadvertent or unauthorized entrance into the range area. They will advise the OIC about all personnel and vehicles desiring entrance. The OIC will provide range guards clear instructions on their duties and responsibilities. Written instructions are recommended. Range Operations, Military Police, EOD, Command Safety Office and emergency vehicles or personnel will not be denied entrance by the OIC.

b. Range Guards:

(1) Use range barrier guards to prevent unauthorized or accidental entry into the live fire training area.

(2) Instruct range and barrier guards in their duties; maintain radio contact with Range Operations or the special event OIC accordingly.

(3) Cell phones are not a means of effective communications and will not be used for primary means of communication.

(4) POV's will not be used to assist in barrier control or gate guards.

**3-21. Warning Signals and Signs on Live Fire Ranges.**

a. Warning Signals:

(1) Units occupying standard live fire ranges will prominently display a scarlet red danger flag continuously during occupation. During hours of darkness the unit will illuminate right and left range limit markers. Firing does not take place unless these conditions are met. These items will be provided by Range Operations.

(2) Individual vehicles, fighting vehicles and armored personnel carriers will display flags to show the vehicle's weapon status in accordance with the appropriate field manual. Installation Commanders may allow the Installation RCO to approve vehicles on a battle run not to display status flags, based on a Range Operations approved risk management plan. All firing vehicles will display colored flags during daylight hours and periods of good visibility. During night time hours and period of reduced visibility, colored lights will be shown. This requirement applies to conducting static firing, firing on the move and while exiting the range. The color and meaning for the colored flags and lights are as follows:

(a) **RED:** Vehicle engaged in firing; weapons must be pointed at the target area.

(b) **GREEN:** All vehicle weapons are clear and elevated. Any live ammunition in the vehicle is properly stowed.

(c) **RED and GREEN:** Vehicle is preparing to fire or the crew is performing a non-firing exercise. Weapons are clear.

(d) **RED and YELLOW:** Vehicle has malfunction or misfire. Weapons are not clear but are pointed at the target.

(e) **GREEN and YELLOW:** Vehicle has malfunction. All weapons are clear.

b. Warning signs: Signs warning of the danger of unauthorized entry into the live fire training area are posted approximately every 200 meters along the perimeter of the impact area. Units are responsible to ensure subordinates do not enter off limits areas.

**3-22. Access to Impact Areas and Limited Access Maneuver Area.**

a. Under no circumstances may any personnel enter the main impact area for any reason without the written approval of the Range Officer.

b. The following areas are off limits except to specifically authorized personnel.

(1) All archaeological sites encountered on West Point ranges and training areas. These areas are bounded by pink tape, orange stakes and "OFF LIMIT" signs.

(2) Those areas are specified in the current Training Bulletin.

(3) Construction sites.

c. Endangered Species Survey Areas (ESSA).

(1) West Point complies with local, state and national environmental laws and statutes concerning endangered species protection.

(2) The West Point policy on endangered species is detailed in West Point Regulation 200-1 and the current Biological Opinion.

(3) West Point conducts endangered species surveys annually. Surveys will work around military training unless approved by the Chief of Staff.

d. Training in Endangered Species Habitat.

(1) West Point complies with numerous local, state and national environmental laws and statutes concerning endangered species habitat protection.

(2) Endangered Species Habitat.

(3) All endangered species habitats are protected at West Point.

(4) Current West Point training maps are required for unit planning and maneuver training exercises.

(5) Maps only show core-endangered species habitats and place limitations on units who train in those areas.

e. Endangered Species within West Point training reservation are the Short Nose Sturgeon, Timber Rattle Snake, Bald Eagle and Golden Eagle.

f. The Eastern Timber Rattlesnake is the only endangered species likely to be encountered by training personnel. Soldiers may encounter this snake outside of the restricted habitat area, but the timber rattle snake retains their protected status. Handling these snakes without proper training, equipment and permits, is hazardous, and illegal. Personnel are directed to leave rattlesnakes where they found them. If a snake's presence is detrimental to training, post someone to observe the animal so that it can easily be located and contact Range Operations and/or the Natural Resources Branch for removal.

**3-23. Areas Restricted from Bivouac and Similar Activities.** Aviation Clear Zones and Accident Potential Zones and explosives safety Inhabited Building Distance (IBD)

areas are found adjacent to the Post ASP and by some ammunition breakdown points in the downrange training area. Bivouac, BSA's, TOC's or any similar activity that requires the congregation of personnel are prohibited in these areas. Any type of maneuver on foot or by vehicle is permitted.

**3-24. Control of Spectators and Military Family Members on Firing Ranges.**

a. Civilian organizations and Military Family Members (MFM) can be authorized to observe demonstrations upon or use of the West Point Installation training facilities. MFM events are considered and approved by the Range Operations Officer; events by all other organizations are approved by the Garrison Commander. Compliance with the following is mandatory.

b. Civilian organization must have a recognizable status. Examples of a recognized organization are schools; county, municipal, state or federal agencies; organized clubs (including rod and gun clubs); or civic associations.

c. The organization or family members will comply with this regulation, other Installation regulations, applicable SOPs and the requirements and procedures established by AR 385-63/MCO 3570.1B.

d. Requests will identify if minors will be involved in firearms activities. If non-DOD associated minors will be involved, the activity must be an approved course of marksmanship training, unless otherwise approved by the Installation commander.

e. The non-DOD organization will designate an OIC and RSO. Personnel designated as OICs and RSOs will have completed an appropriate weapons instructor course approved by the National Rifle Association or equivalent (for example, the U.S. Pistol Shooters Association). The GC will determine the equivalency based on input from the Range Operations Officer, Command Safety Office, Staff Judge Advocate General (SJAG) and the other staff agencies, as appropriate.

f. Requests for non MFM use will be coordinated first with the PAO. If appropriate the PAO will direct coordination with the Installation Range Operations Office, Command Safety Office and the SJAG and submit the request to the GC for approval.

g. A written agreement must be completed between the Installation and the nonmilitary organization, detailing all aspects of the planned operation on West Point, especially weapons firing. It will clearly state all rights and responsibilities of each party, liabilities and procedures, regulatory and procedural requirements. This agreement will be incorporated into the report of availability as required by AR 405-80.

h. If approved the Range Operations Officer will ensure designated OICs and RSOs receive the yearly Range Safety Orientation Briefing and all briefings or training required of military users of the same facilities.

i. Civilian personnel approved to enter the training complex to participate in or observe capabilities exercises, fire power demonstrations, training courses, competitions or other types of firing will remain in designated safe areas as determined by the Installation Range Operations officer.

*j.* Inspection team members or other official observers required to be on the firing line, firing position or firing area will position themselves in safe areas as determined by the Installation Range Operations officer. These personnel must wear appropriate safety equipment as specified by the local range regulations and the Installation Range Operations officer.

*k.* Spectators frequently come to small arms demonstrations, training courses, competitions and other types of firing. Normally they must stay behind the firing line or firing activity. There may be exceptions when experienced personnel are demonstrating weapons or where several persons in an inspection party are observing firing activities. In any case, the firing line and the area authorized for spectators will be well defined with the proper signs and markings. Spectators (as part of an inspection team or official observers), even though required to be on the firing line as an exception to the foregoing policy, must remain behind or to the side of shooters. They must also stay to the rear of the muzzle but away from the recoil and back-blast area of all weapons on the firing line. OIC and RSO or ARSO are responsible for range safety and the control of all spectators. Any spectator who compromises safety or distracts shooters or range personnel will be removed from the range.

*l.* Spectators at training events must be controlled by the OIC. They must be kept clear of hazardous areas must be briefed on safety. Spectators must be provided and use safety equipment as directed by the OIC.

### **3-25. Privately Owned Vehicles (POV).**

*a.* POVs are not authorized in Training Areas or on Live Fire Ranges. Individuals may request a pass from Range Operations to conduct recons only at ranges (non-firing) and training areas. POV passes are issued by Range Operations. POV passes may be requested with a memorandum signed by an O-5 or above.

*b.* The presence of an "unauthorized POV" on a firing range is a violation of Installation policy and necessitates that range be brought to a cease fire until the owner is found and the POV removed from the range.

*c.* A POV found on the perimeter of the live fire training area indicates that the owner may be in the live fire training area. Appropriate ranges will be immediately ordered to cease firing until the owner is found. Range Operations will be immediately notified when this condition exist.

### **3-26. Prohibited Activities.**

*a.* Prohibited activities include unauthorized entry on West Point live fire training areas; the main impact area; handling unexploded ammunition; unauthorized removal of any item from ranges, training areas and impact areas; and possessing military brass, ammunition or ammunition residue after turn-in has been ordered.

*b.* Trespassing on West Point maneuver and live fire training areas is prohibited.

*c.* No military or civilian personnel will enter the impact area for any purpose without

permission from Range Operations.

d. Use of POVs on range roads and MTAs are prohibited without an approved range pass.

e. Trespassing is punishable by criminal law and UCMJ action.

f. Unauthorized Removal of Items from Ranges:

(1) The following items are prohibited from being removed from all ranges: brass, scrap metal, ammunition residue and cultural/archeological artifacts or UXO's.

(2) Unless the unit is conducting ammunition turn-in.

**3-27. Wildlife.** Units firing on ranges will take necessary actions to prevent injury to wildlife in their assigned range area. Under no circumstances will animals be fired upon. Units will immediately report injury or death of any wildlife to Range Operations.

**3-28. Range Fires.**

a. Range Operations is responsible for ensuring that the following are notified during woodland fire emergencies:

(1) Range Operations, (845) 938-3930 or (845) 938-8559.

(2) West Point Fire and Emergency Services Dispatcher, (845) 446-4949 or (845) 938-3333.

(3) Natural Resource Office, (845) 938-2314 or (845) 938-7122.

(4) Garrison Commander, (845) 938-2022.

(5) Public Affairs Office, (845) 938-3808.

(6) Directorate of Emergency Services, (845) 938-2403.

(7) CST Headquarters, During Summer Training, (845) 938-2509 or (845) 938-4303

b. The West Point Fire and Emergency Services Division, (845) 938-3001, in communications with Range Operations will determine the extent and degree of the fire. The West Point Fire and Emergency Services Division are responsible for assessing the fire and determining the best course of action to extinguish the fire. All fires must be immediately reported to Range Operations, (845) 938-3930. After hours contact the Military Police desk, (845) 938-3333 who will immediately notify the West Point Fire and Emergency Services.

c. The West Point Fire Chief makes the decision on range fire conditions based upon recommendations from DPW Natural Resources Branch and the West Point Range Officer. Anyone observing a fire in any West Point Range or Training Area will immediately inform Range Control, giving a six digit coordinate location when possible. Commanders/OIC of units using ranges or training areas will attempt to extinguish any fires in their areas. Range Operations will be regularly advised about firefighting progress. No one will enter the main impact area for the purpose of fighting fires.

d. Units may have 4:1 tracer and incendiary munitions suspended during periods of dry weather.

e. The fire index rating will be announced hourly. All units are required to refer to the Fire Index charts and initiate the appropriate actions.

f. An immediate cease fire will be initiated when any fire is observed or reported on the live fire range or impact area. OIC's are responsible in ensuring the range remains in a cold status until Range Operations re-issues a "Hot Time."

g. Range Operations will only issue a Hot Time once the fire has been extinguished and the senior fire official has accounted for all firefighting personnel.

h. The 2<sup>nd</sup> Aviation Detachment will be notified ASAP if firefighting will require Bambi Bucket operations between sunrise and sunset.

***\*Note: During seasonal periods, the use of high risk-producing ammunition may be suspended due to the hazards to targets, personnel, and surrounding communities.***

i. Fire Index Codes.

(1) Fire danger observations are made daily to determine the existing fire danger condition. The observed condition is posted on a color-coded sign at Range Operations.

(2) Green. The fire danger is LOW. Fires do not ignite readily from sparks or small fire brands, although a more intense heat source such as flares, grenade simulators and pyrotechnics may start fires.

(3) Blue. The fire danger potential is MODERATE. Fires can start from the most natural or manmade causes. Woods fires will spread slowly to moderately fast. Fires are not likely to become serious and control is relatively easy.

(4) Yellow. The fire danger is HIGH. Fires will ignite easily from most causes and will spread rapidly. Short distance spotting is common and fires may become serious and difficult to control.

(5) Orange. The fire danger is VERY HIGH. Fires can start easily from all causes and will spread rapidly increasing in intensity. Spotting fires are a constant danger and control is difficult and dangerous to inexperienced personnel attempting to control the fire.

(6) Red. The fire danger is EXTREME. Under this condition, fires start quickly, spread furiously and burn intensely. All fires are potentially serious with a high intensity burning. These will usually develop faster and will spread rapidly from smaller fires. Crown fires may develop and become unmanageable until the weather changes or the fuel source is consumed. Control is extremely dangerous to all personnel.

j. The current fire danger index condition can be obtained by contacting the West Point Fire & Emergency Services, (845) 938-3001 or (845) 938-2953 or by contacting Range Operations, (845) 938-3930 or (845) 938-3007.

k. The following guide will be used to determine the status of tracers and pyrotechnics. See figure 3-2.

**AMMUNITION/PROTECHNIC FIRE HAZARD DECISION MATRIX.**

**Table 3-2.**

ACTION	GREEN	BLUE	YELLOW	ORANGE	RED
Class V					
Blanks	U	U	U	C	C
Simulators/Smoke* Grenades	U	U	C	X*	X
Trip Flares/Parachute Flares/Booby Traps/Star clusters	X	X	X	X	X
Tracer Ammunition	U	U	C	X	X
Demolitions (C4)	U	U	C	C	C
40MM HE (M203)	U	U	C	C	C

U = Unrestricted use of listed action Exercise caution when executing listed action

C= Exercise caution when executing listed action

X = Listed actions banned

*\*Note: These pyrotechnics can be used when they are ignited and extinguished in a controlled burn pit. All pits must be inspected by Range Operations prior to use. The controlled burn-pit will be constructed utilizing sand bags. The dimensions of the sand sump will be two feet by two feet and one foot deep and three sand bags tall.*

**3-29. Ammunition.**

a. Units will adhere to requirements of Regulation 700-5. An Ammunition Inspection Check list for field operations is at Appendix N.

b. Ammunition will not be maintained on ranges overnight without the written approval of Range Operations IAW the approved Range Packet.

c. OICs and RSOs will be familiar with handling and storage for the type of ammunition being fired.

d. Incendiary ammunition will not be fired without prior approval from Range Operations (Weather driven).

e. Any unserviceable or suspected unserviceable ammunition lots will be immediately reported to Range Operations.

f. Tactical movement of ammunition from one range/artillery firing point to another on a vehicle capable of firing that ammunition is permitted. However, at no point in transit will rounds be chambered.

g. No ammunition, live or blank, projectile or explosive device, to include pyrotechnics/smoke of any kind will be brought into the cantonment area.

h. Personnel who discover unattended ammunition items will immediately contact Range Operations via Live Fire net or by telephone at (845) 938-3930 for instructions.



**3-30. Chemical Training Agents, Riot Control Agents.**

a. Except when prohibited by regulations or higher authority. Commanders may use riot control agents (RCAs) in training, subject to the following:

(1) Use of RCAs in training is limited to CS, CSX, CS-1, CS-2, and CR. All other RCAs are prohibited for training use.

(2) Use of RCAs in training requires supervision by personnel specially trained in field behavior, individual protection and first aid for RCAs. Personnel that meet these criteria are chemical officers (branch code 74), chemical NCOs (MOSC 54B), school trained NBC officers (SSI 3R) and NCOs (SQI C.)

(3) RCAs will not be used under conditions that are dangerous to life or property. Minimum safe distances to heavily traveled Installation roads, railroad right of ways, airfields (including all aircraft landing areas) or inhabited areas are:

(a) CS Chambers will be at least 100m away from heavily traveled roads, 500m from aircraft operations and inhabited areas, and 100m from the nearest Installation boundary.

(b) Field training exercises involving RCAs will be 500 m or more away from public traffic routes, the nearest inhabited buildings and 1,000 from Installation boundaries.

**3-31. Smoke Operations.**

a. No smoke operation will be conducted within 1000 meters of the reservation boundary, public roads, cantonment area or ammunition supply point. Units conducting smoke generator operations must have a smoke control point with communications to the smoke generator operators to ensure no smoke crosses these boundaries.

b. The use of smoke in training poses special health and safety issues. The following precautions apply to all smoke training with fog, oil, hexachloroethane (HC), red phosphorus WP, plasticized WP, terephthalic acid (TA) along with colored and diesel smokes.

c. Smoke will not be used in public demonstrations, displays or ceremonies unless positive dissipation of the smoke can be assured and no exposure to the public or nonparticipating personnel is expected. A risk management plan will be developed by the agency conducting the public demonstration, in conjunction with the Installation Range Control officer and safety director, for all uses of smoke in demonstrations, displays or ceremonies.

d. Permission to use smoke grenades will be identified RFMSS and Live Fire Training Packet. The only exception is for use during MEDEVAC (red for emergencies) helicopter missions, which requires no prior approval.

e. Smoke pots.

(1) Personnel manually firing HC and TA smoke pots will mask and keep their face turned away from the pots to prevent burn injuries. Once HC and TA smoke pots have ignited, personnel will quickly move away a minimum distance of 30 meters.

(2) Precautions will be taken to prevent ground fires. HC and TA smoke pots will not be fired inside building, tents or other enclosed areas because of fire and health hazards from associated fumes. Exceptions are building or structures specially designed for smoke training and only after conducting a thorough risk assessment, developing and implementing controls and acceptance of the residual risk by the appropriate commander.

(3) HC and TA smoke pots must be kept dry. Any addition of water to HC and TA smoke mixtures may cause it to burn erratically, explode or result in spontaneous combustion. HC smoke pots will not be ignited during visible precipitation (snow or rain).

(4) The M4A2 smoke pot must be vented for at least five minutes in accordance with TB CML 100.

(5) When electrically firing the M5 HC smoke pot, at least 30 meters of WD-1/TT wire will be used.

### **3-32. Blanks, Pyrotechnics, Simulators and Paint Marking Rounds.**

a. The firing of blank ammunition, pyrotechnics and simulators in tactical training areas is a prime cause of fire. Personnel utilizing any of the above training munitions will exercise caution to reduce the fire hazard. If a fire danger rating of High or greater exists, the OIC will first contact Range Operations for clearance. During periods of dry weather, the use of those training munitions may be suspended due to the hazards of brush fires. Range Operations will notify units when a fire hazard exists.

b. The following safety standards are minimal requirements while military units are using pyrotechnics in maneuver areas:

(1) A briefing by the commander or designated representative.

(2) A class conducted by a qualified instructor in the proper use of pyrotechnics and the inherent hazards associated with such use.

(3) An inspection of pyrotechnics by unit personnel before use.

(4) Return unused pyrotechnics to the Ammunition Supply Point (ASP) in the best possible condition as soon as possible to prevent misuse.

(5) Prepare standardized sand-sumps for pyrotechnic use in preparation of fire hazard/index change (Orange).

c. Leaders will ensure that all personnel are briefed on Blank Fire Attachments (BFA) and the safety hazards presented by improper use of the above items. They will also continuously monitor the use of the training munitions to ensure proper usage. Weapon systems for which BFA are manufactured will not be fired without the proper BFA. Blank ammunition will not be fired at personnel closer than five meters. Miles equipped systems will not be fired closer than seven meters. Simulators will not be fired closer to personnel than specified in applicable manuals and safety of use messages.

d. Trip flares, booby traps and any other pyrotechnics or simulators not detonated during training will be removed before the unit departs the area.

e. The use of commercial firecrackers or homemade devices in lieu of standard pyrotechnic devices is prohibited.

- f. Blanks, pyrotechnics and simulators will not be used within 500 meters of the reservation boundary or public roads.
- g. Aerial pyrotechnics will be cleared with Range Operations prior to usage to ensure the airspace is clear.
- h. Paint rounds are authorized for use in all non-cantonment training areas.
- i. Due to quickly evolving equipment and standards, safety procedures for each exercise using marking rounds will be developed at the unit level using references provided by Range Operations. The final training program will be approved by Range Operations as part of the Range Packet.

**3-33. Police of Range and Training Areas.**

- a. Commanders are responsible for the police of ranges and training areas used by their units.
- b. Upon completion of training Commanders will have their units conduct a thorough police of the area to ensure no trash, ammunition boxes or other debris have been left. If, upon occupation, a unit discovers the area was not policed by the last user, Range Operations will immediately be notified. Failure to follow this procedure will result in the incoming unit being held responsible for the police when clearing the area. At least two hours prior to departure from the area, the OIC will contact Range Operations and request a range clearance inspection. If it is not possible for the inspection to be conducted prior to unit departure or if the inspection is unsatisfactory, the Commander will designate a responsible individual to accompany Range Operations personnel on a subsequent inspection within 24 hours. Special arrangements, such as clearances during an ARTEP or EXEVAL exercise, when a unit may be unable to accurately forecast departure from a training area, may be coordinated in advance with Range Operations. If an area is found to be in a poor state of police, the using unit will be required to return to the area and police it thoroughly.
- c. AR 11-21 prohibits the burning of trash on government owned land and West Point prohibits burying trash in training areas. Refuse will be returned to the cantonment area or transfer point.
- d. Upon completion of training, using units will collect and remove brass. The only exception to this is the collection of spent brass expended from aircraft mounted weapons fired within the dedicated impact area.
- e. Failure to Police Range and Training Areas IAW this paragraph may result in cancellation of future scheduled activities until corrective action is taken.
- f. Units will restore maneuver areas at the completion of training as outlined in this regulation. Ensuring that areas are prepared for subsequent users by removal and proper disposal of:
  - (1) Trash.
  - (2) Wooden pallets.
  - (3) Concertina or communications wire.
  - (4) Ammunition and parachute residue.
  - (5) Portable latrines.

*g.* Excavations in the maneuver training areas will be restored to previous contour.

Other examples include but are not limited to:

- (1) Fighting positions.
- (2) Crossing obstacles.
- (3) Foxholes.
- (4) Berms.
- (5) Trenches.
- (6) Bunkers.

*h.* Excavations are not authorized within 100 meters of roads, trails, streams/drains or the Installation boundary fence.

*i.* Units that used multiple training areas should plan sufficient time and equipment for restoration. Clearance will be completed during the scheduled maneuver area usage time.

*j.* Units conducting training over an extended period of time must request a pre-inspection 48 hours prior to departure.

*k.* Before departing a range or training facility, the OIC will contact Range Operations and request a range inspector.

*l.* Using units collect and remove brass, wire, pickets and obstacles from ranges.

*m.* Units that fail to clear training areas will have range and training area requests denied until the range is properly cleared.

### **3-34. Construction or Modification of Training Facilities.**

*a.* Requests for construction or modification of ranges or training facilities will be coordinated with Range Operations. No modifications to ranges or training facilities will be made by any unit without the approval of the Range Officer. Training unit personnel will not attempt to repair any training facility or equipment.

### **3-35. Maneuver Damage Reporting.**

*a.* Report damage to Maneuver Training Areas (MTA).

*b.* Allows damages to be programmed for repair work.

*c.* Repairs land damage before it becomes worse or costs more.

*d.* Provides land stewardship guidance to Commanders on how to minimize environmental and land damage but not cause restrictions on maneuver training opportunities.

*e.* Establishes land responsibilities and procedures for military units and Installation agencies.

*f.* Monitor and track unit excavations to ensure sites are properly refilled and to prevent major erosion from starting.

*g.* Involves unit to assess any damage found for timely reporting and is part of the unit clearing process after training.

*h.* Involves leadership in land stewardship planning, per TC 5-400 (Unit Leader's Handbook for Environmental Stewardship).

*i.* Provides data for trend or repair analysis and prioritizing of repair work.

*j.* Ensures units properly police and clear training areas to sustain training land for follow on units.

### **3-36. Reporting Hazardous Material Spills.**

*a.* Units will immediately report, using this format:

- (1) Hazardous material spills of any quantity.

- (2) Petroleum, oil and lubricant (POL) spills greater than five gallons.
- (3) Spills covering more than 100 square feet (10 x 10).
- (4) Spills that enter or threaten to enter water networks or systems.
- (5) Immediately contact Range Operations by the Live Fire net or by land line, (845) 938-3930.

b. Civilians living adjacent to West Point who discover an accident or incident on their property, should notify the West Point PAO office at telephone (845) 938-3808 or the Military Police desk (845) 938-3333 (after duty hours).

### **3-37. Composite Risk Management.**

a. Composite risk management (CRM) is the Army's primary decision making process for identifying hazards and controlling risks across the full spectrum of Army missions, functions, operations and activities.

b. CRM is a decision making process used to mitigate risks associated with all hazards that have the potential to injure or kill personnel, damage or destroy equipment, or otherwise impact mission effectiveness. In the past, the Army separated risk into two categories, tactical risk and accident risk. While these two areas of concern remain the primary premise of CRM is that it does not matter where or how the loss occurs, the result is the same decreased combat power or mission effectiveness. The guiding principles of CRM are as follows:

(1) Integrate CRM into all phases of missions and operations. Effective CRM requires that the process be integrated into all phases of mission or operational planning, preparation, execution and recovery.

(2) Make risk decisions at the appropriate level. As a decision making tool, CRM is only effective when the information is passed to the appropriate level of command for decision. Commanders are required to establish and publish approval authority for decision making. This may be a separate policy, specifically addressed in regulatory guidance or addressed in the commander's training guidance. Approval authority for risk decision making is usually based on guidance from higher HQ.

(3) Accept no unnecessary risk. Accept no level of risk unless the potential gain or benefit out-weighs the potential loss. CRM is a decision making tool to assist the commander, leader or individual in identifying, assessing, and controlling risks in order to make informed decisions that balance risk costs (losses) against mission benefits (potential gains).

(4) Apply the process cyclically and continuously. CRM is a continuous process applied across the full spectrum of Army training and operations, individual and collective day-to-day activities and events and base operations functions. It is a cyclic process that is used to continuously identify and assess hazards, develop and implement controls and evaluate outcomes.

(5) Do not be risk averse. Identify and control the hazards; complete the mission.

c. Refer to Appendix R.

## **Chapter Four Aviation, Parachute, and Helocasting Operations.**

### **4-1. General.**

a. All aviation operations within the West Point Range and Maneuver Training Area (MTA) require prior coordination and Range Facility Management Support System (RFMSS) scheduling with the Range Office at (845) 938-3930 or (845) 938-8559. See paragraph 2-12, Scheduling of Airspace. The Local Flying Area (LFA) for United States Military Academy (USMA) at West Point consists of the airspace overlying the West Point Military Reservation (WPMR), including external reservation boundary routes and those routes necessary to transition between Stewart International Airport (SWF) and WPMR. The WPMR airspace consists of the Cantonment Area (CA), located Northeast of New York State (NYS) Highway 9W and Southeast of Route 218 and the West Point Maneuver Training Area that lies to the West of Highway 9W and extends both North and South of Route 293 to the reservation boundaries. The LFA consists of two types of airspace: Uncontrolled and Special Use. Refer to the West Point Aviation Procedures Guide (APG) for specific requirements and guidelines involving aviation operations at the USMA. The APG will receive special emphasis during the mandatory aviation Safety Briefing conducted by the 2nd Aviation Detachment (2AV) at (845) 567-1209, required prior to conducting aviation operations on the WPMR. Obtain a digital copy of the APG from the USMA G3/5/7 at (845) 938-2272. Non-Tenant units requesting access to HLZs in the West Point MTAs for helicopter operations will contact the Range Office at (845) 938-3930. External aviation units shall adhere to all pertinent Range Office regulations and internal SOPs along with procedures and guidelines in the West Point APG.

### **4-2. Helicopter Operations.**

All supporting aviation units shall receive a mandatory Aviation Safety Briefing from the 2nd Aviation Detachment at (845) 567-1209 located on the Army Ramp at SWF, prior to conducting air operations on the WPMR. Units operating ISO CST should contact the detachment regularly to receive mission updates. Before flight, aircraft shall contact Range Operations for active NOTAMs or "No Fly" areas. Range Operations requires a 30 minute notification prior to take-off when operating within the airspace overlying the MTA. The supporting aviation unit shall maintain flight following with Range Operations on VHF 126.2 when operating ISO the USMA mission. Aircraft shall contact Range Operations every 30 minutes while airborne and upon arrival/departure from Helicopter Landing Zones (HLZ) within the MTA. The supporting unit's flight operations or USMA Support Element shall notify the Range Office prior to first aircraft launch of the day and upon final mission completion. Requests to use the MTAs for helicopter operations require a minimum 14 day lead time. Composite Risk Management (CRM) worksheets shall be turned-in to the Range Office not later than five days prior to conducting missions or training involving airspace usage over the MTA.

**4-3. Parachute Team Operations (West Point Cadet Parachute Team).**

a. Only Cadet Parachute Team operations shall be conducted at West Point. The Cadet Parachute Team may conduct West Point Football Team Home Game Jumps only with Active Duty Parachute Demonstration Teams. All applicable provisions of Federal Aviation Regulations (FAR), Army Regulations, Unit SOP and other airborne related publications apply when conducting parachute operations into the DZ or certified areas.

b. Maddock Drop Zone (DZ) located at Lake Frederick is the only authorized DZ in the MTA and it will only accommodate Ram-Air canopies (Main & Reserve). Maddock DZ is located at WL753774. Military units and/or agencies requiring use of the drop zone shall contact the West Point Range Office at (845) 938-3930. Only helicopter drops shall be conducted into this DZ without prior coordination and approval from the Range Office.

**APPENDIX A**

**A-1. RESERVED FOR FUTURE USE.**

**APPENDIX B DIRECT FIRE SYSTEMS**

**B-1. SMALL ARMS AND MACHINE GUNS.**

DA Pam 385-63, Chapter 6.

**B-2. FRAGMENTATION GRENADES.**

a. Permission to establish other temporary hand grenade ranges must be thoroughly justified and requested in writing to Range Operations.

b. When a grenade has been thrown and does not explode, all throwing will cease in the effected pit until EOD personnel have destroyed the dud grenade. A 30 minute waiting period is required prior to EOD approaching the dud grenade.

c. Range Operations will restrict use of fragmentation grenades when snow conditions will make recovery of dud grenades dangerous.

d. If a dud is identified when grenades are used in tactical scenarios, all training at that facility will cease.

e. The OIC and RSO must be thoroughly familiar and fully compliant with DA Pam 385-63, paragraph 7-1.

**B-3. 40MM (M203, MK-19, M320) GRENADE LAUNCHERS.**

a. Range operations with the 40mm grenade launchers, M203 and M320 will adhere to procedures specified in FM 3-22.31 and DA Pam 385-63, Paragraph 7-2.

b. Minimum engagement criteria for 40mm M203/M320 HE is 135 meters and HEPD is 165 meters.

c. Range Operations with the 40mm MK-19, MOD3, will adhere to procedures specified in FM 3-22.27.

d. Range Operations will restrict use of grenade launchers when snow conditions will make recovery of dud grenades dangerous.

e. When conducting operations with the MK-19 weapon system, the following safety precautions will be observed:

- (1) Weapon and ammo containers require a two-man lift.
- (2) Do not fire high explosive ammunition at targets less than 310 meters away during training to avoid exposure to shrapnel.
- (3) Helmets, body armor, hearing protection and eye protection will be worn by the gunner and all personnel close to the firing weapon, additionally sleeves will be rolled down and gloves worn. The maximum allowable exposure to MK-19 firing is 1,000 rounds per 24 hour period within 30 meters of the gun location in order to avoid hearing loss.
- (4) All personnel should be kept behind the weapon position.

#### **B-4. RECOILESS WEAPONS.**

- a. Back blast areas are doubled and firers should wear protective masks when the LAW is fired in temperatures below freezing.
- b. The firing of sub-caliber trainers is only permitted on Range 7.
- c. All firing of AT-4 will be IAW FM 3-23.25.
- d. All ammunition is restricted to the dedicated impact area.

#### **APPENDIX C MORTARS.**

##### **C-1. MORTARS.**

Mortar firing will adhere to the procedures specified in the appropriate TM for the weapon being fired and DA Pam 385-63, Chapter 10.

##### **C-2. MORTAR SAFETY CONSIDERATIONS.**

- a. Firing mortars over the heads of unprotected troops is not authorized. See DA Pam 385-63 paragraph 10-1a.
- b. Mortar rounds will be stored in a closed container, such as the shipping container with no propellants exposed, until the round is readied for firing.
- c. Increments removed from rounds will be stored in a metal or wooden covered container located outside the firing vehicle/position. As a minimum, a separation distance of 25 meters will be used.
- d. Mortars shall not be fired when targets are masked by fog, smoke or other obscurants, unless an operational impact locating radar is in use.
- e. All impacts must be visually observed or tracked by radar. Rounds sensed as lost will not be repeated until firing data and weapon lay has been thoroughly checked and verified.
- f. The area immediately forward of a mortar tube may not be occupied by personnel, except for protected troops as discussed above.
- g. All persons taking part in mortar firing will wear Kevlar helmets and hearing protection.



*h.* No smoking, cooking or open flames will be allowed in mortar vehicles or within 25 meters of the firing line or increment storage areas.

*i.* White phosphorus rounds are not authorized on the WP training complex.

*j.* Any individual who observes an unsafe act or condition may cause firing to cease by commanding "**CHECK FIRE**". The act or condition will then be explained and corrected immediately.

*k.* A spotter shall be designated at each position that shall remain alert and watchful for personnel, vehicles or aircraft that may inadvertently wander into the surface danger zone. Should this occur, firing shall cease and Range Operations will be advised. Firing may not resume until personnel, vehicles or aircraft have left the danger area and Range Operations has lifted the check fire.

### **C-3. SAFETY, 60MM, and 81MM MORTAR.**

Units shall not fire the M720 DODIC B642 cartridge at greater than charge one in the 60mm mortar hand held mode.

### **C-4. MORTAR AMMUNITION.**

*a.* General. All personnel responsible for drawing, handling, firing and turning in ammunition are directly responsible for all ammunition entrusted to them. Smoking will not be permitted within 25 meters of the ammunition.

*b.* Transport of Ammunition.

(1) Vehicles will be loaded properly, observing compatibility, maximum weight and proper stacking restrictions.

(2) Unpacked ammunition will not be transported on the metal bed of ammunition vehicles.

(3) The authorized driver and his assistant are the only personnel permitted to ride in the ammunition vehicle. Combat configured loads of ammo are authorized to be carried in the crew compartment of mortar team vehicles.

*c.* Preservation, Storage, and Safety.

(1) Ammunition will not be removed from sealed containers any earlier than is necessary to prepare it for firing. No more than three rounds per gun may be removed from the protective tubes and fuzed unless the specific mission calls for different amounts.

(2) Ammunition will not be exposed to the direct rays of the sun. Charges will be kept dry at times.

(3) Excess increments within the same lot number may be used as replacements for defective increments.

(4) Fuzed rounds must be handled carefully. The explosive elements in primers and fuzes are particularly sensitive to shock and high temperatures.

*d.* Burning of unused increments.

(1) Burning of unused increments will be IAW WP Range Operations SOP.

**C-5. MORTAR FIRING POINTS.**

Range Operations maintains a list of all surveyed firing positions on the West Point Military Reservation. Units may submit requests for proposed new firing points to Range Control for approval.

**APPENDIX D ARTILLERY.**

**D-1. ARTILLERY.**

Artillery firing will adhere to the procedures specified in the appropriate TM/FM for the weapon system being fired and DA Pam 385-63, Chapter 11.

**D-2. ARTILLERY SAFETY CERTIFICATION.**

a. Field Artillery battalion Commanders will establish and maintain an artillery safety training and certification program. An information copy will be provided to Range Control.

b. Battalion Commanders will submit current command safety certification lists to the Range Control. Commissioned and noncommissioned officers whose names do not appear on these lists are not allowed to perform OIC, RSO or other artillery firing-related safety functions.

c. Battalion Commanders will ensure that only certified personnel perform as a ROIC or RSO during live firing.

d. The OIC and RSO will be present on the firing point at all times when the unit is conducting live fire training. If the OIC or the RSO leaves the firing position for any reason, the name of the new OIC and or RSO will be reported to Range Operations. Regardless of which individual within his unit is reported to Range Operations as the OIC, the battery commander remains responsible for the safe operation and firing of his unit.

**D-3. GENERAL ARTILLERY SAFETY CONSIDERATIONS.**

a. Range Operations has determined target area boundaries. Left and right limits of the target area determine the left and right limits of fire. The maximum range line (arc) will be the far edge (down range) of the target area and minimum range line (arc) will be the near edge (up range) of the target area. Unprotected personnel are prohibited in the target and associated hazard areas (areas A, B, C, and E) during firing.

b. The size of the impact area depends upon the requirements of the firing exercises planned and the overall target area as directed by the RCO.

c. Basic dimensions of the impact area will be computed as specified in FM 6-20-20, FM 6-40 and applicable USMA Range Regulation 350-11.

d. Firing table probable errors corresponding to the range for the center of the target area will be used for this computation. These basic dimensions are based on standard conditions. They do not compensate for errors or nonstandard conditions.

#### **D-4. ARTILLERY AMMUNITION.**

a. Safety precautions contained in applicable training and field manuals, safety of use messages and data sheets provided by the ASP for the ammunition being used will be rigorously followed by all personnel.

b. Ammunition to be fired will be removed from sealed containers and protected from adverse weather conditions, to include direct sunlight. Ammunition will not be removed from containers until just prior to firing. During firing phases only three rounds per gun may be removed from the protective tubes and fuzed. The only exception will be for ammunition prepared for a schedule of fires or preparation. Then only those rounds required for that specific event shall be prepared in advance. Fuzes will not be set until the command "Time" is given. Powder bags will not be cut until the command "Deflection" has been given. Rounds can be fired on the command "Fire."

c. Only authorized fuze wrenches will be used to assemble the fuze to the projectile, and excessive pressure will not be used.

d. Units should inspect all fuzes to ensure that the correct setting for shipping and handling is set.

e. Powder Burning. All units will burn excess powder increments IAW Range Operations SOP.

#### **D-5. ARTILLERY FIRING POINTS.**

Range Operations maintains a list of all surveyed firing positions on the West Point Military Reservation. Range Operations will furnish safety limits and safe firing data.

### **APPENDIX E AVIATION ACTIVITIES.**

#### **E-1. GENERAL.**

All aircraft operations when using or transiting R-5206, shall adhere to the check-in/check-out procedures, if not specifically in support of Cadet training. These procedures do not offer positive aircraft control, nor do they relieve the individual aviator of the responsibility of detailed preflight planning, to include coordination with the Range Office for Hot ranges or other information. Extreme caution should be used by all aircrews during operations in and around R-5206.

#### **E-2. Cantonment Area (CA) Operations.**

a. All aviation operations into the West Point Cantonment Area will be coordinated through the USMA, G-3/5/7, G-33 Air Operations Officer, (845) 938-2272. Refer to the APG and the USMA Aviation Map for additional restrictions and seasonal No-Fly areas. Constitution Island and the high ground approximately one kilometer to the north, along the Hudson River, across from West Point remains an active Bald Eagle No-Fly Area from December through March. Aviation units requesting to land at a Helicopter Landing Zone (HLZ)/North Dock Helipad on the CA shall contact the USMA G-33 Air

Operations Officer to request a PPR. Landing at any HLZ on The Plain requires the USMA Superintendent's approval. Prior to entering the West Point Military Reservation (WPMR), aircraft shall monitor the USMA CTAF on VHF 126.2. Parachute operations regularly take place on The Plain, a large flat grass Parade Field located in the Cantonment Area (CA). The Plain DZ is used for Parachute Team practice and Cadet Review jumps. These parachute jumps take place in front of the Superintendent's Review Box. Parachute operations occur regularly on The Plain with an estimated time of 1530 to sunset during the Spring & Fall Jump seasons. Parachute operations occur at several locations in the CA, sometimes on short-notice.

### **E-3. AIRSPACE MANAGEMENT.**

a. The following procedures apply to aircraft operating in and around the West Point Range and Maneuver Training Areas (MTA) in support of activities at the United States Military Academy. Users are reminded that the West Point (WP) Aviation Procedures Guide (APG) provides procedures and guidelines for aviation activities when supporting the West Point mission in the Local Flying Area. Airspace overlying Academy grounds is uncontrolled, except when R-5206 is active (See NY Sectional, applicable Flight Information Publications (FLIP) and NOTAMS for specific dates & times). An NCAA TFR is in effect on Home Football Game Days or when NOTAMS are issued for the spring and fall parachute seasons and special events. The airspace is predominantly uncontrolled Class G, but it includes a Restricted Area (R-5206) that overlies an impact area (both active & historic), used primarily for artillery and mortar fire during annual Cadet Summer Training (CST) from 1 July through 31 August. R-5206 is frequently activated by NOTAM throughout the remainder of the year. The USMA has a dedicated Parachute Drop Zone, Maddock DZ (18T WL 7535 7728), located north of Lake Frederick, just inside the western edge of the WPMR boundary. It is used solely by the West Point Cadet Parachute Team for Military Free Fall (MFF) parachute operations and will be strictly avoided when activated by NOTAM and during the spring and fall jump seasons. Only the airspace encompassing R-5206 can be used for live fire and UAS operations in the MTA. Only airspace outside of R-5206 overlying the MTAs shall be used for tactical training. Aviation units must be aware that areas outside of R-5206 can be over flown by civilian aircraft adhering to Title 14 of the Code of Federal Regulations (CFR) without restriction. Exercise caution when conducting tactical training within the airspace overlying the WPMR. Civil aviation uses the Hudson River corridor as a route to/from New York City for both Private and Commercial Rotary and Fixed Wing traffic. Additionally, aircraft departing from Stewart International Airport (SWF) to the south are channeled by the terrain toward USMA airspace. Be extremely vigilant when operating around the reservation for unannounced civilian aircraft inadvertently entering the airspace. Helicopter Landing Zones (HLZ) are located throughout the WPMR and are denoted on the West Point Aviation and Range Area maps by a colored triangle. No aircraft shall conduct operations within the WPMR without a West Point Aviation Map in the aircraft.

**E-4. Terrain Flight Operations.**

a. Nap of the Earth (NOE) flying with Cadets on-board is prohibited. Supporting aviation units shall adhere to published routes for noise abatement purposes ICW the West Point Fly Neighborly program. Units shall avoid over flight of the West Point housing areas and shall remain on published routes when near the West Point Cantonment Area and local towns. Published routes are mandatory during night operations ISO CST. All flights will comply with Title 14 of the Code of Federal Regulations (CFR) and applicable DoD and unit regulations. The only Range Office authorized terrain flight areas are: West Low Level Area: Training Areas - B, N, I, S, O, Q, A1, A2, C and P. South Low Level Area: Training Areas - T1, T2, X, U1, U2, Y and Camp Shea (CS). No more than two aircraft may operate in any terrain flight area at a time. Aircraft operating at terrain flight altitudes shall contact Range Operations on VHF 126.20 when starting and ending low level training. Aircraft landing and departing from an HLZ shall make CTAF arrival and departure calls. Landing at areas other than HLZ's in the MTA is not authorized, except in an emergency. The WPMR has numerous hazards to flight.

**E-5. ARMY FLIGHT FOLLOWING SERVICE (AFFS).**

- a. West Point does not have AFFS.
- b. Due to restrictive terrain within the West Point MTA, units operating in support of the West Point mission shall maintain Flight Following with the supported unit operations or Range Operations on VHF 126.20, every 30 minutes. All aircraft shall monitor the LFA CTAF on VHF 126.20 while operating within the reservation boundaries and self-announce prior to joining/departing the Air Route System. All aircraft shall be cleared by Range Operations on VHF 126.20 prior to entering R-5206 or conducting HLZ operations in the MTA. External aviation support assets will use the external reservation boundary routes during night operations to circumnavigate the WPMR and avoid local communities for noise abatement purposes when conducting missions ISO CST. Additional FSS support may be obtained via 1-800-WXBRIEF or in-flight thru NY/ISLIP Radio on 122.2/4/6 or 255.4. Lockheed Martin Automated Flight Service Station (LMFS) provides:
- (1) Pre-flight, in-flight, operational and special services.
  - (2) En route communications.
  - (3) Search and rescue services.
  - (4) Pre-flight and in-flight meteorological and aeronautical briefings, such as current conditions, Notices to Airmen (NOTAMs) and destination forecast.

**E-6. WEST POINT RESTRICTED AREA (R-5206).**

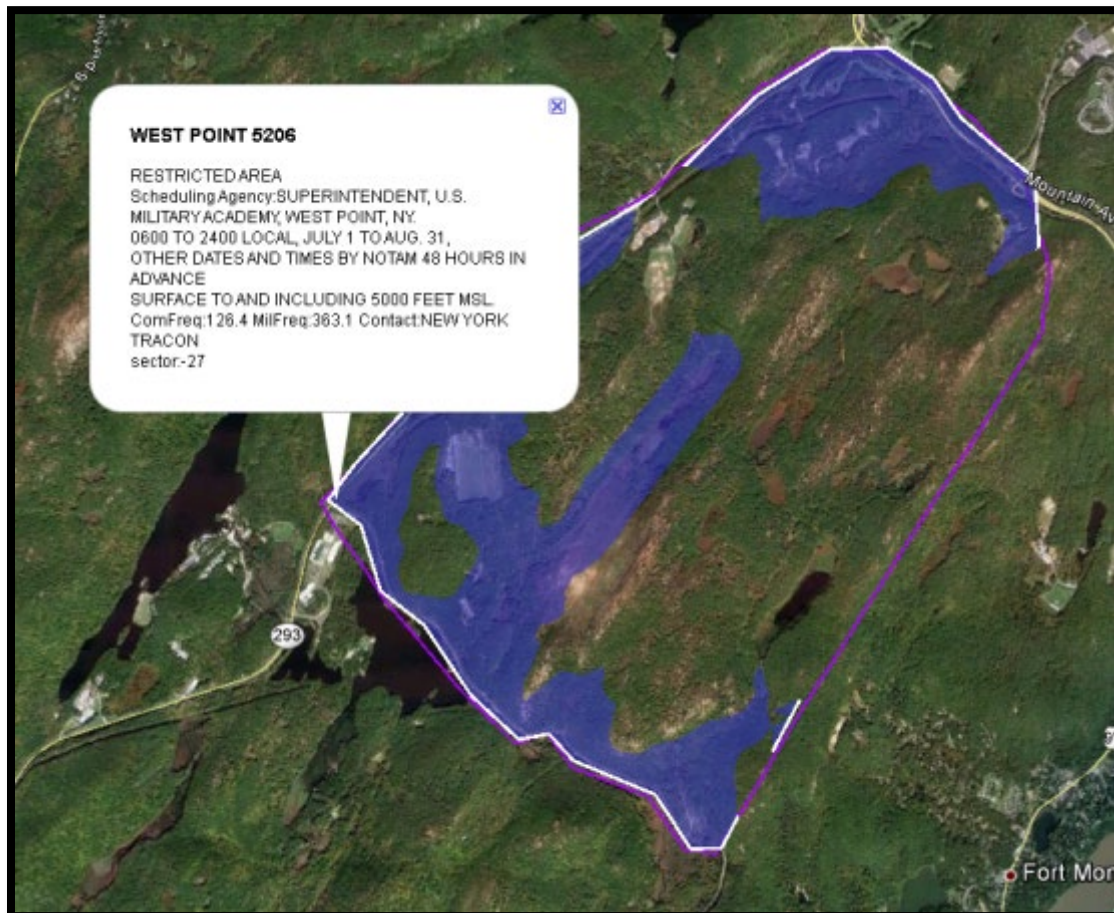
a. All aircraft will contact Range Operations on VHF 126.20 prior to entering into the R-5206. Separation of aircraft is a pilot responsibility exercised through a combination of constant vigilance, air-to-air communications and Range Operations notifications.

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*\*Note: When R-5206 is active, aircraft shall obtain a Range Status PRIOR to entering R-5206. R-5206 Briefings will be obtained telephonically at (845)938-3930 or while in-flight from Range Operations on VHF 126.2; avoid over flight of hot ops, hot ranges and artillery firing points. Always avoid low over flight of the main impact area.*

b. Procedural Separation. Aircraft operating within R-5206 shall maintain a see and avoid posture and adhere to safety procedures. Due to regular short-notice aerial events on the WPMR, it is recommended that pilots contact the Range Office or USMA G-33 Air Operations Officer prior to planning any operations at the USMA outside of support for CST. In the event an aircraft conducts an emergency landing inside the live fire (Impact) area, the supporting unit flight operations will notify the Range Office immediately to coordinate recovery operations. The supporting unit will not enter the impact area without Range Office approval. Aircrew conducting an emergency landing inside the Impact Area shall pass their location to Range Operations and remain inside the helicopter until Range personnel or EOD arrive on scene. Personnel are reminded of the existing UXO hazard in the Impact Area.

**Figure E-1 (R-5206).**



c. The following procedures will be followed.

(1) Aviation units supporting the WP mission will obtain the most current West Point Aviation map from the ITAM office. A current map is required for all aviation operations within R-5206 or when landing to any HLZ within the WPMR.

(2) Prior to conducting aviation operations, units will contact the 2<sup>nd</sup> Aviation Detachment at, (845)567-1209 to receive an updated brief on current air operations.

(3) On all flights within the WPMR boundaries, aircraft will have a WP Aviation map on board annotated with all pertinent information; i.e. restricted areas and airspace, designated noise abatement areas and control measures. To reduce errors in accurately reporting an accident location, all aircrews will utilize West Point Aviation Map sheet (Scale: 1:25,000).

(4) Aircraft shall not operate within R-5206 on any flight path causing under flight of artillery gun-target lines.

(5) Aircraft experiencing communications failure within R-5206 shall exit by the most expeditious route possible avoiding known Hot Ranges and Gun-Target lines.

(6) Weather minimums are IAW Unit SOP for Tactical Operations.

**\*Note: Aircrews shall use CTAF VHF: 126.2 for traffic advisories.**

d. Air Route System (ARS). The ARS consists of a route on the external boundary of the WPMR and routes between SWF and USMA. The external boundary route circumnavigates the WPMR ensuring clearance from the Restricted Area R-5206 and avoids local communities and the Cantonment Area for noise abatement purposes. Aviation units operating ISO CST at night shall use the external boundary route. Two-way traffic flow on all routes will utilize rules of the road and a minimum altitude of 1000 feet Above Ground Level (AGL). Aircraft shall enter/exit routes via published checkpoints and make CTAF calls on VHF 126.2. The WP APG contains more detailed information on Aviation Operations at USMA.

## **E-6. AVIATION GUNNERY.**

a. General. All aviation gunnery will comply with DA Pam 385-63, Chapter 13. User units may use the West Point Aircraft Pre-accident Plan (WP Reg 385-6) or may use their own tactical pre-accident plan. Unit pre-accident plans shall, at a minimum, cover all items listed in the West Point pre-accident plan. Prior to deployment, the unit's Aviation Safety Officer must brief the unit's pre-accident plan to all personnel involved in training.

b. Air Safety.

(1) The following weather restrictions apply to aerial gunnery into the impact area:

(a) Minimum day visibility for range firing is 800 meters (1/2 mile) and impact visibility of fired weapon. Minimum ceiling for day range firing is 500 feet.

(b) Minimum night visibility for range firing is 1600 meters (1 mile) and impact visibility of fired weapon. Minimum ceiling for night range firing is 500 feet.

(2) Inadvertent IMC Procedures IAW unit SOP.

*\*Note: Units should consider the elevated terrain when establishing procedures ISO USMA operations.*

(3) Helicopters.

(a) Helicopters must have a minimum of two radios for two-way communications with the AMC, ground support element and the Range Operations.

(b) Passengers or observers shall not be carried in helicopters operating within R-5206 unless individually approved by the Range OIC and properly manifested.

(4) Routes: Routes shall be flown exactly as published or approved by the RSO.

c. Aircraft Pre-Accident Plan.

(1) General. The aircraft and armament emergency plan (Pre-Accident Plan) prescribes procedures to be followed in the event of an aircraft emergency (accident, incident, emergency situation,) during conduct of range firing. See West Point Aircraft Pre-accident Plan (WP Regulation 385-6) for specific guidance.

(2) Aviation units shall provide Range Control with a copy of their Pre-Accident Plan at least 48 hours prior to conducting gunnery operations.

## **APPENDIX F. AIRBORNE AND AIR ASSAULT OPERATIONS.**

**F-1. ORGANIZATION.** To become operational, drop zones require key personnel to be located on the DZ for controlling, marking, medical evacuating, wind readings and malfunctions.

a. USAF STT and DZSO. STT and DZSO personnel are normally used in joint airborne operations of more than four troop carrier aircraft. Reference MOA 87 airdrop operations without STT.

b. DZST. The DZST consists of trained military personnel. It is normally used in small joint airborne operations involving four or fewer troop carrier aircraft. CARP, GMRS, JSJR, WSVC or VIRS is used.

c. DZSO. Acting alone without STT support the DZSO operates the drop zone with a small number of aircraft dropping a limited number of personnel. The airdrop release method used is CARP or GMRS, or if rotary-wing and small fixed-wing aircraft are employed, VIRS or WSVC.

**F-2. DROP ZONE SAFETY OFFICER DUTIES.** The USAF STT and Army DZSO have specific duties, which are discussed as follows:

a. When the USAF STT is supporting an airborne operation, the DZSO is the airborne commander's direct representative on the drop zone and he is responsible for the safe operation of the DZ. No personnel or equipment is to be dropped if the DZSO is not physically on the DZ.

(1) Special Duties. The duties of the DZSO are:



- (a) Coordinating with the USAF STT.
- (b) Ensuring the drop zone is fully operational one hour before drop time.
- (c) Opening the drop zone through Range Control and closing it when accountability of personnel, air items and equipment is completed.
- (d) Before the drop, conducting ground or aerial reconnaissance of the DZ for obstacles or safety hazards.
- (e) Collocating with USAF STT and taking initial wind readings one hour before the scheduled drop time.
- (f) Establishing communications with the DACO NLT one hour before drop time.
- (g) Conducting continuous surface wind readings not later than 12 minutes before the scheduled drop. Giving the CLEAR TO DROP or NO DROP to the STT (to relay to aircraft) 2 minutes before the scheduled drop.
- (h) Monitoring surface winds from the parachutists' point of impact and at the highest point of elevation on the drop zone. A NO DROP situation exists when surface winds exceed the maximum allowable limits within 10 minutes of the actual drop.
- (i) Controlling all ground and air medical evacuations. Priority for airspace must be given to medical evacuations. This is particularly important when rescue or medical aircraft are involved since they may be delayed if follow-on jumps continue.
- (j) (USPA) Basic Safety Regulation (BSR) that all jumpers must wear flotation device when a body of water is within one mile of intended DZ (body of water is defined as a body of water deep enough to drown a jumper.
- (k) Submitting post-mission reports (for example, MAC Form 168 or incident/accident forms) to the appropriate agency.

***\*Note: The CLEAR TO DROP or NO DROP that is relayed at two minutes does not indicate the final wind reading. If surface winds increase beyond authorized limits, a NO DROP can be relayed at any time thereafter. If readings exceed the limits, the DZSO must reestablish a ten minute window.***

(l) The DZSO ensures the ground support team is in place on the DZ one hour before the drop. These requirements may be supplemented based on the type of drop, size of operation, number of aircraft, number of parachutists, and geographical location of the DZ.

a. For single aircraft (no more than a 20-second exit time or no more than 2,100 meters of usable DZ), the composition of a partial control group is as follows:

- (1) One DZSO (an assistant DZSO is not required).
- (2) Wind reading from a single location on the DZ.
- (3) Medic or EMT qualified personnel with a dedicated vehicle USMC/USN requires one qualified Navy corpsman.
- (4) Malfunction officer (with camera, binoculars, and night vision goggles for night operations). Due to the small nature of our operation and limited personnel, the DZSO and malfunction officer are the same person.

- (5) Parachute recovery detail.
- (6) Radio.

b. Anemometers. Services should only use approved anemometers to measure surface winds during all personnel and cargo parachute operations. The approved anemometers are the DIC, DIC3, TurboMeter, and AN/PMQ-3A. The AN/ML433A/PM and the anemometers that use floating balls or small floating lightweight aluminum devices in a tube are not authorized for use during personnel or cargo airdrop operations. The DIC, DIC3 and TurboMeter cannot be calibrated, they must be given an expedient check just before use.

(1) Ensure fresh batteries are installed in the anemometer. Check the anemometer in a no-wind condition such as in a vehicle cab or a building. Turn on the anemometer and if any reading other than zero registers then the anemometer is not fit for use and must be discarded.

(2) Use a three-anemometer check by comparing the reading on three anemometers in identical conditions. Discard the one anemometer that doesn't read the same as the other two.

(3) The TurboMeter must be held within 20 degrees of wind line with the wind entering the rear of the meter to ensure accurate readings.

(4) Calibration requirements for the AN/PMQ-3A will be conducted IAW appropriate TMs. Other anemometers not tested and recommended for use should be employed only after a command-initiated risk assessment is completed. Regardless of the method or device used to measure DZ winds, the airborne commander is responsible for ensuring winds on the DZ do not exceed 13 knots.

(a) Static line drops and cargo drops are not authorized at Maddock DZ.

(b) The DZSO has operational responsibility for the drop zone. In addition to the DZSO's duties for drop zones, the DZSO must also:

(1) Be positioned at the point of impact 15 minutes before drop time (One DZSO).

(2) Relay a ground weather decision and CLEAR TO DROP or NO DROP signal to the lead aircraft 2 minutes before the drop for each pass.

(3) During night drops, ensure all lights that are on or next to the drop zone and are not a part of the drop zone marking system are turned off 5 minutes before drop time and remain off during the drop (except those lights that mark obstacles).

(4) Contact the pilot of the aircraft immediately after the drop and ask if any personnel or equipment did not drop. He relays this information to the airborne commander on the drop zone.

(c) When advised of the coordination appointment by the airborne commander or his representative, the DZSO is furnished the following information:

- (1) Number of lifts.
- (2) Type of aircraft.
- (3) Drop zone requirements.
- (4) Unit SOP.

- (5) Station time.
- (6) Drop time.
- (7) Number of personnel for each pass.

**F-3. DROP ZONE SUPPORT TEAM AND DROP ZONE SUPPORT TEAM LEADER**

**DUTIES.** In operations in which the STT is not present, the DZSTL has overall responsibility for the conduct of operations on the drop zone. He represents both the airborne and airlift Commanders. The DZSTL assumes all the responsibilities normally associated with the USAF STT and DZSO. Refer to DZSO MOA between USAF and Army/USMC/Navy dated 26 June 1987.

a. DZSTs have the primary mission of supporting wartime airdrops for battalion-size units and below and peacetime airdrops of personnel, and for one to four aircraft operations. With some exceptions, these primary mission airdrops are limited to day and night visual conditions.

b. DZSTs also maintain the secondary mission of supporting other types of airdrops. The secondary missions may include wartime force projection and sustainment of personnel, equipment, and CDS; peacetime airdrops under AWADS and IMC conditions; and VMC formation drops with four or more aircraft.

c. The DZST consists of one or more individuals. More members may be required, depending on the complexity of the mission. The senior member of the DZST functions as the DZSTL. For combination airdrop operations, the DZSO/DZSTL must follow the procedures for heavy drop operations, but observe the jumpers as they exit the aircraft.

d. If an individual assumes the duties of both the DZSO and the DZSTL, he also is responsible for the following:

- (1) Conducting pre-mission coordination.
- (2) Evaluating the DZ for suitability and safe operating conditions.
- (3) Ensuring all DZ markings are properly displayed.
- (4) Operating all visual acquisition aids.
- (5) Ensuring NO DROP signals are relayed to the aircraft.

e. Once the DZSTL has been notified and assigned a mission, the DZSTL must conduct accurate pre-mission coordination. The recommended DZST crew mission briefing checklist reflects the minimum essential information that must be addressed and confirmed by the DZSTL. Normally, peacetime drops should employ every acquisition aid and safety device available, including air-to-ground radio communications, PIBAL mean effective wind measurement, air traffic control light gun, and smoke or flares. During contingency or wartime operations, limited airdrop support equipment is available; therefore, it is important for pre-mission coordination and briefings to be comprehensive with respect to visual signals (drop cancellation, postponement, and authentication procedures). The coordination must be timely to ensure the DZST has enough time for planning and for moving to and establishing the drop zone.

## **APPENDIX G. ENGINEER ACTIVITIES.**

### **G-1. SCHEDULING AND COORDINATION.**

- a. All engineer training projects will be requested in RFMSS.
- b. Six digit grid coordinates for proposed cratering, mine laying operations, tree cutting, abatis, log obstacles, and tank ditches are required for approval. Trees may not be injured or cut without approval from the Post Forester.

**G-2. BRIDGING OPERATIONS.** There are a variety of prepared bridging sites. Units desiring to use these or other sites must submit their requests to Range Control.

### **G-3. DEMOLITIONS AND ASSOCIATED ACTIVITIES.**

a. The following are just a few demolition safety considerations. Any unit conducting demolition training should be thoroughly familiar with and possess FM 5-250, Explosives and Demolitions and DA Pam 385-63, Chapter 17.

(1) Fumes and vapors released by the detonation of common explosives are toxic and will be avoided by positioning personnel upwind from detonation.

(2) Only EOD personnel may remove extremely hazardous unserviceable demolitions from training areas.

(3) Demolition training involving electrical ignition systems will be discontinued during any electrical storm activity.

### **G-4. DEMOLITIONS TRAINING SITES.**

a. Access to the training area will be controlled by the training unit to prevent entry of portable transmitting equipment into the surrounding areas.

b. Electrical ignition devices will not be used within 155 meters of energized power transmission lines.

c. The use of explosive charges (TNT blocks or composition C-4) to simulate detonation of mines, incoming artillery, mortar projectiles, and bombs will be requested in RFMSS.

d. A copy of the unit's DA Form 2203-R (Demolition Reconnaissance Report) will be provided to Range Control five weeks prior to using a demolition training site for training purposes.

### **G-5. SAFETY DISTANCES FOR DEMOLITIONS.**

a. The employment of explosive charges and CN/CS agents is permitted only with an overlay approved by Range Control.

b. The size of the respective danger area is as follows:

(1) 300 meter radius for charges less than 26.5 lbs (12.27 kg).

(2) Other distances are calculated using the following formula:  $D = 100 \times \sqrt[3]{W}$ .

Distance equals 100 times the cube root of the net explosive weight.

**NOTE: All weights are net explosive weight, not material gross weight. These distances are valid for an explosion in an open, flat area. Units should not rely on these distances but consult FM 5-250.**

- c. Demolitions will not be used on course trails or major roads.
- d. It is recommended that demolitions/explosive training be conducted in the Engineer Qualification Area (EQA).
- e. Demolition/explosive training in all other areas is by exception only.

## **APPENDIX H LASERS.**

**H-1. PURPOSE.** This appendix standardizes operating procedures that will be followed in order to minimize the possibility of accidental injuries.

### **H-2. GENERAL.**

- a. Laser safety is a command responsibility. Commanders are responsible for ensuring their subordinates understand all of the potential hazards of training with laser systems. No one may act as Laser Safety Officer (LSO) until certified in writing by the Battalion/Squadron Commander or separate Company Commander as qualified to perform duties as LSO for the Laser to be fired.
- b. The laser system will be treated like a direct fire line-of-sight weapon, such as a rifle or machine gun. The same hazard control precautions will be taken in order to provide a safe operating environment.
- c. All Soldiers who operate or supervise the operation of laser equipment will be laser safety certified IAW DA Pam 385-63, paragraph 18-1d.
- d. Operators and supervisors of laser equipment will be thoroughly familiar with this chapter.
- e. The senior laser safety certified soldier directly involved in the operation of any laser equipment will be referred to as the Laser Safety Officer (LSO). All LSO's will be in the grade of E-6 or above.
- f. The LSO of off-post units must report to the Command Safety Office prior to laser operations to discuss and verify control procedures, safety precautions and knowledge of the system to be operated.

### **H-3. DEFINITIONS OF KEY TERMS.**

- a. Light Amplification by Stimulated Emission of Radiation (LASER). Includes any device that can be made to produce or amplify electromagnetic radiation in the X-ray, ultraviolet, visible, and infrared or other portions of the spectrum by the process of controlled stimulated emission of photons.
- b. Infrared Pointer (IR). A low power laser device operating in the near infrared light spectrum that is visible with light amplifying night vision devices.
- c. Types of Lasers. Laser classification is determined by laser output parameters.

*NOTE: IAW U.S. Law, all lasers have a fixed safety label that identifies the laser's specific class. Contact the Radiation Safety Officer at the Command Safety Office immediately if you receive a laser without this warning label.*

(1) Class 1 Laser. Emits levels of laser radiation which are not hazardous under any operation or viewing condition.

(2) Class 2 Laser. This laser beam is not considered hazardous for momentary exposure occurring in an unintentional viewing situation. The Class 2 Lasers are marked with a yellow caution label that warns against intentional staring into the direct laser beam.

*\*NOTE: Current safety policy as established by the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) is that Class 2 Lasers and higher will not be employed during force-on-force training.*

(3) Class 3a Laser. This visible laser beam is not considered hazardous for momentary exposure occurring in an unintentional viewing situation, but which is potentially hazardous if the direct beam is viewed with magnifying optics such as binoculars. These lasers are marked with a yellow caution label that warns viewing the direct beam through magnifying optics.

(4) Class 3b Laser. This laser includes both continuous and pulsed ultraviolet, visible and infrared lasers which are potentially hazardous if the unprotected eye views the direct beam or specularly reflected beam. These lasers are marked with a red danger label warning against direct eye exposure to the laser beam. Control measures must prevent inadvertent exposures of personnel to the direct beam or specular reflections.

(5) Class 4 Laser. This laser is a high-powered laser system which is hazardous to the eye if the direct beam or specularly reflected beam is viewed. Additionally, these lasers may produce hazardous diffuse reflections and or constitute a skin or fire hazard. Control measures for outdoor use of such lasers include exceptionally strict control over large distances to preclude inadvertent exposure of personnel.

#### **H-4. EMPLOYMENT OF LASER SYSTEMS WITHIN THE TRAINING AREA.**

a. Force-on-force training with laser systems (to include infrared pointers) involving personnel without laser protective eyewear is limited to Class 1 systems only. The Garrison Safety Office will evaluate lasers of a higher class that have safety features that permit Class 1 type performance on a case-by case basis for force-on-force use.

b. All lasers may be used for live fire training and for other training when there are no personnel in the beam path providing safety requirements established in AR/DA Pam 385-63 are met.

c. For laser operations with Class 2, 3a, and 3b systems:

(1) Laser devices will only be used on ranges approved for such use.

Additionally, operators and supervisors of laser equipment will be thoroughly familiar with applicable references identified in paragraph H-1 above.

(2) Laser safety certification is required for all personnel who operate or supervise the operation of Class 3a and 3b laser systems.

(3) Intrabeam viewing of either direct or reflected beams from a flat mirror-like surface (specular reflection) from lasers can expose the unprotected eye to a potential hazard and must be prevented.

(4) Personnel will not deliberately view direct laser radiation with optical instruments within the NOHDO (Nominal Optical Hazard for Direct Observation). The resulting amplification of laser energy significantly increases the probability of eye injury.

(5) Night vision devices (NVDs) will not be used for laser eye protection. These devices are not "cover-all" goggles. Laser energy may enter the eye from reflections or from around the tubes. These devices can be bloomed (white out), damaged, or destroyed from exposure to laser radiation.

(6) Extreme caution will be taken when using a target-designating laser in conjunction with ordnance delivery aircraft (fixed- and rotary-wing). The potential exists for the on-board laser seeker to lock onto the designator or its radiated energy (i.e., beam or reflected beam) instead of the target. The following procedures will be followed to reduce this risk:

(a) The pilot of the firing aircraft shall acknowledge the location of the designator and the target area, before releasing munitions.

(b) Approach paths will be designated and briefed to both the designating and Forward Air Controller (FAC) personnel and the aircrews prior to conducting the mission. Aircraft approach paths will be planned to preclude crossing laser designator beams with the laser seeker. The laser seeker should intersect the designator beam well forward of the laser firing point, angling toward the target.

(c) Only mission essential personnel will be within the area of effects for the weapon employed from the designator and/or direct or reflected beam of the laser designator during operations.

(d) Munitions will not be launched or released on a heading toward the laser designator. See applicable technical manuals for recommended employment procedures.

(e) A Laser Safety Officer (LSO) will be designated for all operations involving the use of Class 2 and above lasers. The LSO must be staff sergeant (E-6) or above and laser safety certified.

#### **H-5. LASER INCIDENTS.**

a. Personnel suspected of experiencing potentially damaging eye exposure from laser radiation will be evacuated immediately to the nearest medical facility and undergo an eye examination. Pertinent medical guidance for such emergencies is available from the Walter Reed Army Institute of Research Detachment at Brooks AFB, DSN, 240-4620 or Commercial, (210) 536-4620. The expeditious examination and treatment of laser eye injuries is critical in minimizing loss of visual acuity.

b. Report laser overexposure incidents immediately to the Command Safety Office. Subsequent reporting will be IAW AR 385-11, AR 40-5, AR 385-40 and TB Med 524.

#### **H-6. LSO RESPONSIBILITIES.**

a. Before operating a Class 2 or higher laser, verify the following:

(1) The observation post or training area from which laser operations will be conducted is approved for laser use. If not, coordinate with the Installation's Range Control to develop the observation post or training area as a non-standard laser observation post or training area.

(2) Ensure that all laser operations are conducted IAW the Installation Range Regulation.

(3) Ensure that the laser beam terminates safely.

(4) Ensure that required warning signs and/or barricades are established during active laser operations IAW the Installation Range Regulation.

b. During laser operations, the LSO will:

(1) Give a laser safety briefing to all affected personnel. At a minimum, this briefing will cover associated hazards with the laser(s) employed, range limits for laser employment and safety measures in place to prevent eye damage. This briefing may be delegated to the unit chain of command.

(2) Verify that laser operators have been trained on the equipment they will be operating.

(3) Ensure laser operators do not lase specular surfaces. (e.g., mirrors, vehicle windows, standing water, etc.).

(4) Enforce prescribed vertical and horizontal buffer zones (two mils for a stable platform and five mils for an unstable platform).

(5) Ensure optical instruments not specifically treated with a laser safety coating are not used to observe targets being lased (M22 binoculars and other optical devices with protective laser coatings may be used).

(6) Verify that all laser exit ports are covered when the laser is not in use.

(7) Immediately report all laser-related incidents and injuries through the chain of command and Range Control.

#### **H-7. LASER OPERATING PROCEDURES.**

a. Range Control Procedures: A unit desiring to operate any laser device must:

(1) Submit a request to Range Control in RFMSS designating the laser location, time of operation and target area location IAW Chapter 2 of this regulation.

(2) The current Training Bulletin and a unit Laser Safety SOP on hand at the training facility during training.

(3) Laser ranges must maintain continuous radio communication with Range Control.



(4) Warning signs must be used to prevent personnel from entering a laser firing area. Free standing laser warning signs will be picked up from Range Control and placed as directed.

b. Laser Range. The LSO will ensure:

- (1) A laser safety briefing is given to all affected personnel.
- (2) All operators are familiar with laser equipment being operated.
- (3) The laser operator will fire only at selected targets within the laser safety fan.
- (4) Reflective surfaces (mirrors, vehicle windows, etc.) have been removed.
- (5) The laser is being operated on laser-approved ranges.
- (6) Prescribed vertical and horizontal buffer zones are enforced.
- (7) Communication is established with any personnel down range.
- (8) All exit port covers are replaced when the laser is not in use.
- (9) All laser-related accidents/injuries are immediately reported to Range Control and identified as a laser related accident/injury.
- (10) The impact area is never entered, i.e., to enhance targets or for any other reason.

#### **H-8. EYE PROTECTION.**

a. The hazards from Class 2 through Class 3b lasers is limited to the unprotected eye of individuals within the direct laser beam or a laser beam reflected from specular (mirror-like) surfaces. Serious eye damage, with permanent impairment of vision, can result of unprotected personnel exposed to the laser beam.

b. Those who must be in the target area, such as moving target operators or test personnel, will wear laser protective eyewear with curved protective lenses during laser firing. This eyewear must be approved for the specific laser device in use.

c. Personnel viewing the impact area with optical instruments (e.g., binoculars, telescopes) face an increased risk of laser eye injury. Optics without a laser filter is not permitted on the ranges to view targets which have been enhanced with retro reflective tape or reflectors. The Unit LSO will check for retro reflective tape on targets prior to lasing. If target enhancement was accomplished, the LSO will ensure the targets are cleared of retro reflective devices prior to vacating the range.

d. Class 3 and higher lasers will never be employed in two-sided, force on force exercises where personnel will be in the direct beam path of the laser.

e. Current requirements also prohibit employment of Class 2 lasers in force on force training unless all participants wear approved laser safety eye protection.

#### **H-9. BEAM REFLECTIVE HAZARDS.**

a. Flat (mirror-like) objects having a vertical or near vertical surface must be removed from the target area.

b. Standing snow and water. Specular reflection from standing snow or water presents a hazardous situation to ground personnel located along the azimuth of the

beam path. These reflections do not present a hazard to personnel in aircraft outside of the restrictive airspace above the range.

#### **H-10. BEAM DESIGNATED LIMITS.**

a. Beam Termination: During laser operations, no hazardous portion of the laser beam will extend beyond the controlled target areas (e.g., outside the target area). This will be done by construction of the target or choosing a natural target, the size of which will intercept the laser beam and provide an additional buffer zone. Targets will be located in such a manner that they have a backstop, i.e., a mountain, ground or dense tree line.

b. Buffer Zone: The extent of the buffer zone depends upon the aiming accuracy of the laser device. A stable platform requires only two (2) mil buffer zones; an unstable platform (e.g., resting the laser device on a rucksack) requires a five (5) mil buffer zone.

c. To prevent potential hazards to unprotected personnel from diffused reflections, laser devices should not be fired at any surface located within a range of 1000 meters from the laser. Precautions such as the removal of brush and trees necessary to prevent this must be taken.

d. AR 385-11 and AR 40-5 outline general laser radiation safety requirements. A laser safety orientation will be given to all personnel who use or work with laser devices to include an explanation of hazards and safety requirements before they commence laser operations.

#### **H-11. FORCE ON FORCE LASER USE.**

a. Purpose. To identify eye-safe lasers for use during force on force exercises.

b. Units may use the following lasers during force on force operations. They are classified as class one systems.

- (1) AN/PAQ 4B/C/A.
- (2) AN/PVS 6 (MELIOS).
- (3) GLPS.
- (4) AN/PEQ 2A (Low Power Laser and Illuminator Only).

c. Units may use the following lasers in live fire areas only. Do not use these lasers during force on force exercises.

- (1) AIM 1 series (D, DLR, EXL, MLR).
- (2) LPL 30.
- (3) GCP 1.
- (4) ACP 2.
- (5) MICROLASER FLASHLIGHT.
- (6) Carbine Visible Laser (CVL).
- (7) AN/PEQ 2A (High Power Laser and Illuminator).
- (8) Boresight Laser.
- (9) MMS LRF/D (OH58D Laser Range Finder/Designator).

## **H-12. USE OF AIRBORNE LASERS.**

- a. West Point controls the restricted airspace R-5206 and SFC-5000 MSL when active or NOTAM to be active, therefore, all lasing will terminate at the ground within a controlled area. For shallow slant angles, the beam should be terminated against a natural terrain feature, such as a hill or ridge.
- b. Aircraft will fire only from authorized firing points and at designated targets.
- c. Laser firing is not permitted when standing water or reflective material is observed within 30 meters of the target area.
- d. For guidance on specific systems/lasers, personnel must refer to appropriate manuals for that system.
- e. Check thermal target periodically for exposed surfaces. Such surfaces may reflect the beam towards the firing line.
- f. Based on availability of airspace and terrain, short notice/no notice will be cleared thru Range Control for Laser Operations via FM radio.

**H-13. MEDICAL SURVEILLANCE.** First Aid for Eye Injury from Laser Energy. First aid should not be attempted for damage produced by laser energy to the eye; therefore, prompt reporting to a medical treatment facility is imperative for known or suspected eye injuries constitute an **“URGENT”** MEDEVAC. MEDEVAC procedures can be found in each West Point Training Bulletin and in chapter three of this regulation. Immediate examination will be given when there is known or suspected laser overexposure.

## **APPENDIX I LIVE FIRE RANGE PACKET REQUIREMENTS.**

### **I-1. SCHEDULING AND PLANNING.**

- a. Live Fire Safety Packet. The Range Safety Officer approves and maintains the Live-Fire Safety Package (LFSP). A LFSP is always required whenever a unit conducts any training that includes fire and maneuver, deviates from standard firing range SDZ's, stress fire, close quarters Battle or engaging in any type of steel target training.
  - (1) Live Fire Exercises frequently involves preparation of nonstandard surface danger zones to meet the training objectives of the unit(s). Units must submit a detailed range request accompanied by the exercise plan not less than five weeks prior to the proposed exercise.
  - (2) Range Control will evaluate the proposed exercise. Requesters must submit a copy of the following information:
    - (a) A detailed plan of maneuver and fire support.
    - (b) The number and type of weapons and munitions to be used, to include chemical and pyrotechnics.
    - (c) Composite Risk Management (CRM) worksheet.
    - (d) Concept Sketch: (illustrated document includes firing positions, target location, and movement of personnel).
    - (e) Scenario: includes a step-by-step listing of engagements by weapon and ammunition.
    - (f) Number and type of resources required.

- (g) Location of supporting weapons.
- b. Overlays and Concept Sketch.
  - (1) Units conducting maneuver training will submit a legible copy of the training overlay. The overlay must be registered to a 1:25,000 scale map and include assembly areas, objectives, and routes used during the training.
  - (2) A concept sketch will be provided for live-fire training events other than standard firing on small arms ranges. This overlay will include at a minimum; target location, shooter location, and weapon or weapon system used to engage each target, one week prior to firing.
    - (a) Unit OIC's must ensure that weapon systems and ammunition for SDZ match scheduled events and conduct coordination with the Range Officer.
    - (b) Range Officer must approve changes to a SDZ overlay before implementation.
    - (c) SDZs are required for any laser that is not eye-safe.
- c. Live Fire Exercise (LFX) Set-Up Day. The first scheduled day on a LFX range is a "Set Up" day and is a non-firing day dedicated to maintenance and setting up the range. Units should not plan to live fire, but may plan for a final proofing of the range on the Set Up day. Range Operations must observe final validation prior to any live-fire training being conducted.
- d. Gate guards: Gate guards must have continuous and reliable communication at all times. LFX sites often contain access roads to adjacent live-fire areas. When this occurs, OIC's are required to maintain communication with adjacent live-fire areas.
- e. Live Fire Exercises frequently involves preparation of nonstandard surface danger zones to meet the training objectives of the unit(s). Units must submit a detailed range request accompanied by the exercise plan not less than five weeks prior to the proposed exercise.

## I-2. COORDINATION.

- a. Range Control personnel will review all exercise packets and provide the unit OIC with comments on areas requiring additional clarification or correction. If there are no areas needing additional clarification or correction, one copy of the exercise plan, signed by the Range Operations will be returned to the unit.
- b. Creation and use of temporary impact areas is authorized. These areas must be coordinated with Range Control during the early stages of planning.
- c. The following conditions/requirements exist when establishing temporary impact areas:
  - (1) The following ammunition **CANNOT** be fired into temporary impact areas: 30mm HE, 40mm HE and all HEAT ammunition.
  - (2) Round count is required for all indirect fire.
  - (3) All ordnance that did not function as intended will be located, marked and reported to Range Control. Range Control will notify EOD for disposal/removal of ordnance.
  - (4) Lost rounds (i.e., 105mm HE) require the using unit to conduct a surface clearance operation of the entire temporary impact area (surface danger zone). Procedures for the conduct of surface clearance are available from Range Control.

(5) The RSO will provide written certification that all rounds have been accounted for and functioned as designed to Range Control upon completion of exercise. A sample format is a Figure I-1.

(6) Users will not be relieved of responsibility or cleared until the above conditions and or requirements have been satisfied.

**Figure 1-1  
(SAMPLE MEMORANDUM)**

\_\_\_\_\_  
**(Office Symbol)**

\_\_\_\_\_  
**(Date)**

MEMORANDUM FOR DPTMS, Range Control Branch

SUBJECT: Certification Statement

1. On **(DATE)** \_\_\_\_\_, **(UNIT DESIGNATION)** \_\_\_\_\_ conducted a Live Fire Exercise in the vicinity of **(training area and grid coordinates)** \_\_\_\_\_.

2. The following ordnance and quantities were expended and observed during the exercise:

<b>DODIC</b>	<b>QUANTITY</b>
_____	_____
_____	_____
_____	_____
_____	_____

3. The following ordnance did not function as designed:

<b>DODIC</b>	<b>QUANTITY</b>
_____	_____
_____	_____
_____	_____
_____	_____

4. The ordnance was located and marked at **(grid coordinates)** \_\_\_\_\_ and reported to Range Control on **(date/time)** \_\_\_\_\_. The ordnance was subsequently removed by EOD on **(date)** \_\_\_\_\_. **(Paragraph not required if all ordnance functioned as designed).**

5. The purpose of this memorandum is to certify that all ordnance listed in paragraph 1 above was observed/accounted for or functioned as designed.

\_\_\_\_\_  
**(Signature of OIC)** \_\_\_\_\_ **(Rank and Branch)**

\_\_\_\_\_  
**(Printed Name of OIC)**

\_\_\_\_\_  
**(Unit Designation and Telephone Number)**

**APPENDIX J.  
WATER OPERATIONS.**

**J-1. PURPOSE:** This appendix identifies DA and local standards, requirements and policies for safe conduct of water operations.

**J-2. DEFINITIONS.**

a. Water Operation. Tactical water crossings by vehicle, boat, pontoon bridges, rafts and foot, over any body of water such as a stream, river, lake, pond, or swimming pool used to conduct water operations.

b. Rescue Personnel. Red Cross certified lifeguard.

c. Safety Boat. Designated, powered, rescue boat, totally separate from the operation.

d. Life Line. A 3/8" or 1/2" buoyant rope/line extended from shore to shore.

e. Rough/Fast Water. Water moving greater than five feet per second.

f. Calm/Slow Water. Water moving at five feet per second or less.

g. Type (I) Vest. Inherently buoyant life preserver having at least 22 lbs of buoyancy and is designed to turn over 95 percent of the population so that they float in a vertical, slightly backward, position in the water and will upright an unconscious victim. NSNs 4220-00-542-2110, 4220-00-783-6609, and 4220- 00-200-0538 (can be used for rough/fast or calm/slow water).

h. Type (V) Vest. Inherently buoyant life preserver having at least 15.5 lbs of buoyancy. The pads are arranged to provide great freedom of movement. It is used in training/work situations. However, it provides basic flotation in calm water for a conscious person until a rescue can be accomplished. NSN 4220-00-555-9006 (used ONLY for calm/slow water).

i. Operation Commander. The person is designated as the OIC of the operation, activity or exercise.

j. Operation Safety Officer. The person is designated as the Safety Officer (SO) for the operation. (The Operation Commander may also be Operation Safety Officer).

k. Medic. Personnel with a primary, secondary or additional MOS 91B or qualified in Emergency Medical Treatment (EMT).

l. Prior. When the term "prior" is used, it indicates a minimum time frame of five weeks.

**J-3. GENERAL.**

a. Whenever possible, for all operations, a type (I) vest should be used. When the type (I) vest is used in calm/slow water additional safety precautions (life line, safety boat, rescue personnel) are not required. However, when the type (I) vest is used in rough/fast water, the additional safety precautions are required.

b. The Type (V) vest will ONLY be used in calm/slow water. When the type (V) vest is used, additional safety precautions are required.

- c. Water flow (rough/calm) and appropriate precautions will be determined by the CSO and Operation Commander during the site evaluation.
- d. Participation by non-swimmers in an operation will be determined by the CSO and Operation Commander during the site evaluation.
- e. Operations will be conducted only at approved sites.
- f. The matrix at Figure J-1 is a quick reference/guide for safety requirements for water operations.
- g. All participants in water operations must successfully complete a water survival test as outlined in FM 21-20 or TC 21-21.
- h. The boat operator cannot be considered as one of the rescue personnel. They are two separate requirements.
- i. People have been known to drown in three feet of water due to panic or striking their head and becoming unconscious. Extra caution must be taken to ensure the safety of Soldiers.

#### **J-4. BASIC REQUIREMENTS.**

- a. Prior to any operation a representative from the CSO and the Operation Commander must conduct a site and operation evaluation (to include a hazard analysis) to determine existing or expected hazards/problems.
- b. All water operations must be scheduled with Range Control.
- c. All personnel participating in the operation must be briefed by the Operation Commander on the hazards associated with the operation and the appropriate safety precautions and procedures.
- d. Participating personnel will have trousers on the outside of boots (not bloused) at all times.
- e. Operation plan/SOP/LOI will include accident prevention measures, rescue procedures, and first aid techniques related to the specific operation. A detail written Risk Management Plan is required. This must be included in the plan for the exercise, and a copy furnished to CSO.
- f. When additional safety precautions are required, there must be two rescue personnel and one medic on site. The rescue personnel will be stationed in the designated rescue boat. Rescue personnel must possess a valid Red Cross Certification Card. The medic must be equipped with resuscitation equipment.
- g. When additional safety precautions are required, a dedicated motorized safety/rescue boat equipped with a minimum of a life ring with 50' floating rope, boat hook, blanket and an anchor will be located approximately 50 to 100 feet downstream of the operation with motor running in neutral gear. The boat operator must wear a type (I) vest.
- h. Personnel operating the motorized safety boat must be certified to operate the motor. Training and certification must be annotated on the individual's DA Form 348, Equipment Operator's Qualification Record.

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- i.* Rescue personnel and medics must be briefed on the hazards of the operation, the possibility of hypothermia and the necessity for proper, rapid rescue.
- j.* The life line must be located approximately 200 feet downstream from the operation and securely anchored. Anchor points have been installed at approved sites on the Black River.
- k.* Adequate lighting (as determined during site evaluation) to accomplish rescue operations must be available and properly placed when conducting night operations (i.e., flood lights).
- l.* All participants in the operation must wear a flotation device (Type (I) or (V) vest).
- m.* When using aircraft for the operation (helocasting and or parachuting into water), use additional safety precautions as required. In addition, radio communication between the aircraft, safety rescue boat and ground crew must be established and maintained (method of communication will be identified during site evaluation).
- n.* All vehicles used for swimming operations must be prepared and operated IAW the applicable vehicle operators manual.
- o.* When conducting vehicle swimming operations, additional safety precautions are required.
- p.* Forging operations will be accomplished IAW the applicable vehicle operators manual.

**J-5. MODIFICATIONS/DEVIATIONS.** During the site and operation evaluation conducted by the Operations Commander and CSO, the above requirements will be applied and discussed. Any requests for modification or deviation of the requirements must be submitted through the Operation Commander's Chain of Command, through the CSO for comment, and to the first General Officer in the Chain of Command for written approval.



FIGURE J-1

**SAFETY REQUIREMENTS MATRIX**

	Rescue Personnel	Boat Safety	Medic	Life Preserver	Comm	Diver	Safety Equip	Vehicle Pre-Dip	Rope Insp.
Small Boat/Raft	X	X	X	X	X		X		
River Crossings	X	X	X	X	X		X		
Helocasting	X	X	X	X**	X		X		X
Parachuting Into Water	X	X	X	X**	X		X		
Swimming of Vehicles	X	X	X	X	X	X*	X	X	
Two-Man Recon	X	X	X	X	X				
Engineer Bridging	X	X	X	X	X		X		
Rope Bridge	X	X	X	X	X		X		X
Rope Drops	X	X	X	X	X	X*	X	X	
Slide for Life	X	X	X	X	X	X*	X		X

\*Every effort should be made to use a diver. When not possible/feasible, Red Cross certified lifeguards can be substituted.

\*\*Approved Inflatable Type Vest.

NOTE 1: The requirements indicated on the MATRIX reflect those as “when required”.

NOTE 2: If using divers become an option, the requirements of FM 20-11 Military Diving must be followed. The requirements are not waverable. If a diver is to be used as a lifeguard, it must be understood that all divers are NOT certified lifeguards.

FIGURE J-1

**APPENDIX K RAPPELLING OPERATIONS.**

**K-1. GENERAL.**

a. Rappelling is considered high-risk training and therefore requires close supervision.

b. Weather conditions must be considered and experience level and physical condition of participants must be considered.

**K-2. BASIC REQUIREMENTS.**

a. All rappelling operations must be scheduled with Range Control.

b. Prior to any operation, a representative from the CSO and the Operation Commander must conduct a site and operation evaluation. All ropes and equipment to be used must be inspected by a Rappel Master, Operation Commander, Unit Commander or CSO representative prior to use.

c. All personnel participating in the operation must be briefed by the Operation Commander or Operation SO on the hazards associated with the operation, and the appropriate safety precautions and procedures.

d. Prior to personnel participating in any operation above 35 feet, they must demonstrate their abilities and confidence on a rappel tower, building or hill less than 35 feet in height. They should make three rappels at approximately 35 feet.

e. Operation plan/SOP/MOI will include accident prevention measures, emergency procedures and specific details and responsibilities related to the operation.

f. Each rappel point will have a primary and secondary anchor.

g. All loose obstacles must be removed from the rappel point/area.

h. Rappel ropes must reach bottom of landing platform with at least 10 feet of excess.

i. All rappel operations will be done with two rappel ropes.

j. Never allow ropes to run over sharp or jagged edges.

k. Gloves must be worn when rappelling.

l. The Operation Commander and/or rappel instructor must be qualified in the operation. Examples of qualified personnel are: Air Assault School, Ranger School, Military Mountaineer Course, Rappel Master Course, etc.

m. The Operation Commander must ensure that an appropriate number of instructors and assistant instructors are present for the operation and the number of participating personnel.

n. Horseplay and unsafe acts will not be tolerated at any time.

o. Instructors are responsible to set up rappel lanes, hook rappellers onto two rappel ropes, coach rappellers, conduct classes on tying of swiss seats, inspect swiss seats and gloves, and control access to rappel point.

p. Rappellers and belay personnel will sound-off with "ON RAPPEL" and "ON BELAY" to signal each other to be alert. The belay person will have their eyes on the rappeller at all times.

q. Rappel operations from helicopters must specifically be reviewed by the Installation Aviation Safety Officer.

**K-3. MODIFICATIONS/DEVIATIONS.** During the site and operation evaluation conducted by the Operation Commander and the CSO, the above requirements will be applied and discussed. Any requests for modification or deviation must be submitted through the CSO for comment and through the Operation Commander's Chain of Command up to brigade level for approval. \* *Note: Immediately notify Range Control in the event of any unsafe conditions on the tower itself, this would include structural repairs.*

## **APPENDIX L CONFIDENCE AND BAYONET ASSAULT COURSES**

**L-1. PURPOSE.** This appendix identifies DA and local standards, requirements and policies for safe conduct of the confidence and bayonet assault courses.

### **L-2. CONFIDENCE COURSE.**

a. References.

(1) TC 3-22.20 Army Physical Readiness Training, APPENDIX E.

(2) TRADOC Regulation 350-6. Appendix E Confidence Obstacle Courses (Best guidance for execution and safety of obstacles).

(3) West Point Confidence Course SOP, available in the Confidence Course Range Book available from Range Control.

b. The confidence course is a voluntary training program designed to build teamwork and esprit-de-corps.

c. All safety restrictions and equipment identified in the SOP are mandatory.

d. The uniform for the conduct of the course should be conducive to this dangerous physical event. The use of field uniform elements such as Kevlar helmet and load bearing equipment greatly increases the risk. Use of field uniform components is non-standard and requires submission of a Risk Management Plan approved by the first O-6 in the chain of command.

e. The use of the confidence course during wet/freezing snow weather is considered non-standard and requires submission of a Risk Management Plan approved by the first O-6 in the chain of command.

### **L-3. BAYONET ASSAULT COURSE.**

a. References.

(1) FM 3-25.150 Chapter two, Combatives.

(2) West Point Bayonet Assault Course SOP, undated, (available from Range Control).

b. The Bayonet Assault Course is considered a “specialty facility” supporting unique army training requirements. The bayonet assault course provides the commander a unique training opportunity by allowing Soldiers to employ rifle-bayonet fighting skills under simulated combat conditions.

c. All safety restrictions and equipment identified in the SOP are mandatory.

d. The uniform for the conduct of this course should be conducive to this dangerous physical event. Use of field uniform components is standard; the use of non-standard uniform requires submission of a Risk Management Plan approved by the first O-6 in the chain of command.

e. The use of the Bayonet Assault Course during wet/freezing snow weather is considered nonstandard and requires submission of a Risk Management Plan approved by the first O-6 in the chain of command.

**APPENDIX M.**

**NBC TRAINING FACILITY AND MASK CONFIDENCE COURSE.**

M-1. PURPOSE. To establish the SOP and responsibilities for the use of the Installation NBC Training Facility, located vicinity of WL75967738.

M-2. GENERAL. The NBC Training Facility is available for use for the following training:

- a. Mask confidence exercise.
- b. Crew drill for all weapon systems.
- c. Chemical/Biological survey operations.
- d. Operation of vehicles in an NBC environment.
- e. Approved collective training tasks.

**M-3. RESPONSIBILITIES.**

a. Range Control.

(1) Overall responsibility for scheduling and maintenance of the NBC Training Facility.

(2) Inspection of units while training at the NBC Training Facility.

(3) Inspection of the facility after each use.

b. Training Units.

(1) Units wanting to use the facility will schedule its use IAW Chapter 2 two of this regulation.

(2) A memorandum signed by the Bn or separate Company Commander certifying that personnel are NBC school trained and qualified to perform the duties of OIC or NCOIC will be provided to Range Control. The OIC must attend the range safety orientation briefing.

(3) Units will pick up from Range Control the keys to the NBC Training Facility and SOP (no earlier than 24 hours prior to use).

(4) Primary means of communication with Range Control will be by FM Radio.

To occupy, open and close the NBC Facility, contact Range Control at 46.70/Handheld Ch3 primary control frequency.

**WARNING: Failure to comply with communication requirements is a violation of this regulation and terminates facility use until such time as communication is restored and maintained.**

(5) Units will provide all necessary items for training in the NBC Training Facility as outlined in paragraph M-5 below.

(6) Units will ensure that a medically trained person (with assigned protective mask), with a dedicated vehicle, is on location for the duration of the training exercise.

(7) Units will ensure strict adherence to procedures before, during and after each use, including screening of personnel with respiratory or heart ailments, personnel who wear contact lenses, etc. (see paragraph 7 below).

(8) Upon completion of the exercise, units will ensure that the facility is properly aired and policed including the surrounding area.

**M-4. EQUIPMENT AND SUPPLIES.**

Units conducting training at the NBC Training Facility will ensure that the below listed items are available during training. This list is a minimum requirements and can be added to.

- a. CS capsules.
- b. Improvised generator (#10 can).
- c. A minimum of one protective mask for each different size.
- d. Spare repair parts.
- e. Five gallons of water per 20 Soldiers.

**M-5. PERSONNEL REQUIRED RUNNING THE EXERCISE.**

a. An NBC school trained officer/NCO, or officer/NCO who has completed the NBC Defense Course including training on first aid for riot control agents will be present during the mask confidence exercise as OIC or NCOIC (memorandum provided to Range Control). If necessary, the OIC/NCOIC may also serve as the instructor and his duties will include:

- (1) Ensuring that communications are established with Range Control.
- (2) Supervising the preparation of the facility, the buildup of the concentration of agent for the exercise, and the conduct of the exercise.
- (3) Ensuring facility ventilation during and after the exercise.
- (4) Briefing and supervising the instructor and assistant instructors on safety requirements.

b. The instructor will:

- (1) Check the fit of masks worn by assistant instructors.
- (2) Inspect each person's mask for proper fit.
- (3) Brief personnel on the characteristics and effects of the agent and on the procedures to be followed during the exercise.
- (4) Conduct the exercise or delegate duties to assistant instructors.
- (5) Keep exit doors of the facility clear at all times.

c. Assistant instructors are required to regulate the flow of personnel into and out of the facility. Range Control recommends one assistant instructor per ten Soldiers in the facility. Additional assistant instructors will guide personnel as they enter and leave the facility.

**M-6. SAFETY PRECAUTIONS.**

a. The training exercise will be conducted only under the supervision of a safety qualified NBC School trained officer/NCO or MOS qualified who has completed the NBC Defense Course, and has received training in the characteristics, capabilities and first aid for and training applications of CS.

*b.* Only CS in capsule form may be used in the facility. CS grenades or powder WILL NOT be used in the facility.

*c.* Before being exposed to CS, Soldiers with respiratory conditions (such as a history of asthma), cardiac conditions or severe facial acne or any active dermatitis will be referred to a medical officer for an evaluation of their ability to undergo the training without undue risk. Pregnant Soldiers are prohibited from exposure to CS.

*d.* The OIC/NCOIC and instructors must consider the possibility of heat stress when and if MOPP is worn during training. \*NOTE: Wearing MOPP (i.e., chemical protective over garments are encouraged during the mask confidence exercise. The will make the training more realistic.

*e.* Wearing contact lenses while masked is prohibited.

*f.* If medical assistance is required at the NBC Training Facility, use the radio FM 46.70/Handheld Ch3 or a landline, (845) 938-3930.

#### **M-7. PROCEDURES.**

*a.* Facility Preparation. The improvised generator, a candle and CS capsules are used to set up a concentration of agent in the NBC Training Facility. Ten CS capsules should be sufficient to establish the initial concentration. Normally, one additional capsule placed on the generator as each ten Soldiers pass through the facility will maintain the agent concentration.

*b.* Conduct of the Exercise. The specific procedures will vary according to the training objectives, but will always include a briefing on the characteristics and effects of the agent and the actual procedures that will be used and a check of the fit and function of the protective mask. Harassing Soldiers in the facility is prohibited; all procedures must be based on training and safety principles.

*c.* When Soldiers depart the facility, they should be directed and guided to face into the wind, upwind from the facility and instructed to remain well spaced and to let the wind decontaminate them. They should be warned not to rub their eyes or to scratch irritated skin areas. Airing out is the principle method of decontamination, water may be used in case of gross contamination.

*d.* When vehicles are used, both facility doors will be opened. Once the vehicle is inside, vehicles will be turned off and the facility will be aired out prior to closing the doors. Upon completion of the exercise, facility will be ventilated prior to operating the vehicle. If vehicle is required to idle, exhaust extenders will be used. All vehicles, regardless of size, require two ground guides when entering or exiting the facility.

*e.* Sufficient time for airing out must be allowed before contacting Range Control for a clearance.

#### **APPENDIX N. AMMUNITION/EXPLOSIVES (A&E) - CONTROL AND HANDLING.**

**N-1. GENERAL.** Ammunition control and handling is a unit responsibility and will be under the direct supervision of a competent person thoroughly familiar with ammunition

and explosive standards, as outlined in this Appendix. The safeguard of ammunition used on West Point will receive maximum command emphasis at all echelons.

**N-2. RANGE AMMUNITION ISSUE POINTS.** Some live fire ranges have ammunition issue points. Ammunition can be issued at these or other unit designated points that are in compliance with ammunition standards. These ranges have specific storage requirements and limitations that are found in the Range Packet and must be complied with.

a. Assignment/Use. Range Ammo Issue Points are provided automatically with the assignment of ranges. Issue points will be policed for expended casings, metal links, packing materials and trash on a daily basis. The ROIC is totally responsible for ammo point organization and security.

b. Ammunition Supply Points (ASP). The following policies will be strictly adhered to at the range ammunition issue points.

(1) ASPs will be located not less than the following distances from:

(a) Post boundaries – 381 meters (1250 feet).

(b) A refuel - resupply point - 300 meters (985feet).

(c) Non-ammunition related troop tentage and operations.

(d) Public Traffic Route (PTR) distance is the minimum permitted for troops in training, IBD is preferred.

(e) (DA Pam 385-63 Para3-2d) PTR distances as calculated from chapter five of DA Pam 385-64 are the standard. The following is a good rule of thumb for appropriate classes of A&E:

i. - HD 1.1 = 229 meters (750feet).

ii. - HD 1.2 = 153 meters (500feet).

iii. - HD 1.3 = 66 meters (215feet).

iv. - HD1.4 = 31 meters (100feet).

(2) Ammunition will be stacked by type and lot number to facilitate inventory and inspection.

(3)Pyrotechnics, HE and illumination rounds will be segregated from other types of ammunition on ammo points to the maximum extent possible.

(4) Ammunition or boxes of ammunition will be stacked on at least three inches of dunnage.

(5) Boxed ammunition will not be unpacked and left exposed to the weather for a lengthy time. Ammunition should not be broken down until ready for use or vehicle uploads.

(6) Ammunition should be protected from the weather with the use of tarps, plastic or an appropriate shelter. Stacks of ammo will be stable to prevent damage.

(7) All rocket and guided missile nose-ends will be pointed in the same direction and toward an area which offers the least exposure to personnel and property in the event of fire, explosion or premature propellant ignition.

(8) Explosive initiating devices will be segregated from other types of ammunition to the maximum extent possible.

(9) Shunting or safety clips will not be removed from any ammunition until ready to throw, load or explode.

(10) All ammunition residue and packing materials will be retained until the training event is complete. Do not dispose of any ammunition residue or packing materials on the range.

(11) Units will adhere to any special handling instructions on ammunition containers and in ammunition notices issued for that ammunition by the Post ASP.

### **N-3. AMMUNITION SECURITY.**

- a. Ammunition at ammo breakdown points will be guarded at all times.
- b. Guards will be responsible for ammunition security and fire prevention.
- c. Guards will not be utilized to perform duties that would distract them from the security mission. (e.g., upload/download vehicles, accompany trash to sanitary landfill)
- d. Guards will not use deadly force, unless in extreme situations.
- e. Range OICs will ensure that periodic ammo point checks are made.

**N-4. FIRE PREVENTION.** Personnel working with ammunition shall strictly adhere to the following:

- a. Matches or other flame/spark producing devices will not be taken into the ammunition point.
- b. Smoking will be strictly prohibited. Smoking areas will be established no closer than 15 meters (50 feet) from the ammunition point.
- c. Litter, packing materials, dunnage and dry vegetation will be collected daily and properly disposed of.
- d. Oily rags or other materials subject to spontaneous combustion will not be accumulated in A&E storage areas.
- e. Two each 10 B:C or greater fire extinguishers and other fire-fighting equipment as determined by the RSO will be readily on hand.
- f. All fire extinguishers will be inspected and sealed by qualified personnel such as the Fire Department. Fire extinguishers will be inspected daily by unit personnel and any extinguishers with broken seals or evidence of having been discharged, will be re-inspected and resealed by qualified personnel.
- g. If a fire is discovered in the grass or other combustible material surrounding the ammunition point, the guard or other person discovering the fire shall:
  - (1) Give the alarm this will call the Sergeant of the Guard.
  - (2) Do all that is possible to extinguish or control the fire until the fire fighting forces arrive.
- h. If it is discovered that boxes containing ammunition are smoking or burning, the person discovering this will give the alarm to call the Sergeant of the Guard and



evacuate all personnel in the area. Training unit personnel will not fight a fire when a Class V item is either smoking or burning.

*i.* Sergeant of the Guard instructions for fires in the Ammunition point. The Sergeant of the Guard will:

- (1) Ensure each point containing Class V has a fire fighting station.
- (2) Instruct the ammunition point guards to fight only combustible material fires at or near the point.
- (3) Instruct the point guards to give the alarm and evacuate the ammunition pads when Class V items are either smoking or burning and assemble at designated location.
- (4) Call Range Control, (845) 938-3039, when a fire is discovered.
- (5) Ensure one responsible person is dispatched in the direction from which the fire department is expected to come, to inform them of the location of the fire.

**N-5. ACCOUNTABILITY OF TRAINING AMMUNITION.**

- a.* Ammunition will be carefully inventoried when drawn from and on turn-in to the ASP.
- b.* Units will maintain an inventory of ammunition in the field ASP, range ammo points and at the Forward Arming and Refueling Point (FARP).
- c.* Ammunition losses will be reported immediately to Range Control.

**N-6. TRANSPORTING AMMUNITION.**

- a.* Ammunition will be transported IAW DA Pam 385-64 and WP Regulation 700-5.
- b.* Vehicles transporting ammunition will be inspected utilizing DD Form 626 before entering and departing the Installation ASP.
- c.* Vehicles transporting A&E during winter months will follow the West Point Severe Weather Classification system found in West Point Regulation 190-3. When road conditions are "Red" or "Black," tire chains will be used for all series of vehicles if the vehicle is authorized tire chains per the appropriate operator's manual. The vehicle will also be operated in four-wheel drive under these conditions if the vehicle is so equipped.
- d.* Compatibility requirements outlined in DA Pam 385-64 are applicable to transporting ammunition.
- e.* Security of ammunition in transit is a unit responsibility as outlined in AR 190-11.
- f.* Vehicles transporting ammunition are restricted to West Point road networks and will not be driven through a parked in a cantonment area or near a cantonment area unless specifically authorized by another West Point regulation or with the approval of the Garrison Commander.
- g.* POL products will not be transported with ammunition.
- h.* Ammunition will be properly secured to prevent shifting and/or loss.
- i.* Personnel will not be transported in the rear of vehicles hauling ammunition.
- j.* Ammunition will not be transported in POVs.

k. Vehicle drivers must possess qualifications to transport hazardous materials and have a HAZMAT stamp on their military driver license.

**N-7. REPORTABLE AMMUNITION MALFUNCTIONS.**

a. AR 75-1 defines a malfunction as: “The failure of an ammunition item to function as expected when fired or launched or when explosive components function during a nonfunctional test. Malfunctions do not include accidents or incidents that result from negligence, malpractice or situations such as vehicle accidents or fires. However, malfunctions do include hangfires or misfires as well as abnormal or premature functioning of explosive ammunition items.”

b. A unit experiencing a suspected ammunition malfunction will notify Range Control immediately.

**N-8. AMMUNITION SAFETY AND ACCOUNTABILITY INSPECTION CHECKLIST**

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

**DATE AND TIME:** \_\_\_\_\_

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

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

**OIC/NCOIC:** \_\_\_\_\_

a. General.

(1) If hazardous conditions present immediate danger to life and/or property damage, operations will cease immediately and will not be continued until the hazard has been eliminated.

(2) Whenever an ammunition point is closed by an inspector, an incident report is required.

(3) Inspection criteria contained herein is IAW the following references:

(a) AR 190-11.

(b) AR and DA Pam 385-64.

(c) AR 600-55.

(d) DA Pam 385-63.

(e) DA Pam 710-2-1.

(g) West Point Regulation 700-5.

b. Ammunition Safety: Army’s safety criteria and standards for operations involving ammunition and explosives (AE) will be IAW: DA PAM 385–64, AR 385–10, DOD Directive (DODD) 6055.9E and DODM 6055.09–M.

**Table 4-1. Range Inspection/Ammunition Checklist**

Ammunition Accountability Inspection (DA PAM 385-64, AR 190-13)

Range Facility: \_\_\_\_\_ Date: \_\_\_\_\_  
 Unit: \_\_\_\_\_ Inspector: \_\_\_\_\_

	Unit has ammunition NCO who is signed for all ammunition on hand and is systematically accounting (DA 3020-R) for the ammunition issued to individual firers. The DA form 5515 is used as a hand receipt from parent unit to subordinate units, from one supervisory level to another, or from one person to another. <b>(BN to CO, CO to PLT – NOT CO to CO or BN to BN).</b>
	Unit does not have excessive ammunition/explosives on hand.
	Ammunition is opened only as needed and ammunition on the range is for the authorized weapon systems.
	Each level that receives an issue maintains a copy for DA Form 5515.
	Ammunition is stored in a position, which minimizes the potential for ignition, explosion or detonation.
	Ammunition storage area is kept clear from flammable materials.
	Ammunition and dunnage are stored separately.
	Ammunition is covered and protected from the elements and sun, proper air circulation and off the ground (pallets).
	“NO SMOKING within 50 Feet” (DA PAM 385-64) and Restricted Area (AR 190-11) signs are posted.
	No evidence of personnel smoking within 50-foot radius.
	Two serviceable 10BC rated or better fire extinguishers present.
	OIC and RSO are on the range performing their assigned duties.
	Range Book and OIC responsibilities sheet-on-hand.
	Secondary means of communication on range.
	Unit level Risk Assessment complete, signed with residual risk level.
	Range Organizational Plan – (As per DA Safety Center Guidance)
	RSO safety briefing to firers and conduct of range to include fire commands and range orientation.
	Adequate lane safety personnel on range per event for both day and night training.
	Adequate safety measures for observing night and day firing.
	Concertina wire erected IAW current policies. THREATCON, Force Protection and physical security measures.
	Daily inventory of ammunition conducted by disinterested person.
	Unit briefs Soldiers on use and turn-in of all ammunition and conducts checks. No Brass and No Ammo.

Comments: \_\_\_\_\_  
 Range OIC Printed Name(s): \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Range RSO Printed Name(s): \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Ammunition NCO Printed Name(s): \_\_\_\_\_

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

**APPENDIX O. PW ENVIRONMENTAL DIVISION-ENVIRONMENTAL GUIDELINES.**

**These guidelines outline activities that have demonstrated a greater need for environmental review on this Installation**

**O-1. USE OF VEHICLES.**

a. Off Road Use: Use existing roads and trails to avoid unnecessary destruction of vegetation and soil erosion and to avoid leaving a "signature" visible to hostile aircraft.

b. Stream crossings and fording activities are authorized **only** at hardened water crossing sites.

c. Vehicle Washing.

(1) Wash all vehicles only at the Central Vehicle Wash Rack Facility. Clean water rinsing, only to remove dust, steam cleaning of engines or undercarriages can be done in motor pools equipped with functional oil/water separators. Soaps shall not be used in any circumstance as they emulsify oils and defeat the purpose of the oil/water separator.

(2) Vehicle washing in any open body of water (i.e., streams, ponds, lakes, and wetlands) is strictly prohibited.

**O-2. FIELD ACTIVITIES.**

a. Field Latrines.

(1) Units in training will use concrete vault field latrines.

(2) If field latrines are not accessible, portable latrines are available through PW Supply.

(3) Pit latrines, trench latrines and catholes are strictly prohibited.

b. Use of Water.

*\*NOTE: (H)=hardened shower building. A Record of Environmental Consideration (REC) is required.*

(1) Water Purification Points are located at the laundry/bath points. These and additional locations are listed below. Other locations will be approved on a case-by-case basis, as they require a more stringent review. A REC is required for all water purification operations. IAW NY State regulation, any release of backwash and brine water on site is prohibited. Backwash and brine water will be disposed of at a designated drop-off point. Unit shall be prepared to contain and haul fluids for disposal.

(2) Field Mess Operations are handled on a case-by-case basis and must have approval of the Environmental Division and Range Control (REC required).

c. Communication Wire: Upon completion of training both cable and/or wire shall be removed completely prior to unit release/clearance and turned-in to DOL.

d. Barbed, Ribbon and Concertina Wire: Upon completion of training, all wire will be removed from the field and, if serviceable, turned-in to DOL Supply & Services. Units that hand receipt wire from Garrison will return all serviceable wire to place of issue. Unserviceable Wire that cannot be reused shall be turned in to DRMO. Wire will be clean of stakes and tags.

e. Camouflage:

- (1) Absolutely no scrub brush, saplings, or trees will be cut under any circumstances without prior approval of the DPW Environmental Division.
- (2) Requirements for trees/logs are handled on a case-by-case basis and must have approval of the DPW Environmental Division and Range Control (REC required).

**O-3. HAZARDOUS/TOXIC MATERIALS.**

a. Used Oil, Contaminated Fuel, Cleaning Solvents and debris from cleaning (i.e., cleaning rags, absorbent pads).

(1) Used oil and contaminated fuel shall be disposed of only at designated storage tanks; no such fluids will be disposed of in the field. For used oil collection points and the contaminated fuel disposal point locations contact Environmental Division for assistance.

(2) Used oils are not to be mixed with other wastes such as fuel and/or cleaning solvents. Once chemicals are mixed together (even with water) they are no longer hazardous materials but are then treated as hazardous wastes.

(3) If field activity prevents use of cleaning solvent equipment or used oil/contaminated fuel collection points, the used solvent & POLs shall be segregated and identified, stored in five gallon containers and returned to the motor pool or contact DPW Environmental Division. Parts cleaning machines (solvent) are provided by contract for the motor pools by PW and are not deployed as unit TO&E. Solvents shall not be discharged into ground water.

(4) 100% of all M5 White Smoke Pots or any other residue from a Munition that is considered HW once detonated will be returned to the ASP Residue Yard.

b. Hazardous Materials/Waste Turn-In: Contact Hazardous Waste Manager at DPW, Environmental Division. :

- (1) Acids.
- (2) Pesticides/Chemicals.
- (3) Asbestos.
- (4) PCB's.
- (5) Batteries.
- (6) Used POLS (contaminated).
- (7) Paint/Thinners.
- (8) Unknowns.
- (9) Filter Elements.
- (10) Lead Dust.
- (11) Chemical Defense Equipment.
- (12) Training Kits.

c. Hazardous Waste Sites: Dumping Petroleum, Oil and Lubricant (POL) products or hazardous wastes along roads or in the field is a violation of Federal law. CID and the Federal Attorney's Office actively investigate such cases.

*d.* POL Refueling Points and Fuel Bladders.

(1) All re-fueling operation locations (i.e., TPUs, fuel tanks, bladders, five gallon cans etc.) require a Record of Environmental Consideration (REC). Units shall have spill kits on site to include: clear plastic bags, shovels and absorbent pads/materials.

(2) Re-fueling points and fuel blivets shall be located at least 150 meters away from wells and surface waters of any type. These operations will not be authorized in TA on account of potable water well field locations and high water table.

(3) Ground storage for POLs (i.e., fuel tanks, bladders, etc.) requires a polyethylene lined earthen berm great enough to contain 110% of all fluids or Installation approved containment device (REC required).

*e.* POL Spills.

(1) All spills are reportable no matter what size or volume. Drips and weeps are considered a spill and shall be reported.

(2) Any release is a spill (i.e., drips and weeps).

(3) All POL spills will be reported immediately to the Range Control, (845) 938-3930.

**O-4. SOLID WASTE.**

*a.* All ammunition residue and packaging must be returned to the ASP for processing and disposal. These materials are not authorized to be disposed of in range dumpsters. The wood dump will not accept ammunition boxes which have not been processed and certified by the ASP residue turn in point.

*b.* For further guidance, call the DPW Help Line at (845) 938-2316.

**O-5. CULTURAL RESOURCES.**

*a.* Federal Law mandates that all cultural resources eligible for listing on the National Register of Historic Places must be protected from damage. Cultural resources include, but are not limited to, historic buildings and structures, cemeteries, and historic and prehistoric archeological sites. Areas on West Point containing National Register eligible cultural resources are marked with OFF LIMITS signs and/or Seibert Stakes and shall be avoided.

*b.* Protected properties and their marked boundaries are surrounded by a 30 meter buffer. Within this area no excavation, demolition, or tracked/wheeled vehicle traffic will be allowed. Adverse effects to cultural resources by these or other destructive activities can result in violation of Federal Law and the necessity for costly mitigation measures. Federal Law prohibits Artifact/Relic collecting on any cultural resource located on West Point.

*c.* If accidental discovery of items that appear to be cultural remains (historic foundations, graves, historic or prehistoric artifacts, etc.) occurs during emplacement excavation or construction projects, all work shall cease within 30 meters radius of the find.

**O-6. WETLANDS.**

- a. Training activities must be minimized in and around wetlands, streams, and other water bodies on West Point.
- b. Excavation or depositions of any fill material into wetlands or the fording of streams, ponds, lakes, wetlands, etc., can and will trigger jurisdictional action by the U.S. Army Corps of Engineers Regulatory Branch.
- c. Sensitive Wetlands and Mitigation project areas are marked with OFF LIMITS signs and/or Seibert Stakes and shall be avoided.

**O-7. FISH AND WILDLIFE.**

- a. It is illegal to pursue, shoot, hunt, kill, capture or trap protected wildlife or engage in lesser acts that disturb or harass such animals. All hawks, owls, songbirds and their nests are protected and may not be hunted or taken.
- b. It is illegal to hunt, trap, or take fish or wildlife except during the open season and during the hours permitted by law and regulation.
- c. Hunting, fishing, trapping, and related activities are regulated on West Point by West Point Regulation 200-3.
- d. Sensitive areas and monitoring station areas are marked with OFF LIMITS signs and/or Seibert Stakes and shall be avoided.
- e. For more information contact the DPW Fish and Wildlife Biologist.

**O-8. AREAS OF CONCERN.**

- a. As noted in certain sections of this document, areas of concern are marked with OFF LIMITS signs and/or Seibert Stakes and are to be avoided.
- b. Areas of concern can include: cultural and archeological sites, wetlands areas and project sites, wildlife monitoring sites and areas of suspected and known contamination.

**O-9. RECORD OF ENVIRONMENTAL CONSIDERATION (REC).**

- a. Federal Law and Army Regulation requires environmental documentation for all federal actions (e.g. military training, new technology/equipment testing, construction projects, and real property transactions). All training units are required to submit a REC for approval with a Project Name, Date and Duration, Proponent, and a detailed Description of Proposed Action to the Environmental Division, West Point, New York, before their training activity can commence.
- b. RECs shall be filed with the DPW Environmental Division a minimum of two weeks (14 Business Days) prior to occupying the field for training. Larger training missions (i.e., Division and Brigade Levels) shall coordinate and submit RECs thirty days prior to training as part of the planning process. Although RECs may be submitted by FAX to begin review process, the original REC is required for approval and annotations. RECs, once approved, are to be retained with the unit in the field.



Engineer and other support units are required to have an approved REC in hand prior to any project and/or support action.

**O-10. PROCEDURES FOR REC SUBMISSION.**

- a. Provide the name of the action (e.g. Bold Shift,, AT 00, Global Patriot, etc.).
- b. Specify the date and duration of the proposed action beginning with the field preparation date and ending with the field closure date.
- c. List the proponent: unit name, address, point of contact, and phone number.
- d. Describe the proposed action with the information listed below.
  - (1) 8 digit grid coordinates.
  - (2) Radial distance, in meters, from the center grid.
  - (3) Level of activity: number of personnel, number and type of equipment, number and type of weaponry, etc.
  - (4) Describe the type of activity.
    - (a) Mess/shower/laundry: include the amount of gray water and the number of soakage pits requested (specify dimensions).
    - (b) DECON: All vehicles shall be washed at authorized wash rack prior to decon activities. Use of soaps/solvents or other chemical is strictly prohibited. Spraying of vehicle engines and undercarriages for any purpose is strictly prohibited. Include the water source, number and type of vehicles and number of gallons to be sprayed per day/mission.
    - (c) Water purification or treatment. Number of gallons water, chemicals used and at what concentration.
    - (d) Water crossing or bridging operations are prohibited unless coordination takes place to apply/receive approved Waters/Wetlands Federal and State permits.
    - (e) Petroleum, Oils and Lubricants (POL): Number of gallons on site, type of product and how stored (i.e., truck/tank/bladder, on or above the ground storage or fixed).
    - (f) Maintenance: Specify the type/level of maintenance and detail the proposed activity (i.e., estimate gals of waste fluids, storage methods, etc.). Locations for TM-10/20 and DS maintenance are approved on a case-by-case basis. Field spill kits are required (i.e., clear plastic bags, shovels, absorbent pads, etc.). Early coordination with DPW Environmental Division is required for fluid collection and additional guidance.
    - (g) Excavation. Type (i.e., borrow pit, grading, trenches, survivability positions: One-man, two-man, crew served, bunkers, tracked or wheeled vehicles, etc.). Provide dimensions, configurations, equipment required to accomplish task, supporting unit, preparation date and closure date.
    - (h) Demolition. Type, amount of explosive material, training objective, cleanup procedures. *\*NOTE: All demolition actions outside the designated demolition range will require additional environmental review, which will likely result in delays. Coordinate early.*

(i) Construction/Renovation. Description of proposed action and purpose. This includes all contract, troop labor and self-help requests.

(j) All other actions not described here shall require consultation with the DPW, Environmental Division, NEPA Coordinator to determine the appropriate course of action for NEPA compliance.

**O-11. CONCLUSION.**

a. The National Environmental Policy Act (NEPA) requires us to be stewards of our environment. We, as leaders, must assess our mission needs and identify potential impacts to the environment, identify alternatives, and choose those which meet our goals and minimize environmental impacts. IAW AR 200-1 and AR 200-2 we are directed to consider the environment, our mission needs and how our actions today will affect our environment in the future.

b. Investigation by EPA of illegal activities occurring in the training areas at West Point has resulted in criminal charges, indictment and conviction of West Point personnel for violation of environmental laws. This is indicative of the seriousness and consequences that non-compliance with environmental regulations is having. These laws apply to military and civilian personnel.

c. Environmental Briefings are scheduled throughout the year and are available upon request by contacting the NEPA Office.

**SUBMIT NET TWO WEEKS PRIOR TO PROPOSED ACTION**

Project Name/Number:

Date and Duration of Proposed Action:

Proponent: (unit/directorate, address, bldg #, POC, phone number)

Description of Proposed Action: (Include Location (**EIGHT (8) DIGIT COORDINATE**),

Radial distance in meters from center grid, Level of Activity: (i.e., number of personnel and equipment)

Type of activity: (i.e., POL operations, mess/laundry/bath, demolition, real property actions, grading, borrow pit, construction or renovation actions, excavation, fielding/testing actions, etc.)

Signature of this document is solely a determination of compliance with the provisions of the National Environmental Proponent Policy Act (NEPA). This does not preclude, nor constitute a

determination of preclusion from any additional requirements pursuant to submittals or permits ensuring compliance with other applicable federal, state, or local laws, regulations requirements, and/or guidelines.

SIGNATURE

TITLE

DATE

\*\*\*\*\*  
\*\*\*\*\*

**DPW - Environmental Division Use Only**

Approval: \_\_\_\_\_

NEPA Coordinator

Date: \_\_\_\_\_

It has been determined that the action:

a. Is adequately covered in existing EA EIS entitled: dated: \_\_\_\_\_

b. Qualifies for Categorical Exclusion \* A- appendix A, AR 200-2.

**LOG #** A: Approved; C: Cancelled; D: Denied; X: Low impact Received:

IAW NEPA, AR 200-2, AR 415-15, WP Reg 350-11

**APPENDIX P PHYSICAL SECURITY.**

**P-1. PURPOSE.** This Appendix provides initial guidance for minimum requirements concerning physical security while training at West Point, New York.

**P-2. GENERAL.** Physical security requirements for security of individual weapons will be IAW AR 190-11. Details concerning procedures for security, inventory, and storage of weapons and use of armed guards are identified in AR 190-11.

**P-3. WEAPONS SECURITY.**

a. An inventory by serial number will be conducted by an NCO at least once daily when weapons are retained by individual Soldiers in a field environment to ensure positive accountability of all weapons. A record of the inventory will be maintained on file until departure from the range/training area.

b. Tents used for storage of weapons will be under the surveillance of a guard at all times and the tents will be encircled by triple strand razor wire erected in pyramid fashion.

**P-4. ARMED GUARDS.** An armed guard will be posted at an ammunition issue point only when a missile or rocket system (e.g., JAVELIN, AT-4, DRAGON, VIPER or similar type weapons except TOW missiles) or grenades, explosives and detonating devices are physically located at the ammunition point. If more than one guard is assigned, only

one will be armed. "Armed" is defined as having a firearm and appropriate ammunition readily available for immediate use.

**P-5. SECURITY ASSISTANCE CHECKS.** Random periodic checks of ammo points and procedures may be conducted by Range Control, DOL, CSO and LEC.

**P-6. LOST/STOLEN WEAPONS.** Commander will notify Range Control immediately upon discovery of loss or theft of a weapon. Range Control will notify need to know agencies.

**P-7. AMMUNITION SECURITY.** Ammunition security requirements are outlined in Appendix M.

**P-8. VEHICLE SECURITY.** All ground vehicles will be secured with a locking device when parked or unattended. A vehicle is considered to be unattended when the driver or other unit members are not physically present or immediately adjacent to the vehicle.

**P-9. AIRCRAFT SECURITY.**

- a. Aviation/Aircraft Commanders are responsible for proper security of aircraft.
- b. Aircraft with weapons or ammunition on board will be protected IAW AR 190-11, AR 190-51 and Appendix N of this regulation.

## **APPENDIX Q.**

### **PUBLIC AFFAIRS AND RANGE OPERATIONS.**

#### **Q-1. GENERAL.**

- a. Range operations and training accidents are of high visibility and attract a great deal of public interest.
- b. The public has a right to know about accidents/incidents, procedures must be followed to ensure that the right to privacy of personnel involved are not denied, that an investigation is not hampered by release of speculative or unrelated remarks and that the information presented to the public is as factual as possible.

#### **Q-2. BASIC REQUIREMENTS.**

- a. IAW the basic range regulation, visits to ranges and training areas must be coordinated through Range Control. IAW West Point policy, news gathering media may be invited on the Installation through the Public Affairs Office (PAO). If a unit desires media coverage of training, coordination must be made with the PAO and external media coverage.
- b. In the event of an accident/incident, personnel must refrain from making comments, answering questions or engaging in speculation with members of the media. If approached by a member of the media, personnel involved must refer the question to

a PAO representative. If there is no PAO representative present, firmly and politely reply with "I will refer your query to the Public Affairs Office".

c. At no time should excessive force or abusive language be directed against the news media representative (NMR). If the NMR is compromising classified material within the boundaries of the Installation, CP support may be requested to prevent the compromise. Separation of NMRs and personnel involved in the accident or incident should be accomplished through traffic control points or by sealing off the accident site to prevent unauthorized release of information. Keep in mind that a camera does not need to be focused directly on its subject and those video cameras and tape recorders will pick up audio signals quite clearly from a distance.

d. Following an accident or incident, anyone that identifies himself as a NMR must be escorted by a PAO designated escort or PAO representative. Make positive identification of official personnel before volunteering information.

## **APPENDIX R COMPOSITE RISK MANAGEMENT DIAGRAMS.**

### **R-1 GENERAL.**

a. Composite Risk Management (CRM) is a five step process that can be referred to in FM 5-19 Composite Risk Management JUL 2006. The process is as follows:

- (1) Identify hazards.
- (2) Assess hazards to determine risk.
- (3) Develop controls and make risk decisions.
- (4) Implement controls.
- (5) Supervise and evaluate.

b. Users of any facility on the range for training will complete the CRM Worksheet (DA Form 7566) figure R-1 with appropriate signatures and provide a copy to Range Control prior to operations on any range.

Table 3-1.

RANGE/COURSE	WEAPON SYSTEMS	MEDICAL REQUIREMENTS
1	M67 Hand Grenade (Frag)	MOS Qualified Medic/EMT, litter, radio communication, complete medical aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
1A	M69 Practice Grenade w/fuze.	Current Soldier First Responder (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
2	105mm Howitzer, M119, M102	MOS Qualified Medic/EMT, litter, radio communication, complete medical aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
3	.22, .38, .40, 45 Cal, 9mm, 10mm Pistol	Current Soldier First Responder (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
4	9mm, 10mm, .40 Cal and .45 Pistol; 12 Gauge Shotgun, 5.56mm (NO 5.56 SAW MG authorized)	Current Soldier First Responder (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
5	.22, .38, .40, 45 Cal, 9mm, 10mm Pistol, M16/M4 Rifle (5.56mm); M249 SAW MG (5.56mm); M240B MG (7.62mm)	(5.56mm Weapons) Current Soldier First Responder (Any MOST), litter, radio communication, CLS aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
		(7.62mm) MOS Qualified Medic/EMT, litter, radio communication, complete medical aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
7	M136, AT-4; M18A1 Claymore Mine; MK-19 Grenade Launcher MG	MOS Qualified Medic/EMT, litter, radio communication, complete medical aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS. *** M287 trainer firing 9mm tracer only may use Combat Life Saver (Any MOS).
8	9mm, 10mm, .40 Cal., and .45 Cal Pistol; M16/M4; M203 40-MM (or equivalent)	(40mm) MOS Qualified Medic/EMT, litter, radio communication, complete medical aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
		(Pistol/5.56mm) Current Combat Life Saver (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
9	.38 , .40, .45 Cal., 9mm, 10mm, Pistol	Current Soldier First Responder (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.

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10	.410 to 12 Gauge Shotguns	Current Soldier First Responder (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
11A, 11B, 11	5.56mm (NO 5.56 SAW MG authorized)	Current Soldier First Responder (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
12	Trinitrotoluene (TNT), Dynamite, Composition C4, Shaped Charges, Bangalore Torpedo, Detonation Cord & Blasting Caps	MOS Qualified Medic/EMT, litter, radio communication, complete medical aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
13	60mm Mortar; 81mm Mortar, M252, M29A1; 120mm Mortar	MOS Qualified Medic/EMT, litter, radio communication, complete medical aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
14	Out of Service	
15	.40, 45 Cal, 9mm, 10mm Pistol, M16/M4 Rifle (Blank, SESAMS, Simunitions, UTM), 40mm (TP only)	(Blank, SIMS, UTM) Current Soldier First Responder (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS. (40mm) MOS Qualified Medic/EMT, litter, radio communication, complete medical aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
LFX 1-LFX 5	5.56mm (NO 5.56 SAW MG authorized)	Combat Life Saver (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
Anzio Obstacle Course	None	Current Soldier First Responder (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
CRBN Chamber	CS Gas	Current Soldier First Responder (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
Land Navigation Courses 1-3	None	Current Soldier First Responder (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
Lundy Leadership Reaction Course	None	Current Soldier First Responder (Any MOS) , litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
Marne Confidence Course	None	MOS Qualified Medic/EMT, litter, spine board, neck brace, radio communication, complete medical aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.

MOUT Sites	.40, 45 Cal, 9mm, 10mm Pistol, M16/M4 Rifle (Blank, SESAMS, Simunitions, UTM), Smoke, Practice Hand Grenades	(Blnaks, SIMS, Practice Hand Grenades) Current Soldier First Responder, litter, radio communication, CLS Aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.
River Courts Rappel Tower	Air Assault	Two MOS Qualified Medic/EMTs, litter, spine board, neck brace, radio communication, complete medical aid bag and all required CL VIII items, with current expiration dates, dedicated CASEVAC capable of litter transport and current PMCS.

Figure R-1.

COMPOSITE RISK MANAGEMENT WORKSHEET							
For use of this form, see FM 5-19; the proponent agency is TRADOC.							
1. IDENTIFY TASK		2a. DYS BEGIN		2b. DYS END		3. DATE PREPARED (YYYYMMDD)	
4. PREPARED BY							
a. LAST NAME			b. RANK		c. POSITION		
5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
Additional space for entries in items 5 through 11 is provided on Page 2							
13. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (Check one)							
<input type="checkbox"/> LOW <input type="checkbox"/> MODERATE <input type="checkbox"/> HIGH <input type="checkbox"/> EXTREMELY HIGH							
14. RISK DECISION AUTHORITY							
a. LAST NAME		b. RANK		c. DUTY POSITION		e. SIGNATURE	

c. Units are also advised to obtain the newest GTA to be carried on persons at all times. An example of this GTA is provided in FIGURES R-2 and R-3.



**FIGURE R-2.**



FIGURE R-3.

**Risk Assessment Matrix**

Matrix below provides leaders a process to assess risk based on severity and probability of each hazard. The point where the severity row and probability column intersect defines the level of risk of a hazard. See reverse for "Risk Acceptance Authority Levels". Taking unnecessary risk is unacceptable.

Severity \ Probability		Frequent	Likely	Occasional	Seldom	Unlikely
		A	B	C	D	E
Catastrophic	I	E	E	H	H	M
Critical	II	E	H	H	M	L
Moderate	III	H	M	M	L	L
Negligible	IV	M	L	L	L	L

**Definitions of Severity**

- **Catastrophic:** Death or permanent total disability, system loss, major property damage
- **Critical:** Permanent partial disability, temporary total disability of at least 3 months, major system damage, significant property damage
- **Moderate:** Minor injury lost workday accident, compensable injury or illness, minor system damage, minor property damage
- **Negligible:** First Aid or minor supportive medical treatment, minor system impairment

**Definitions of Probability**

- **Frequent:** Occurs often, continuously experienced
- **Likely:** Occurs several times
- **Occasional:** Occurs sporadically
- **Seldom:** Unlikely, but could occur at some time
- **Unlikely:** Can assume it will not occur

**Definition of Risk Levels (combining severity and probability)**

- **E = Extremely High:** Loss of ability to accomplish mission if hazards occur during mission
- **H = High:** Significant degradation of mission capabilities if hazards occur during mission
- **M = Moderate:** Minor injury, lost workday accident, compensable injury or illness, minor system damage, minor property damage
- **L = Low:** Little or no impact on mission accomplishment

**APPENDIX S: Abbreviations and References**

**Section I**  
**Abbreviations**

**AGL**

Above ground level

**ASP**

Ammunition Supply Point

**CS**

Clorobenzolmalohonitrile Gas

**DPW**

Directorate of Public Works

**DOD**

Department of Defense

**DODIC**

Department of Defense Identification  
Code

**EOD**

Explosive Ordnance Detachment

**FARP**

Forward Arming and Refueling Point

**FM**

Frequency modulated

**LSP**

Live Fire Support Package

**HC**

Hexachloroethane-Zinc

**IAW**

In accordance with

**ITAM**

Integrated Training Area Management

**KACH**

Keller Army Community Hospital

**LRSO**

Laser Range Safety Office

**LRTC**

Long Range Training Calendar

**MOUT**

Military Operations on Urban Terrain

**MSC**

Major subordinate command

**NBC**

Nuclear, biological, chemical trainer

**NCO**

Noncommissioned officer

**NOTAM**

Notice to Airmen

**OIC**

Officer in charge

**PMO**

Provost Marshal Office

**POV**

Privately owned vehicle

**RFMSS**

Range Facility Management Support System

**RSO**

Range Safety Officer

**RTLTP**

Range and Training Land Program

**SDZ**

Surface Danger Zone

**SOP**

Standing Operating Procedures

**SRA**

Sustainable Range Awareness

**TADDS**

Training Aids Devices and Simulators/Simulations

**TOC**

Tactical Operations Center

**UGA**

Unmanned Aerial System

**UGV**

Unmanned Ground Vehicle

**UIC**

Unit Identification Code

**USMA**

United States Military Academy

**VFR**

Visual Flight Rules

**VIP**

Very Important Person

**WP**

White Phosphorous

**Section II**

**REFERENCES**

Required Publications

**AR 190-11**

Physical Security of Army, Ammunition, and Explosives, Nov 06

**AR 190-14**

Carrying of Fire Arms and Use of Force for Law Enforcement, Mar 93

**AR 210-21**

Army Ranges and Training Land Program, May 97

**AR 335-15**

Management and Information Control System

**AR 350-19**

The Army Sustainable Range Program, Aug 2005

**AR 385-40**

Accident Reporting and Records, Nov 94

**AR/DA PAM 385-63**

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**AR 385-64**

Ammunition and Explosive Safety Standards

**AR 385-65**

Identification of Inert Ammunition and Ammunition Components

II. Related Publications

**AR 40-5**

Preventive Medicine

**AR 75-1**

Malfunctions Involving Ammunition and Explosives

**AR 75-15**

Policy for Explosive Ordnance Disposal

**AR 95-1**

Flight Regulations

**AR 95-23**, Unmanned Aerial Vehicle, Flight Regulations

**AR 190-40**

Serious Incident Report

**AR 200-1**

Environmental Protection and Enhancement

**AR 200-2**

Environmental Effects of Army Actions

**AR 385-10**

The Army Safety Program

**AR 700-19**

U.S. Army Munitions Reporting System

**AR 700-68**

Storage and Handling of Compressed Gases and Gas Cylinders

**DA Pamphlet 385-40**

Army Accident Investigation and Reporting

**DA Pamphlet 385-64**

Ammunition and Explosive Safety Standards

**DA Pamphlet 700-19**

Procedures for the United States Army Munitions Reporting System

**FM 3-04.15**

Multi-Service Tactics, Techniques, and Procedures for the Tactical Employment of Unmanned Aircraft Systems

**FM 3-04.140**

Helicopter Gunnery

**FM 3-06**

Urban Operations

**FM 3-06.11**

Combined Arms Operations in Urban Terrain

**FM 3-7**

NBC Field Handbook

**FM 3-09.8**

Field Artillery Gunnery

**FM 3-19.30**

Physical Security

**FM 3-20.8**

Scout Gunnery

**FM 3-22.9**

Rifle Marksmanship M16A1, M16A2/3, M16A4 and M4 Carbine

**FM 3-22.27**

Mark-19 40mm Grenade Machine Gun, Mod 3, Nov 03

**FM 3-22.65**

Browning Machine Gun, Cal .50 MG M2 Nov 07

**FM 3-22.68**

Crew Served Machine Guns, 5.56-mm and 7.62-mm (M249, M60 and M240B) Jul 06

**FM 3-22.90**

Mortars, Dec 07

**FM 3-22.91**

Mortar Fire Direction Center Procedures Jul 08

**FM 3-23-25**

Shoulder Launched Munitions

**FM 3-23.30**

Grenades and Pyrotechnic Signals



**FM 3-23.35**

Combat Training with Pistols, M9 and M11

**FM 3-25.26**

Map Reading and Land Navigation

**FM 3-34**

Engineer Operations

**FM 3-34.2**

Combined-Arms Breaching Operations

**FM 3-100.38**

UXO Multi-Service Tactics, Techniques and Procedures for Unexploded Ordnance Operations

**FM 4-30.51**

Unexploded Ordnance (UXO) Procedures

**FM 5-250**

Explosives and Demolitions

**FM 6-20-20**

Fire Support at Battalion Task Force and Below

**FM 6-40**

Field Artillery Cannon Gunnery, Apr 96

**FM 6-50**

Field Artillery Cannon Battery Dec 96

**FM 7-8**

Infantry Rifle Platoon and Squad

**FM 9-15**

EOD Service and Unit Operations, May 96

**FM 3-21-75**

The Warrior Ethos and Soldier Combat Skills, Jan 08

**FM 23-10**

Sniper Training

**FM 23-31**

40mm Grenade Launcher M203

**FMI 3-04.155**

Army Unmanned Aircraft System Operations

**TC 5-400**

Unit Leaders' Handbook for Environmental Stewardship

**TC 25-8**

Training Ranges, Apr 2004

**MIL STD 709A**

Ammunition Color Coding

**TB MED 524**

Control of Hazards to Health from Laser Radiation

**TB 9-1300-385-1**

Munitions, Suspended or Restricted

**West Point Range and Specialty Course Information Book**

**West Point Supplement to AR 95-1**

**West Point Aviation Procedures Guide (APG)  
Integrated Natural Resources Management Plans (INRMP)**

Section III. Referenced Forms

**DA Form 581**

Request for Issue and Turn In of Ammunition

**DA Form 2203-R**

Demolition Reconnaissance Record

**DA Form 3020-R**

Magazine Data Card

**DA Form 5203**

DODIC Master/Lot Locator Record

**DA Form 5514-R**

TAMIS Training Ammunition Forecast Report

**DA Form 5515**

Training Ammunition Control Document

**DA Form 5515-R**

Ammunition Stores Slip

**DA Form 5692-R**

Ammunition Consumption Certificate