



Emergency Phone Numbers:

Range Control: (845) 938-3930
 Fire Department: (845) 938-3001*
 ITAM Office: (845) 938-5939
 Env Mngt Division (EMD): (845) 938-3224
 Natural Resources: (845) 938-3857
 Cultural Resources: (845) 938-3522
 Solid Waste Mngt Branch (845) 938-4074

USMA DSN is 688

* During Cadet Summer Training notify Fire Station #3, Bldg 1400, Route 293 at 938-4317.

Frequencies:

Range Control: 46.70*
 Keller Hospital ER: 150.70
 * Only used by Range Control



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USMA



TRAINING AND THE ENVIRONMENT

A LEADER'S HANDBOOK





NOTES



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INTRODUCTION

This Leader's Handbook was prepared specifically for the U.S. Military Academy as part of the Integrated Training Area Management (ITAM) Program. The objectives of the Program are to maintain and enhance the training environment at USMA. Unit commanders should recognize the importance of these objectives since they are responsible for realistic training that ensures combat readiness. While this handbook was prepared for West Point, most of the guidelines, policies and procedures can apply to all Army training areas. Maintaining combat readiness through training realism is important, not only at West Point, but at all Army installations.

West Point Training Areas

West Point is the home of the United States Military Academy (USMA). The military reservation includes over 16,000 acres that are used to support training exercises. Realistic training is essential to mission success and protection and conservation of the natural environment is critical to maintaining this realism.

West Point provides a variety of resources to the local communities, including timber, recreational facilities and water resources. In addition, West Point has endangered species habitats and cultural sites that must not be disturbed. Each soldier must take responsibility for the protection and conservation of the training resources available at West Point.



SUMMARY

The vast majority of environmental degradation and accidental injury, or even loss of life, to personnel during field exercises can often be directly attributed to a lack of understanding or knowledge about the environment in which training occurs. Personnel must be made aware of the ramifications of their actions on the training environment which, in turn, reflects upon the overall training mission.

Training lands are the Army's classroom and unnecessary damage to the land affects the quality of the training experience for those who follow.

The information and guidelines given in this handbook are intended to help you prevent environmental damage. It is essential to communicate these preventive measures to all personnel participating in maneuvers at West Point. Environmental awareness will lead to long-term protection of the training area's natural resources and will help ensure the success of the USMA training mission.





COMMANDERS RESPONSIBILITY (continued)

4. Commanders will ensure that any field entrenchments or earthworks are filled in and leveled.
5. Report to Range Control all maneuver damage that occurred during training exercises. Report any conditions that might create safety hazards or difficulties for future units using the training area.

After the redeployment of each maneuver unit, a thorough post-maneuver survey of the entire training area will be conducted by Range Control. Units found to have neglected any of the above procedures will be called back to the range or training area to complete the appropriate cleanup or repair operations.



Impacts of Environmental Damage

Training exercises and maneuvers have increased environmental impacts on U.S. Army installations. Among these impacts are:

1. Destruction of natural resources (soil, water, vegetation) by vehicles during administrative and maneuver activities.
2. Litter accumulated during bivouac activities such as meals-ready to eat (MREs), glass bottles, soft drink cans, plastic bags, cigarette butts, ammunition brass, plastic paint ball containers, communication wire, and concertina wire.
3. The creation of foxholes, defilades, and other entrenchments which are left unfilled following training activities.
4. Soil compaction through long-term/continuous use of bivouac areas and other dismantled training sites.
5. The cutting of vegetation for camouflage.
6. Destruction of vegetation and soils by unchecked range fires.
7. Field maintenance on vehicles and weapons leading to soil and water contamination by hazardous substances.
8. Artillery training produces a residue which contains heavy metals which, after the powder is burned, must be properly disposed of.





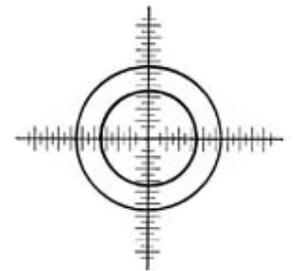
PREVENTION OF ENVIRONMENTAL DAMAGE DURING TRAINING

The key to preventing or minimizing environmental damage is being fully aware of the correct procedures to follow during the various activities that occur during field training exercises. Unit commanders should realize that the guidelines contained in this book pertain not only to the activity under which they are listed, but are intended to be applied whenever appropriate.

FIRE PREVENTION



- ◆ Open fires are prohibited on ranges and training areas except for controlled burning points, which require a fire permit from the USMA Fire Department.
- ◆ Blank ammunition, flares, and simulators cause a majority of the forest fires at West Point. Units starting forest fires will immediately attempt to put the fire out using any means available.
- ◆ All fires, regardless of size or intensity, should be reported as soon as they are observed to the USMA Fire Department (938-3001) and Range Control (Phone: 938-3930/4317; Radio 50.00 Mhz FM).
- ◆ During Cadet Summer Training notify the Camp Buckner Fire Department at 938-2953/117 and the CFT S3, Operations Officer at 938-4371.



OPERATIONS

UNIT COMMANDERS RESPONSIBILITIES

Upon completion of training, commanders are responsible for the policing and clean up of bivouac areas, assembly areas, command post locations, logistical facilities, and all other areas occupied or traversed. Thorough policing of all occupied areas includes:

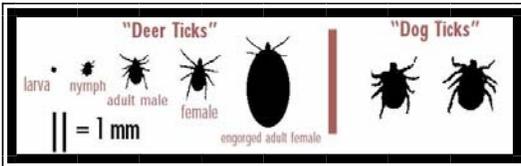
1. Clean up around refuse containers and portable latrines. All food refuse must be bagged and sealed in garbage bags and transported to the waste transfer point for disposal.
2. Removal of all signs, concertina wire, communications wire and cables, engineer tape, and other materials and training aids used during the exercises.
3. All items such as concertina wire, ammunition, pyrotechnics and explosives, which may endanger personnel health and safety or wildlife, must be removed from the training area.





reservation. This tick can transmit Lyme Disease to animals and humans.

The use of DEET and permethrin is the most effective method of avoiding tick bites. The figure on page 18 shows the size of the deer tick relative to a dime. Remove any ticks found imbedded in skin immediately.



ENVIRONMENTAL REVIEWS

The following activities require an environmental review to ensure the protection of natural and cultural resources. Contact Range Control or the ITAM office to initiate the review.

- ◆ Any activity which involves digging.
- ◆ Undertakings which may affect archeological sites or historic structures (including stone walls).
- ◆ Mechanical excavation of any kind or deposition of fill in wetlands or waters.
- ◆ Cutting of any trees or vegetation.
- ◆ Any other activity that may cause soil erosion, water or air pollution, damage to vegetation or archeological sites, or modification of training land.



- ◆ Obey the fire preventative measures and restrictions listed on the Pyrotechnic Fire Hazard Decision Matrix Card (below) for the posted fire hazard conditions.
- ◆ Do not enter the impact/danger area to put out fires.

Pyrotechnic Fire Hazard Decision Matrix					
Action	Green	Blue	Yellow	Orange**	Red**
	Class 1	Class 2	Class 3	Class 4	Class 5
No restriction	X	X	X		
No parachute flares or star clusters			C	X	X
No ground flares*			C	X	X
No smoke pots*			C	X	X
No smoke grenades*			C	X	X
No demolition*			C	X	X

C = exercise caution when executing listed action
 X = execute listed action

* These pyrotechnics can be used during all burn index categories except red if they are ignited and extinguished in a controlled burn pit. This pit must be inspected by the Fire Chief prior to use.

** Ranges are limited to Ball Ammo only under categories Orange and Red





VEHICLE MOVEMENT

Environmental Impact. Damage caused by vehicle maneuvers can significantly impact the environment and must be prevented. Once soils are disturbed they can form channels through which the flow of runoff water can lead to the **creation of gullies**. Environmental damage that contributes to **SOIL EROSION** is the most critical threat. Vehicular damage to roads and trails can lead to the creation of ruts and gullies which can cause serious soil erosion. Similar impacts to the natural environment can also occur when vehicles are driven in **off-road** areas. Vehicles can compact the soil, which reduces plant growth, therefore effecting soil stability. Repair of these erosion gullies and to the roads and trails is costly in terms of money and training time.

Training Impact. Erosion gullies and ruts created from maneuver damage can become a safety factor during training. Areas unnecessarily disturbed by unit activities can sometimes paint a very clear picture for intelligence/counter-intelligence activities.



HAZARDOUS PLANTS AND ANIMALS

USMA training reservation is home to a number of plants and animals that could potentially cause harm or discomfort to you if you come in contact with them. It is important for your health and safety, as well as for the protection of these animals and plants, that you are aware of them and can avoid them when necessary. Listed below is a description of a selection of plants, animals and insects that you should be aware of while training.



Poison Ivy:

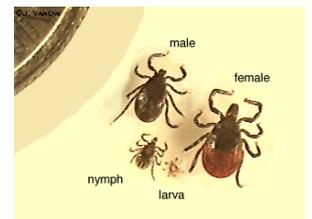
Poison ivy is common to the woodland areas of West Point.

This plant may occur as a climbing vine or as a rooted singular plant. It is readily identifiable by its three shiny leaves, emerging from a thick woody vine or a thin pale stem.

All parts of the plant contain urushiol, an oil that can cause a rash on human skin. The oil can be absorbed by clothing, then transferred to the skin by later contact. Learning to identify and avoid this plant is the best option.

Deer Tick:

The black-legged tick *Ixodes scapularis*, commonly known as the Deer Tick, has been found throughout the USMA





TRAINING EXCLUSION AND OFF-LIMITS AREAS

TEAs: Training Exclusion Areas (TEA) protect sensitive areas from potential damage due to Army training activities. TEAs are clearly marked on the West Point Ranges and Training Areas Map or by signs in the training areas. No training of any type will be conducted in these areas to include bivouacking, parking or movement through the areas.

Off-Limits:

Because of the amount and type of training occurring in some training areas, it becomes necessary to temporarily put these areas off-limits. This is to repair or rehabilitate these areas so they do not become safety issues or a detriment to training. Occasionally a trail off the main range road system has to be temporarily closed for rehabilitation. These areas are marked by signs or Seibert Stakes, or both. Often, these areas have been seeded and mulched and should not be disturbed. Please respect and stay off these areas, as they are rehabilitating from previous work done



Seibert Stake

at the site. Signs restricting access to these areas apply to all activities, including training. If use of such an area is deemed critical to the mission, coordination should be made with the Range Control (938-3930) or ITAM office (938-5939).



Procedures for Minimizing Environmental Damage

- ◆ Obey posted speed and weight limits on roads and trails. The speed limit within the training areas and on all range roads at USMA is 10 MPH. Excessive speeds damage roadways and create unsafe conditions at USMA.
- ◆ While traveling to and from ranges or training areas, stay on the established roads. Units causing any ruts must fill them in as soon as possible.
- ◆ Remain on marked trails and designated routes unless otherwise directed. Avoid driving on the edges of the roads whenever possible.
- ◆ Avoid destroying vegetation at all times. Keep vehicles out of wet areas, especially wetlands, creek bottoms and streams.
- ◆ Avoid foundations and stone walls, and areas identified as Redoubts.
- ◆ Vehicles must remain outside of land restoration areas, as well as restricted and protected habitats.





FIELD ACTIVITIES



"Field Activities" encompass any and all actions taken by soldiers in the field either in executing tactical operations or in supporting routine personnel and machinery care and provisioning.

To assist the unit commander in controlling environmental damage, this section is organized according to the following major categories of field activities:

1. EXCESSIVE NOISE
2. CAMOUFLAGING AND FIELD FORTIFICATIONS
3. WASTE DISPOSAL
4. POL/HAZARDOUS SUBSTANCES
5. POLICE OF TRAINING AREAS



Environmental Impact. In addition to environmental damage such as soil erosion, field activities can result in threats to wildlife, vegetation and human health through improper disposal of materials and the contamination of soils and waterways. It is the unit commander's responsibility to ensure that hazardous substances are not accidentally spilled or intentionally dumped in the training areas. Contamination of soils and waterways with hazardous materials may affect drinking water supply. Substances spilled or dumped on the ground will move through the soil into underground



WILDLIFE



White Tailed Deer

The trapping or killing of wild animals is prohibited except when authorization has been obtained from Wildlife Biologist, Natural Resources Branch, DHPW, phone 938-3857.

Rattlesnakes at West Point are officially listed as a "Threatened" species by **Eastern Timber Rattlesnake** New York State.

Harassing, harming, or handling of rattlesnakes is strictly prohibited for the protection of the snake and humans. Violation of this is considered a felony.



Rattlesnake sightings should be reported to the Wildlife Biologist (938-3857) or to the ITAM office (938-5939).

Report all sightings of Bald Eagles to the Wildlife Biologist (938-3857)

Disturbance of wildlife habitats, such as beaver dams or bird nests, is also prohibited.





PROTECTED RESOURCES



Vast amounts of military training land have been unaffected by commercial and economic development, thus leaving these areas as a sanctuary for many rare and threatened natural resources, i.e. endangered species and wetlands. These training areas must be managed in an effective manner that coordinates training needs with natural resource management, and protects these sensitive areas.

Environmental damage from training can cause a decrease in realistic training opportunities, may result in safety risks, and could even result in an administrative restriction on training if a sensitive area or species is destroyed or disturbed.

PROTECTED GROWTH AREAS



Protection and management of natural resources in the USMA training areas involves the establishment of individual tree seedling shelters and deer browsing study plots which must not be disturbed. The tree shelters are either 5 foot tall white or brown plastic cylinders or small wire cages (depicted here). Deer study plots are small (generally 12' x 12') fenced areas found throughout the training reservation.



Tree Shelter



water supplies if they are not quickly cleaned up. Spills into waterways contaminate the water immediately, posing a threat to people and wildlife downstream. All spills should be reported immediately to the Environmental Management Division (EMD) at 938-3224.

Training Impact. Contamination of soils and waterways can pose a health threat to members of your unit or other units who follow you to the training area. Improper waste disposal can limit the use of the training area and reduce training realism.



EXCESSIVE NOISE

Excessive noise during maneuvers is not only an irritant to local population, but can also stress wildlife.



GENERAL GUIDELINES TO MINIMIZE EXCESSIVE NOISE

1. Ensure that vehicles are well-maintained and that exhaust and intake systems are in proper condition.
2. Drivers should avoid revving the engine of the vehicles. This is especially important when units are moving near local towns.
3. Users should be sensitive to the use of noise of any kind adjacent to dwellings and from 2200 to 0800 hours on weekdays and all hours on weekends.





CAMOUFLAGING AND FIELD FORTIFICATIONS

Field Fortifications

- ◆ Construction of temporary field fortifications is permissible with prior notification of Range Control. No living trees or plants will be cut to aid in the construction of field fortifications. All earthworks such as ditches, foxholes, bunkers and fighting positions must be filled in and leveled prior to clearance.
- ◆ Construction of field fortifications, or any other training activity, should not involve the disturbance of cultural resources of potential historic value. Such resources include building foundations, cellar holes, stone walls, mine excavations and wells and cisterns.
- ◆ If artifacts are found while digging fortifications, cease digging in the vicinity and immediately contact Range Control 938-3930.



Tree and Foliage Cutting

- ◆ The cutting of trees and/or shrubs is prohibited except when authorization has been obtained from Range Control (938-3930) and the ITAM office (938-5939). The cutting of all trees, to include small saplings, must be controlled to assure adequate numbers of



hours, Ph# 938-3001. Take appropriate actions to stop the flow and contain the spread of the spill with absorbent, booms or dirt.

- ◆ Refueling of vehicles, equipment and aircraft is prohibited in the training complex. Exceptions are Camp Natural Bridge, Camp Buckner, Lake Frederick, and the Area K loading dock area.
- ◆ Fuel trucks and tankers may not be parked within 200 meters of lakes, ponds, streams, rivers, etc.



POLICING OF TRAINING AREAS



Wire left on training areas poses a threat to the safety of your unit. Unit personnel may become entangled in concertina wire during an unforeseen movement back through previously occupied areas.

Recover all barbed, ribbon and concertina wire used during training before the unit leaves the range. Wire left behind is a hazard to future units, recreational users of the training areas and wildlife. Wire can damage vegetation and can interfere with forestry, wildlife, and fire control operations.





POL AND HAZARDOUS MATERIALS



- ◆ Minimize the use of chemicals to protect water sources, vegetation and wildlife.
- ◆ Perform vehicle maintenance in approved maintenance sites.
- ◆ It is prohibited to spread waste POL products on the ground or dispose of them by burying or dumping into sewers, ditches or streams. All POL and hazardous waste shall be properly collected and contained as per the USMA SOP for handling hazardous waste. Disposal of motor pool byproducts and hazardous materials must be coordinated with USMA Environmental Management Division (EMD) 938-3224.
- ◆ Hazardous waste shall not be transported without prior approval of EMD.
- ◆ All units conducting field exercises should carry drip pans, overpack drums and a supply of dry absorbent (speedi-dry and oil pads/booms) in case of an accidental release of hazardous materials.
- ◆ If a spill does accidentally occur, of any kind, no matter the size, it must be reported to the DHPW, EMD (938-3224) during duty hours or to the USMA Fire Department during non-duty



appropriate species are reserved to form the future training area forest. The cutting of tree branches for camouflage or other purposes is prohibited to assure the good health of the trees. Use of leaves is acceptable for camouflage.

- ◆ Acceptable camouflage, and its location, can be obtained by contacting Range Control (938-3930) or the ITAM office (938-5939).



WASTE DISPOSAL

- ◆ Littering is strictly prohibited at USMA. All units will ensure trash is deposited in the trash containers located throughout the Training Complex.
- ◆ Dispose of human wastes at field locations in accordance with normal field sanitation procedures. It is the responsibility of each unit commander to prevent the contamination of water sources. Water used for personal hygiene will not be dumped in or near streams or wetlands. Digging of field latrines is not allowed at USMA. Each unit will coordinate rental of portable latrines with USMA DOC at Ph# 938-4407.
- ◆ Burying of kitchen and food wastes is strictly prohibited. The use of trash barrels and dumpsters is not permitted for the disposal of food waste. Take class 1 waste to the waste transfer point.





United States Military Academy Environmental Map

