

**TRAINING
PINON CANYON MANEUVER SITE (PCMS)**

History. This publication is a major revision.

Summary. This regulation prescribes procedures and policy for the use of Fort Carson (FC) Piñon Canyon Maneuver Site (PCMS) Ranges and Training Areas (TAs).

Proponent and exception authority. The proponent for this regulation is the Directorate of Plans, Training, Mobilization, and Security (DPTMS) Fort Carson PCMS Range Operations (FC, PCMS, RO). The proponent has the authority to approve exceptions or waivers to this publication that are consistent with controlling laws or regulations.

Applicability. This regulation applies to FC PCMS Staff, activities, tenant, and non-tenant Units that are stationed at or use PCMS Ranges and TA's.

Army internal control process. This publication does not contain any management control provisions.

Supplementation. Supplementation of this publication is prohibited without prior approval from the DPTMS, ATTN: Range Operations, 2740 Wilderness Road, Fort Carson, CO 80913-4720.

Suggested improvements. Users are invited to send comments and suggested

improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to DPTMS, ATTN: Range Operations, 2740 Wilderness Road, Fort Carson, CO 80913-4720.

(IMCR-PLT)

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**Chapter 1
Introduction**

1-1. Purpose.

- a. This regulation prescribes PCMS, safety policies, and responsibilities for firing ammunition, Light Amplification by Stimulated Emission of Radiation (LASER).
- b. Individual range requirements are listed in the range Standard Operating Procedures (SOP); however, as new weapons systems or changes in training doctrine occur, ranges will change to maintain relevance. The changes to individual ranges will first be written in the Range SOP. Normally the most current operating instructions will be the SOP. The PCMS-RO, Range Manager will resolve all conflicts between the Range SOP and this regulation. Additionally, Range Operations may grant exceptions to this regulation or impose further restrictions based on safety and other regulations or laws that may apply to any given situation.

1-2. References.

- a. Required and related publications and prescribed referenced forms are listed in Appendix A.
- b. All map grid coordinates used in this regulation are from Piñon Canyon Maneuver Site Military Installation Map, NAD83/WGS84.

1-3. Explanation of abbreviations and terms.

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

1-4. Deviations.

a. Deviations may be granted based on critical mission requirements that conflict with regulatory standards in accordance with (IAW) AR 385-63 (Range Safety). Deviations are limited to the following:

- (1) Reducing Surface Danger Zone (SDZ) dimensions when terrain, artificial barriers, or other compensating factors make smaller SDZs safe.
- (2) Modifying prescribed firing procedures appropriate for a state of training of participating personnel to increase training realism.

(3) Allowing personnel who are not directly participating in training, within the SDZ.

b. Deviations applied to SDZs extending beyond installation boundaries must be based on the ability to contain projectiles, hazardous fragments, laser beams and both vertical and horizontal ricochet sufficiently within the installation boundaries, and areas under military control (e.g., leased land or TAs and facilities acquired through Memorandum of Understanding or Memorandum of Agreement). Probability of hazardous fragment escapement must not present a greater hazard than 1:1,000,000 (10^{-6}) (unlikely) to the public.

c. At a minimum, all deviation authorizations will contain the following, as appropriate:

(1) Statement citing chapter, paragraph, and subparagraph of the specific condition requiring deviation, and the name and number of the firing range, training facility, or maneuver area involved.

(2) Description of the existing condition and anticipated hazards, subsequent hazard analysis, and risk analysis.

(3) Statement as to why a deviation is required and impact on training if not granted.

(4) Control measures necessary to eliminate hazards, minimize risks, and residual risk levels.

(5) Installation and unit SOPs governing the specific firing range, training facility, or maneuver area for which the deviation applies.

(6) Scaled topographical map depicting standard SDZ and requested deviation.

(7) Map coordinates of the firing position, target location, and quadrant or elevation of fire, if required. The firing position, direction of fire, and SDZs will be plotted on the scaled map with distances shown in meters.

(8) Terrain profiles through the Gun Target Line with left and right limits of fire showing the relative elevation of the weapon system to be fired, the target, and natural terrain backstop or artificial barrier. Also submit a cross-sectional terrain profile showing the downrange natural terrain backstop. Terrain profiles only need to be drawn for the conditions requiring deviation and if profiles support justification for the deviation. If deemed appropriate by the installation commander, Automated SDZ trajectory profiles may be submitted in lieu of developing terrain profiles through manual means. Risk management principles will be applied in determining the applicability of alternate profiles.

d. Requests for deviation will originate from the unit or activity conducting the event or the PCMS-RO. Requests will be coordinated through the appropriate chain of command as needed and the Installation Safety Office, which will provide final review to ensure risk-management steps are accomplished. The PCMS-RO makes the initial judgment regarding the suitability of a proposed deviation prior to submission to the approving authority.

e. Deviations are valid for one year.

f. Deviations will not be applied to other federal agency directives such as airspace or water traffic requirements.

g. Major Commands and Marine forces may communicate directly with the Army Training and Doctrine Command, Command Safety Office for technical information and guidance on risk management.

1-5. General policy.

a. The PCMS Range Operations:

(1) The control center for all ranges, Training Areas (TA), and Drop Zones (DZ) is the PCMS-RO (BLDG 300) at 503-6130/6124 and radio at Frequency Modulation (FM) 30.300 MHz, alt 39.600 MHz, or Base Support Trunk Radio System (BSTRS) Motorola Radio (RNG OPS or PCMS-RO channels).

(2) All personnel must obtain both permission and a downrange pass from the PCMS-RO to enter the downrange area and any training facilities controlled by the PCMS-RO. The fact that a range is not scheduled will not be construed as authority to enter the SDZ area. Trails immediately adjacent to the SDZ area boundaries are considered as part of the SDZ area.

b. The PCMS communications.

(1) Units occupying a range or TA will maintain continuous positive radio communications with the PCMS-RO. Radio checks will be made at least every hour. If communication is lost, firing or training will cease (check) fire until communications can be re-established with the PCMS-RO. Radios are provided on certain ranges.

(2) Targets, target materials, range flags, night firing lights, keys, and other necessities for Range Operations will be inventoried by the using unit and PCMS personnel, prior to the scheduled starting time for the range.

(3) Upon the completion of training, units will inventory all equipment with the PCMS-RO inspector, following the completion of scheduled firing.

(4) Units are responsible for the replacement or transfer of funds to the PCMS-RO for damaged, destroyed, or lost range equipment (e.g., range flags, shovels, fire beaters, generators, batteries, target lifters, chargers, light sets, etc.).

(5) It is the Units responsibility to procure portable latrines. For use on all ranges, MOUT sites and TAs down range. There are no latrines at any of these sites on PCMS.

c. The PCMS-RO signs and markers:

(1) SDZ, range guard, natural resource protection, and other safety signs are placed downrange for the warning of all personnel to prevent entry into SDZ areas and other restricted areas. These signs will not be by-passed unless specific approval is obtained from the PCMS-RO.

(2) Commanders will ensure all personnel are instructed not to remove, relocate, or damage range, safety, and natural resource protection signs.

d. Ranges are numbered in a systematic fashion to provide ease and simplicity of identification and location.

e. Units will request ranges, TAs and facilities from PCMS-RO with knowledge that training priority is established by 4ID, G3. Firing ranges, facilities and TAs will be scheduled as follows:

(1) Units will schedule ranges, training facilities, and TAs using Range Facility Management Support System (RFMSS) through their S3, Land and Ammunitions Representatives, or through the DPTMS, Reserve Component Coordinator. The request will be reviewed by the unit's brigade or regiment and sent forward to 4ID, G3 for de-confliction. Requests will then be forwarded to the PCMS-RO for final processing and will be approved, disapproved, or conditional-reserved for prerequisites, designated by the PCMS-RO. Once approval is given by the PCMS-RO, units must get a copy of the request summary from their S3. Units must have a copy on site of the approved request summary annotating the approved weapons/ammunition for that facility.

(2) The Army Reserve, Army National Guard, and any other non-military organization not assigned to FC will submit requests through the DPTMS, Reserve Component Coordinator to the PCMS-RO. The DPTMS, Reserve Component Coordinator will then submit the request using the RFMSS Program. Active military units not assigned to the installation will submit requests directly through the 4ID, G3. Units with a lower priority will be considered for ranges, and TA requirements after priority units.

(3) Ranges that are designed for maneuver live fire training require the using unit to conduct a range walk with the PCMS-RO prior to having the request approved. Units will provide a copy of the scenario and the risk assessment to the PCMS-RO. Range requests submitted for these type of ranges will be placed in a conditional-reservation for safety until completion of the range walk. Units will coordinate range walks through the PCMS-RO at 503-6115 or 6124.

(4) TA requests submitted through RFMSS must have a clearance plan completed by the unit's Maneuver Damage Control Officer coordinated with the PCMS-RO before final approval. TA clearance plans are an agreement that the unit will clear all areas with the PCMS-RO after the completion of training. TA clearance plans must be submitted to the PCMS-RO at least five working days prior to the start of training. Failure to submit a clearance plan will result in the units request for the TAs to be disapproved. Units failing to clear TAs as scheduled by their clearance plan will result in the unit being denied access to other training facilities.

h. Opening of scheduled facilities:

(1) Inspect range for serviceability and cleanliness; report any deficiencies to the PCMS-RO.

(2) Ensure weapons are inspected and cleared onto the range.

When a unit occupies a range, or any other training facility, the unit will call the PCMS-RO on a radio using FM 30.300 MHz or 39.600 MHz, Base Support Trunk Radio System (BSTRS), or using the radio provided in the control towers and report their presence on the facility. Establish radio communication (make a radio check) and request an "opening cold" time from the PCMS-RO.

(3) Use FC Form 5-1-E (Appendix B) and FC Form 5-2-E (Appendix C) when opening and closing ranges or training facilities.

- i. A visual inspection of the SDZ area is conducted before firing commences.
- j. When a unit has completed live firing and prior to leaving the range, the unit will:
 - (1) Check weapons and tubes to ensure they are clear of ammunition.
 - (2) Verify that LASERs are covered and power is off.
 - (3) Replace targets if required. Police the range and FPs.
 - (4) Conduct shakedown inspection of personnel and vehicles for ammunition.

k. Units will submit a memorandum with a dig overlay indicating all downrange excavations to the PCMS-RO for approval. Unit's memoranda will include the type of digging to be conducted (e.g., heavy equipment or e-tool), coordinates of the proposed excavations, and the dimensions of the site. The request will then be forwarded to the Directorate of Public Works (DPW), Cultural Section to ensure the site has been surveyed for possible cultural sites. Once the review has been completed, final approval will be granted by the PCMS-RO. All emplacements (e.g., foxholes and any other excavations) on ranges, or TAs will be dug only as necessary for tactical realism or essential training and will be filled in by the using unit prior to leaving.

l. All broken targets and range equipment will be exchanged by the using unit after firing, targets will be replaced if necessary, and all targets and pit equipment will be stored in the PCMS, Range Target Building.

m. A PCMS-RO representative will clear the using unit from ranges within 30 minutes. The Officer in Charge (OIC) or unit representative (E-6 or above) will remain on the range until cleared by the PCMS-RO, Range Inspector.

n. When ranges are used at night, a police call and inspection will be made the following morning no later than 0730.

o. Units leaving an area improperly policed will be required to return to that area within 24 hours after notification and police the area until it has passed inspection by the PCMS-RO.

p. No personnel or military vehicles are authorized to break or cross the boundary fence. No tactical vehicle traffic is permitted on any firebreak.

q. Barricades on numbered and lettered routes.

(1) Range barricades (temporary or permanent) placed on numbered or lettered routes for the purpose of SDZ delineation will not be removed, destroyed, opened, or by-passed.

(2) Units wishing to use barricades to close off maneuver TAs must have the locations first approved by the PCMS-RO.

(3) Units will only employ manned barricades on numbered and lettered routes. It is prohibited to use any type of wire or cable booby traps, craters, rocks, logs, etc. Unit barricades will not obstruct the passage of official emergency vehicles.

1-6. Responsibilities.

a. The 4ID, CBRN Office is responsible for submitting fog oil and synthetic graphite usage reports to the DPW, Environmental Air Program.

b. The DPW:

(1) Assists in the upgrade of ranges and TAs as required.

(2) Cuts grass or weeds on range facilities.

(3) Semiannually grades the fire breaks. Specific times will be coordinated with the PCMS-RO.

(4) Inspects and maintains downrange pump houses, wells, and water lines.

(5) Repairs and upgrades routes and tank trails as required.

(6) Repairs and maintains real property assets IAW the FC, Base Operations contract and Repair and Utility Self-Help Programs.

(7) Implements hunting and fishing programs IAW FC Reg 200-6 (Wildlife Management and Recreation) in coordination with the PCMS-RO.

(8) Prepares the environmental documentation IAW FC Reg 200-1 (Environmental Management and Protection).

(9) Sterilizes grass and weeds as requested by the PCMS-RO.

(10) Coordinates through the PCMS-RO prior to conducting any maintenance on TA's or range facilities.

c. The 4ID, G3 will establish the priority of use for all ranges, and TA's.

d. The PCMS-RO:

(1) Provides assistance to using units.

(2) Provides targets for using Unit.

(3) Controls, coordinates, and schedules all ranges and TAs used at PCMS.

(4) Coordinates range clearance with using units.

(5) Publishes firing notices using RFMSS.

(6) Controls downrange access of the roads and trails. Off installation directed movements are controlled by the Installation Transportation Officer Ft Carson.

(7) Inspects ranges and TAs for cleanliness and surveys natural resources for damage prior to departure of using units. Informs 4ID, G3 of any unit's failure in its police and range restoration responsibilities.

(8) Establishes, monitors, and operates the range safety communication nets and responds to calls for assistance.

(9) Monitors and controls aircraft entering restricted airspace, as specified in this regulation.

(10) Informs 4ID, G3 when orienting stations and Survey Control Points are damaged or missing.

(11) Maintains and repairs all firing ranges.

(12) Ensures real property and facilities are in serviceable condition.

(13) Renovates and redesigns ranges as necessary.

(14) Maintains facilities and range usage records.

(15) Coordinates the evacuation of injured personnel through the Medical Evacuation (MEDEVAC) hot loop, when units require a MEDEVAC helicopter from downrange TAs, ranges.

(16) Coordinates with Explosive Ordnance Disposal (EOD) personnel for the demolition of unexploded ammunition on the ranges.

(17) Coordinates with DPW for the location and maintenance of fire breaks and road networks.

(18) Maintains a current map of PCMS reservation depicting layers of TA's boundaries and the location of firing ranges, permanent barriers, and off limits areas.

(19) Constructs, installs, and maintains firing range designation signs.

(20) Reports downrange accidents. For accidents involving injury or death to personnel, PCMS-RO will inform the following FC offices:

(a) The MEDEVAC Hot Loop-FC/PCMS Fire and Emergency Services (FC/PCFES), Fort Carson Operations Center (FCOC), and Butts Army Airfield (BAAF).

(b) The Military Police Desk at 526-2333.

(c) The Installation Safety Office at 526-2123/2078; pager 389-9091 for non-duty hours.

(d) The parent unit of individual, to include battalion and brigade headquarters.

(e) The Logistic Assistance Office (LAO) at 526-2969, if weapons or equipment were involved.

(f) The Quality Assurance Specialist Ammunition Surveillance at 526-1795, if ammunition was involved.

(21) Reports downrange accidents. For accidents not involving injury or death to personnel, PCMS-RO will inform the following FC offices.

(a) The Military Police Desk at 526-2333.

(b) The Installation Safety Office at 526-2123/2078.

(c) The FCOC/4ID, G3 at 526-5914.

(d) Parent unit of the individual.

(e) The LAO at 626-2969, if weapons or equipment were involved.

(f) The Quality Assurance Specialist Ammunition Surveillance at 526-1795, if ammunition was involved.

(g) The Fire Dispatch.

(22) Reports malfunctions resulting in explosions, equipment damage, or injury to personnel to all appropriate agencies.

(23) Reports all downrange fires to the PCMS-FES.

(24) Advises BAAF when Fixed Wing aircraft are over the TA.

(25) Coordinates with DPW and the Installation Safety Office on major changes or construction on ranges.

(26) Coordinates with DPW, Environmental Division of any changes in existing or approved training operations or land use which could have a significant impact on the environment, and areas excessively damaged due to military training and observed intrusions into off-limit areas.

(27) Keeps the using unit informed of weather and road conditions.

(28) Fort Carson Range operations Instructs unit personnel on the use of RFMSS twice a month for more information call 719-526-9716.

(29) Ensures the Range Safety Certification Course provides instruction on the TAs where smoke and obscurants are authorized, as well as the procedures for employing smoke and reporting a smoke incident. Ensures that visiting military units or government agencies have read and understood the contents of this regulation if they are going to use smoke or obscurants.

(30) Reviews and approves range requests as appropriate.

(31) Provides current meteorological data for the training units.

(32) Ensures units immediately stop smoke and obscurants training if smoke enters or is about to enter the buffer areas.

(33) Conducts emergency notifications procedures and ensures Range Inspectors sign the unit's completed FC Form 11-E (Smoke Incident Report) if visible smoke crosses the installation boundary.

e. The Integrated Training Area Management (ITAM) Office:

(1) Integrates mission requirements and land maintenance to optimize training.

(2) Provides specialized map products, imagery, and geospatial analysis for military users and land managers.

(3) Surveys and analyzes land conditions; suggests land use recommendations to the command group.

(4) Rehabilitates land damaged by military training; develops projects designed to increase the availability of training land.

(5) Educates land users on reasonable and sound land use practices and environmental stewardship; communicates ways of taking care of the environment which can give them a tactical advantage.

(6) Assists in TA clearances, when necessary.

(7) Works with military units to repair maneuver damage.

(8) Coordinates the ITAM work plan with DPW.

f. The DPW, Environmental Division, Air Program:

(1) Tracks the total usage of fog oil and synthetic graphite at FC and PCMS.

(2) Notifies the Ammunition Supply Point (ASP) and the PCMS-RO or 4ID, CBRN Office before the permit limit is reached. This allows enough time to submit a permit modification to the state.

(3) Notifies the appropriate state and local agencies IAW the emergency notification procedures of this regulation.

g. The using unit:

(1) Reads this regulation and any other publication applicable to the operation being performed.

(2) Ensures commanders appoint qualified individuals to perform duties as OIC/RSO and LRSO (LASER Range Safety Officer) IAW DA Pam 385-63 (Range Safety). Battalion Commanders will ensure personnel are qualified or knowledgeable with the weapons system involved and that they possess a valid signed (Battalion Commander signature required) FC Form 1036 (Range Safety Card). Range Safety Cards are only valid for 12 months after the

date of issue. Individuals must attend another range safety briefing at FCRO to receive a new Range Safety Card.

(3) Ensures individuals appointed as OICs and RSOs of firing ranges, or any live-fire exercises will be present during training and will not be assigned any other duties during firing operations.

(4) Provides medical support IAW Chapter 2 of this publication.

(5) Appoints a certified ammunition handler. These individuals will not be assigned other duties.

(6) Polices the firing range from the major access road to the near edge of the SDZ or danger area.

(7) Ensures vegetation is neither cut nor removed from any range or TA. Destruction of or damage to trees is strictly prohibited and will be reported to the PCMS-RO as soon as practical and prior to clearing the TA.

(8) Ensures no alterations are made to the range facilities and government property is not defaced.

(9) Informs the PCMS-RO when use of a scheduled range is cancelled or when a delay of two hours or more will occur in opening time. Cancellation by telephone will precede cancellation through RFMSS by the unit S3 or designated representative. The using unit will be required to routinely notify the PCMS-RO of their training status relative to area usage; this will assist the PCMS-RO in providing for maximum multiple resource utilization.

(10) Removes all trash, brass, ammunition boxes, concertina wire, crates, and litter from ranges, and maneuver areas. Removes and disposes of contaminated Petroleum, Oil, and Lubricants (POL), garbage, trash, etc. from the cantonment area or designated facility.

(11) Provides the necessary personnel to operate the requested range.

(12) Prepares and submits necessary requests for the use of numbered ranges, TAs, and convoy clearances.

(13) Provides hearing protection (e.g., ear plugs) for all personnel, to include visitors.

(14) Notifies the PCMS-RO if the using unit determines the occupying range, needs to be cleaned up prior to occupation.

(15) Notifies the PCMS-RO prior to departure from a designated range, or TA.

(16) Maintains, at a minimum, two emergency MEDEVAC marking capabilities when in downrange areas (e.g., red smoke - primary means; florescent panel marker - alternate means). Vehicle head lights or other light devices will be used for night marking if requested by the MEDEVAC helicopter pilot.

(17) Places road guards at major crossings before attempting to cross roadways and during convoy movements.

(18) Establishes and maintains communications and conducts hourly communications check with the PCMS-RO. Radio set at FM 30-30MHz or BSTRS will be the primary means.

(19) Takes immediate action to restore any breakdown of communications with the PCMS-RO. All training operations will be immediately suspended until communications are restored.

(20) Reports all emergency situations/accidents to the PCMS-RO immediately.

(21) Ensures weapons are not fired outside of permanent limit markers.

(22) Informs personnel prior to their participation in range firing or tactical training, not to touch nor disturb Unexploded Ordnance (UXO) discovered on the reservation. All UXO will be marked and reported to the PCMS-RO. Personnel will evacuate the area at least a minimum of 300 meters and not approach closer than 5 meters to any UXO while marking its location. The PCMS-RO will have EOD clear UXO.

(23) Provides necessary cleaning materials for latrines and other range facilities upon completion of firing.

(24) Occupies ranges and TAs IAW the appropriate appendix of this regulation.

(25) Assigns barrier Noncommissioned Officers (NCO) (E-6 or above and range certified) for ranges with barrier plans IAW the Range Barrier, SOP.

(26) Ensures a Hot Time is received from the PCMS-RO prior to firing any weapons or pyrotechnics on training facilities.

(27) Ensures no vehicles maneuver on or within 100 meters of the boundary firebreaks.

(28) Briefs personnel on live-fire ranges to continuously observe for aircraft and to take appropriate action as required by the Range Special Instructions.

(29) Before firing, conducts a day/night safety briefing covering malfunctions of weapons and ammunition. The briefing must cover at a minimum, no handling of UXO and the inherent dangers, MEDEVAC/Casualty Evacuation (CASEVAC) procedures, and left/right limits of fire. See the Safety Brief in Appendix B of this regulation.

(30) Notifies the 4ID, G3 prior to scheduling a range or TA for classified use of equipment or material. The project/action officer must notify the 4ID, G3 of the following:

(a) Dates of employment.

(b) Location of range or TA.

(c) Classification level of equipment involved.

(d) Unit sponsoring the activity

(31) Ensures the unit RSO visually verifies that every weapon (including crew-served) has been inspected and cleared before going on the range and before departing the range using appropriate clearing methods IAW the applicable FM/TM.

(32) Submits a dig request IAW this regulation through the PCMS-RO prior to excavating (e.g., tank ditches, hull down position, etc.) downrange or in TAs.

(33) Ensures no training occurs within the restricted area

(34) Ensures unit personnel are briefed that areas within the installation designated as culturally protected areas are not tampered with or destroyed by maneuver.

h. The US Air Force (USAF), Air Liaison Officer:

(1) Coordinates all USAF Close Air Support (CAS) and reconnaissance aircraft requests with the PCMS-RO. Mission notification sheets (Notice to Airmen) will be provided to the PCMS-RO.

i. The BAAF, Commander:

(1) Ensures all aviators operating on PCMS are proficient in Air Route Traffic Control procedures.

j. The Army aviators:

(1) Ensure preflight planning includes:

(a) Current Flight Coordinating Center (FCC) firing data.

(b) High performance aircraft data.

(2) Ensure they are proficient in:

(a) The procedures for communications with the FCC.

(b) The procedures for flying corridor penetration.

(3) Contact the FCC prior to entry into the TAs to obtain an update on current firing data.

(4) Avoid unnecessary interference with wildlife resources.

k. The Directorate of Emergency Service:

(1) Enforces the hunting rules and regulations for PCMS.

(2) Submits annual control-burn plans to 4ID, G3 and the PCMS-RO for coordination and ensuring minimal impact on training.

(3) Provides speed and traffic enforcement on all MSRs and downrange areas.

1-7. TAs fires.

a. Prevention:

(1) The PCMS-RO will inform and update units downrange by radio, of current fire danger class code as information is received from the FC/PCMS-FES.

(2) Units will call the PCMS-RO to get updated fire danger information, prior to firing tracer ammunition or pyrotechnics.

(3) Fire-producing materials to include pyrotechnics will not be thrown from vehicles burn pans will be used at all times.

(4) Fires will not be intentionally started on ranges or other training facilities.

b. Fire danger levels:

(1) **LOW**. No restrictions; units will have firefighting equipment on site. Monitor the PCMS-RO for changing conditions. Units will immediately report all fires to the PCMS-RO.

(2) **MODERATE**. No restrictions; units will have firefighting equipment on site. Monitor the PCMS-RO for changing conditions and be prepared to suspend use. Units will immediately report all fires to the PCMS-RO.

(3) **HIGH**. Tracer ammunition will be restricted to specific ranges on a case by case approval from the PCMS-RO. Ground simulators (grenades/smoke) will be allowed only with the use of burn pans and all necessary firefighting equipment present. Mortar/artillery illumination and white phosphorous smoke is not allowed for use on PCMS. Training with any type of flame producing munitions or devices may be suspended by the PCMS-RO when wind gusts exceed 15 mph.

(4) **VERY HIGH**. Use of ANY tracers, flame producing pyrotechnics, simulators, demolitions on ANY ranges is prohibited if forecasted wind speeds are in excess of 15 mph. Use of ANY of these items for Critical Mission Requirements will be reviewed by a Fort Carson Range Officer on a case by case basis. Fires will immediately be reported to the PCMS-RO.

c. Fire reporting:

(1) Forest and brush fires, regardless of size, will be immediately reported to the PCMS-RO. The PCMS-RO will contact the PCMS-FES.

(2) The following information will be included in a fire report:

(a) Grid location and approximate size of fire.

(b) Type of fire (e.g., brush, vehicle, ammunition, etc.).

(c) The unit reporting the fire.

(d) What started the fire (e.g., live fire, pyro, fuel, etc.).

(3) The unit will provide a fire guide to guide fire fighters to the fire.

d. Unit firefighting:

(1) Under no circumstances will the unit go downrange or enter the SDZ area to fight a fire without prior approval from the PCMS-RO.

(2) It is the responsibility of the commander or OIC to stop all firing and training endangered by the fire and to report the fire to the PCMS-RO.

(3) Firefighting activities will be directed by the senior officer or NCO present until relieved by the PCMS-FES.

(4) Upon arrival of fire fighters, the senior fire fighter will assume responsibility for supervising firefighting. The unit OIC will render all available assistance and the fire will be thoroughly extinguished prior to the unit departure. If the fire moves into the SDZ, the unit will continue to monitor the fire until it is out. Report this to the PCMS-RO. Units will not depart the fire site without the PCMS-RO's approval.

1-8. Construction or modification of training facilities.

a. Requests for construction or modification of ranges and TAs will be coordinated with the PCMS-RO.

b. No modifications to ranges or other training facilities will be made without the approval of the PCMS-RO.

c. No modifications will be made to target operating devices by using units.

d. Facilities which require maintenance will be immediately reported to the PCMS-RO for repair or replacement. Under no circumstances will the using unit attempt to repair training facilities, unless directed to do so by the PCMS-RO.

e. Numbered and lettered routes will not be booby trapped, barricaded, or cratered without the approval of the PCMS-RO.

1-9. Destruction or damage of training facilities.

a. It is prohibited to destroy, remove, reconstruct, or damage permanent or temporary facilities, materials, or equipment at any training facility.

b. Vehicles will not be driven across ranges, except on constructed roads or lanes.

c. Roads and tank trails that are barricaded by other units for live-fire will not be bypassed or opened. Barricades will not be removed or damaged.

d. Barricades must be removed from roads and trails immediately after the exercise.

e. Units are responsible for damage to ranges and TA improvements. When damage occurs, the following measures will be taken.

(1) The PCMS-RO will notify the responsible unit and 4ID, G3. The PCMS-RO will request and coordinate an Estimated Cost of Damage from DPW.

(2) If there is disagreement between the PCMS-RO and the responsible unit, 4ID, G3 will decide or advise the Chief of Staff and the Garrison Commander.

(3) Once the responsibility and repair costs for damages have been determined, and reviewed by GRM & SJA reimbursement will be transferred from the responsible unit to ITAM for repairs at PCMS.

1-10. Destruction of natural resources.

- a. It is prohibited to cut, destroy, or damage any standing trees or bushes.
- b. Only established roads and trails will be used for wheeled or tracked traffic in reforested and seeded areas.
- c. Defensive positions may be prepared when required. Units will fill in each position upon departure from the area. Excavations must be approved by the PCMS-RO.
- d. POL spills in excess of five gallons, or any quantity into a stream or impoundment must be reported to the PCMS-RO.
- e. Damage to historical archaeological resources must be reported to the PCMS-RO. No arrow heads, artifacts, or other cultural remains will be removed from the ground surface. Do not deface or vandalize rock art. Any historical archaeological resources discovered during a training exercise which have not been previously identified must be reported to the PCMS-RO.
- f. Seibert Stake areas are OFF LIMITS to vehicles. Seibert Stakes are used to mark areas that are hazardous to vehicle travel or to protect environmentally sensitive areas. Red and yellow reflective Seibert Stakes are placed around the perimeter of areas where vehicle travel is prohibited. If a vertical black stripe is visible, YOU ARE IN A PROTECTED AREA.
- g. When possible, vehicles will not be driven in wet or dry drainages.
- h. Commanders will ensure nesting, bedding, and habitats of all species of wildlife are not unnecessarily disturbed. No animal may be captured, killed, taken, wounded, injured, or harassed for any reason unless the individual is engaged in an authorized hunting activity. Violations will be immediately reported to the PCMS-RO.
- i. It is prohibited to burn or burying refuse material. This material will be disposed of at the trash transfer point or by established methods.

Chapter 2 Safety

2-1. General.

- a. The safety requirements and procedures contained in this regulation will be enforced and verified by inspecting officers of this headquarters during visits to ranges and training facilities. Failure to comply with these requirements or procedures will result in the unit receiving unsatisfactory training inspection reports and/or stoppage in training, until deficiencies are corrected or if any safety violations warrant additional training. Safety violations will terminate the certification of the OICs and RSOs.
- b. Each weapon will be inspected by the RSO or a designated individual to verify the chambers and barrels (tubes) are free from obstructions. During prolonged interruptions of

firing, an inspection will be made to ensure no obstructions are in the barrel before reinitiating firing.

c. The Range OIC will possess a copy of this regulation, DA Pam 385-63, the approved PCMS-RO range SDZ overlay the approved range request, the applicable Field Manuals (FM), Technical Manuals (TM), Training Circulars (TC), pamphlets, and firing tables.

d. Firing will cease when wind velocities are sufficient to cause damage to targets or target operating devices, or constitutes a fire hazard. Depending on direction, wind gusts of 25 mph (21 knots) are generally sufficient to cause damage or fire hazard. The Range OICs will determine when to "cease (check) fire" due to wind conditions, unless directed by the PCMS-RO.

e. The location of any discovered UXO will be marked by a stake with engineer tape and reported to PCMS-RO. A written UXO report will be completed by units firing dud producing ammunition. Common UXO producing ranges have a preformatted report available at the PCMS-RO (e.g., M203, MK19, AT-4, etc.). The PCMS-RO will be advised, in writing, of any UXO fired by the using unit.

f. The PCMS-RO will advise all units of approaching severe weather (e.g., lightning, high winds, tornados etc.) which can be extremely dangerous to personnel standing in the open or adjacent to military equipment. Commanders will take appropriate measures to prevent unnecessary exposure of troops to severe weather dangers. Some precautions are:

- (1) If alone in the open, lay on the ground.
- (2) If next to a vehicle, get inside. Do not lay under a vehicle.
- (3) Do not stand against telephone poles or near a tree.
- (4) A group caught in a flat open space or on a bare hilltop should not huddle together, but scatter to reduce the odds of being struck by lightning.
- (5) Buildings, especially those with metal walls or frames will afford some protection. Personnel in buildings should avoid standing near high chimneys, outer walls, water pipes, wiring, or electrical appliances.
- (6) When personnel are assembled in bleachers they should be rapidly dispersed.

g. When using LASERs or other high intensity optical sources, the OIC will ensure information required by AR 385-10 (The Army Safety Program), AR 385-63, and Technical Bulletin (TB) MED 524 (Occupational and Environmental Health: Control of Hazards to Health from LASER Radiation) is disseminated to personnel needing the material.

2-2. Maneuver live fire procedures.

a. All maneuver Range OICs will publish an Operations Order (OPORD) with operations graphics and a risk management worksheet. The OPORD and graphics will be kept on file by the PCMS-RO for six months after the range operation.

b. The Range OIC or RSO will provide the PCMS-RO an approved OPORD with Graphics no later than 14 days prior to using the ranges.

c. The Live Fire Exercise (LFX) Certification ensures the company and battalion leadership have implemented the necessary procedures for safe and realistic live fire training.

(1) Static Ranges do not require range certification by the Battalion Commander. Static Ranges are defined as ranges that have a fixed firing line and do not involve movement (e.g., qualification/marksmanship ranges, demo areas, MPs, linear ambushes with no assault, etc.). Units will conduct the following actions for static ranges:

(a) Company Commanders will certify all Static Ranges by personally approving the scenario and walking the range to ensure proper set up.

(b) Conduct a Leader's Tactical Exercise Without Troops (TEWT) to review the concept, safety, and range constraints.

(c) Conduct a Risk Management Assessment and Safety Brief for all personnel.

(2) Maneuver Ranges require range certification with the Battalion Commander or Battalion, S3. Maneuver Ranges are defined as ranges that involve fire and movement and/or maneuver (e.g., react to contact, raids, trench lines, shoot houses, etc.).

(3) Company Commanders will certify LFXs conducted at the squad level or lower. Company Commanders will follow the same procedures for certifying the scenario as the Battalion Commander. Risk assessments for these events will be submitted to the S3 Training no later than two weeks before the training event.

(4) The Battalion Commander or Battalion, S3 will certify all maneuver LFXs conducted at the platoon level or above and all Military Operations on Urban Terrain, shoot house LFX. This also includes scout LFXs. The range certification will highlight the following:

(a) Target scenario/enemy target array. The Company Commander or designated platoon leader will conduct a terrain walk from the line of departure through the ranges' limit of advance, to ensure the scenario and target array are consistent with the range fans.

(b) The Battalion Commander or designated representative will validate the units' plan for direct fire to ensure compliance with the established SDZ.

(5) Risk assessments for these events will be submitted to the S3 Training no later than two weeks before the training event.

(6) Once the exercise has been certified by the Battalion Commander or designated representative and the PCMS-RO, changes to the scheme of maneuver for blank and live iterations, target placement, or plans may not be made without the Battalion Commander or designated representative approval and the approval of the PCMS-RO.

d. Rehearse.

(1) The Range OIC and RSO will conduct a full-dress rehearsal no later than 24 hours prior to occupation of the range.

(2) Approved rehearsal sequences are as follows:

(a) Safety TEWT - Leader TEWT - Day blank fire - Day live fire - Night blank fire - Night live fire.

(b) Safety TEWT - Leader TEWT - Day blank fire - Night blank fire - Day live fire - Night live fire.

(c) All non-standard sequences will be approved by the Battalion Commander prior to the training event.

(3) Safety TEWT. The purpose is to validate the range safety plan and to walk the Safety Officers (SO) and Observer Controllers (OC) through the scheme of maneuver, the SDZs and Minimum Safe Distances (MSD) associated with each firing location. The SOs, OCs, and the certifying commander will walk through the event IAW the LFXs scheme of maneuver and discuss events at each engagement. The following guidelines apply:

(a) The SOs and OCs will know the left and right limits of elements.

(b) Brief all elements pertaining to safety from the Range Certification Checklist during the safety TEWT.

(c) The commander will validate the risk assessment during this process. At each location the commander will discuss with the SO and OIC potential hazards and controls they will implement to reduce risk. Any new hazards identified will be incorporated into the matrix.

(d) The medical plan and SO/OC communication plan will be validated and tested during this certification. This validation will include, ensuring that communications can be established with the front-line ambulance and procedures for AIR MEDEVAC are followed IAW the FC/PCMS MEDEVAC SOP.

(e) This TEWT will be a separate event prior to the leader TEWT, so range safety personnel, the SOs, and OCs are well versed when they participate with unit leaders in the Leader's TEWT.

(f) Prior to the Safety TEWT, all objectives will be built with targets in place. If this is not possible, units will lay out objectives using engineer tape and e-type targets will be propped up in place.

(4) The Leader's TEWT develops leaders and validates the tactical plan; to include, the MSDs, SDZs, and risk assessment matrix. It is conducted by the commander with all leaders, OCs, and SOs participating in the exercise.

(a) Brief all elements from the range certification checklist during the Leader's TEWT.

(b) TEWTs will be conducted within 24 hours of executing the maneuver LFX.

(c) The Leader's TEWT is a range/terrain walk of the scheme of maneuvers, stopping at each critical and potential firing locations to discuss the tactical action executed at each location, and the integration of the safety plan developed through the Safety TEWT into the tactical plan (e.g., MSD, SDZ, left/right limits, critical measures, firing units, etc.).

(d) As in the Safety TEWT, the Leader's TEWT will discuss the medical and communication plans for the tactical training unit and the range safety supporting medical plan.

(e) The Leader's and Safety TEWTs finalize and confirm the risk assessment process and the final risk assessment matrix.

(5) Rehearsal requirements and standards.

(a) There will be no more than a 24 hour gap between blank and live fires. This can be extended to 48 hours with Battalion or Brigade Commander approval.

(b) Blank fire exercises will be conducted on the same terrain, range, or shoot-house and follow the same scenario as the LFX. Deviations require a recertification through another blank fire exercise.

(c) All Soldiers must participate in blank fires until certified as "trained and safe," by the commander and 1SG prior to executing a live fire. The chain of command certifies that the Soldier is qualified to operate the weapon.

(d) Use of similar terrain for ambush LFX rehearsals requires the approval of the Battalion Commander.

(e) Maximize the use of Multi Integrated LASER Engagement System (MILES) equipment during the blank fire phase. This provides an excellent training aid to enforce proper movement techniques and fire control procedures. The final MILES force-on-force rehearsal must replicate the live fire target array.

e. Execute the training:

(1) Maneuver LFX level of integration.

(a) Commanders and 1SGs will be present at all platoon, squad, section, fire team, and buddy team LFXs.

(b) A field grade officer (O-4 or above) will be present at all LFXs higher than squad level.

(c) The Battalion Commander will be present at LFXs with two or more platoons participating or at a Combined Arms Live Fire Exercise, including a line company supported with artillery, CAS, mechanized, or aviation assets.

(2) If an OIC/RSO is decertified by the Battalion/Brigade Commander or the PCMS-RO for safety reasons, that individual or one assuming the duties must complete the entire range certification process prior to running a range.

(3) If a safety violation is committed by any member of the squad during a blank or LFX, the event is stopped and an “on the spot correction” is made. The entire squad is decertified and returned to the rehearsal site to be recertified.

f. Live fire shoot-house safety requirements:

(1) All personnel participating in range operations must receive a Safety Briefing prior to operating the range. At a minimum, personnel must receive a Safety Briefing every 24 hours.

(2) Soldiers must qualify, both day and night, on their weapon used in the LFX.

(3) Soldiers, including OCs and safeties, will wear Individual Body Armor with Small Arms Protective Insert plates, ear protection, and eye protection during all LFXs.

(4) Treat all weapons as if they are loaded at all times.

(5) Never point a weapon at anything you do not wish to engage or destroy.

(6) Positively identify your target before engaging. Know what is in line of fire and behind it.

(7) Carry your weapon at the ready and on safe, with the trigger finger extended along the trigger housing, except when engaging targets. Return your weapon to safe when all targets in the room have been engaged; do not wait for a “status check” or a “room clear”.

(8) Shooters will use the “low ready” carry position; that is, muzzle angled slightly down below the line of sight. When stacking 2, 3, or 4, you may use a “high ready,” if it facilitates their entry into the room. Shooters will insure they do not flag their teammates or OC at any time.

(9) Never shoot at a target you have passed.

(10) If you have a malfunction, continue moving into the room and toward your point of domination until you clear the fatal funnel (doorway/entry point) and allow room for your teammates to enter. Drop to one knee and announce your situation so your teammates know you are unable to cover your sector. Correct the malfunction and, if it is safe, continue to fire/clear your sector from the kneeling position. After the room is clear, announce that you are “coming up”. Only come up after your teammates have acknowledged.

(11) Three of the most vulnerable times for unsafe acts are when Soldiers are stacking for entry, when loading and clearing weapons, and when transitioning between blank and live fire iterations and back again. Leaders and Soldiers will not use weapon-mounted gun lights to visually inspect each other or the chambers of weapons. They will use another light source.

(12) The team/squad leader ensures all weapons are cleared at the end of each blank or live fire iteration. Leader participants will have their weapon cleared by someone else.

(13) At the end of each live fire phase of training, leaders conduct a visual inspection of weapons and ammunition pouches to insure no live ammunition is inadvertently carried over to blank fire training. Leader participants are inspected by someone else. Be especially cautious when moving from close quarters and short range marksmanship to blank fire training.

(14) During explosive breaching, Soldiers, OCs, and observers will be outside the approved MSD of the charge being used, and will have a physical barrier between them and the charge (e.g., wall, corner, blast shield, etc.).

(15) Only one OC will move with the lead clearing team at ground level. The OC will follow the trail-man in the team (usually #3 or #4) and position themselves so as not to interfere with the actions of the clearing team.

(16) OCs may observe from inside rooms to be cleared only during dry fire or blank fire force-on-force training. OCs will not be pre-positioned in rooms during blank fire validation or during live fire iterations.

(17) The senior OC or leader on site will determine the maximum number of observers permitted on the catwalk at one time not more than four. There will be no observers on the catwalk above or in the immediate vicinity of the breach/entry site during a demolition breach or during live fire.

g. Ammunition issue, handling, and safety considerations.

(1) All blank and live ammunition will be physically separated at the ammunition point with a barrier.

(2) To eliminate problems with inadvertent mixing of ammunition, Soldiers will load their own magazines. They are not issued pre-loaded magazines from the ammunition point.

(3) Loose blank and live ammunition that has been turned in will be kept in separate containers.

(4) Ammunition Shakeout Areas, where magazines are loaded and unloaded, will be designated and marked using different areas for blank and live ammunition. These areas may be lit with generator powered drop lights.

(5) Squad Leaders/team leaders will know the number of magazines each Soldier has before going downrange and will account for all magazines before and after each iteration.

(6) When vehicles are used to transport Soldiers during live fire operations, the vehicle commander will inspect the troop carrying compartment before and after each iteration for ammunition and magazines.

(7) Leaders will check each other's magazines before and after each iteration. No leaders will inspect themselves for proper ammunition.

(8) Crew-served weapons will be cleared IAW the appropriate FM or TM and will be verified "safe and clear" by the RSO, prior to any weapon leaving the range.

h. Conduct an After Action Review (AAR).

(1) The OIC, SO, commander, and OC will conduct the AAR. Company level AARs will include squad leaders and above, and platoon and below. AARs will involve the entire unit when feasible.

(2) The safety team for the training will conduct a safety AAR after the training. The safety parameters will be discussed to determine if they provided a safe training environment during the LFX.

i. Retrain to standard as necessary until the standard is met. This requires planning time and resources to retrain on critical tasks.

2-3. Standard live fire procedures.

a. Personnel on the firing line or in firing positions will wear ear plugs or combat vehicle crewman helmets during firing.

b. Weapons will be cleared prior to entry on any training facility. Weapons will be cleared prior to removal from the firing line or position. Before leaving the firing line, the RSO will ensure weapons are cleared using "clearing barrels" or rodding of weapons off the range IAW the appropriate FM or TM.

c. When a reasonable doubt exists involving safety, firing will be suspended regardless of circumstances.

d. Verify the SDZ area is clear prior to opening fire.

e. Kevlar or combat vehicle crewman helmets will be worn on all firing ranges during firing exercises. Units not in uniform IAW FC Reg 350-1 (Fort Carson Training) must have a Memorandum of Instruction signed by the Battalion Commander explaining the uniform requirements for the training.

f. A red flag will be flown from the range flag pole on ranges during firing to warn personnel that a firing area is in use. The red flag will be lowered during prolonged non-firing periods (e.g., when meals are being served on the range; when directed to "cease (check) fire" by PCMS-RO; when communications is down, etc.). A red flag will not be flown during the conduct of non-firing problems. Red flashing warning lights will be operated on the ranges in lieu of the flag during hours of darkness.

g. The range radio will be continuously monitored. In the event of a breakdown of communications between a firing range (position) and the PCMS-RO, a mandatory "cease (check) fire" will be initiated until communications are reestablished. Communications checks will be made with the PCMS-RO each hour during firing/hot status.

h. Be prepared to "cease (check) fire" immediately upon notification from the PCMS-RO.

i. The OIC and safety personnel will read and comply with the following:

(1) AR 75-1 (Malfunctions Involving Ammunition and Explosives).

(2) AR 190-11 (Physical Security of Arms, Ammunition, and Explosives).

(3) DA Pam 385-63.

(4) TC 25-8 (Training Ranges) and the appropriate FMs and TMs.

(5) TB MED 524 (Control of Hazards to Health from Laser Radiation).

(6) FC/PCMS MEDEVAC SOP.

j. Prior to leaving a range, units will ensure no live ammunition is removed from the range by unauthorized personnel. The Range OIC will conduct a shakedown inspection.

k. The RSO/RSNCO or LRSO/LRSNCO will be aware of the safety aspects of the weapon, weapons system, and the range.

l. No firing of any weapon, LASER, or exploding of any demolitions will be conducted, without a designated RSO/RSNCO or LRSO/LRSNCO, physically at the site where the firing is conducted.

2-4. Accident reporting procedures.

a. All accidents involving weapons, ammunition, equipment (e.g., vehicles), or if assistance to evacuate an injured individual is required, MUST be immediately reported to the PCMS-RO using a radio (FM 30.30/BSTRS) or telephone at 503-6130. The first individuals at the accident site will accomplish the following:

(1) Request MEDEVAC for injured personnel IAW Paragraph 2-5 of this regulation.

(2) Ensure the injured individuals receive the necessary first aid.

(3) Monitor the radio continuously and report needed information to the PCMS-RO until medical assistance arrives.

b. The unit commander will secure the accident site. Do not allow anyone to move, touch, or disturb any debris or equipment.

c. Training will be suspended until investigation is completed. Only the PCMS-RO can release units from an accident site.

d. Minor non-life threatening injuries requiring evacuation to a medical treatment facility that does not require additional assistance from PCMS, EMS will be reported to the PCMS-RO.

2-5. MEDEVAC procedures.

a. MEDEVAC of injured personnel by helicopter is available to units. This service is available for all injuries, but should only be used for injuries where a rapid evacuation to the hospital is required due to the extent of the injuries, or when ground transportation is unsuitable because of the distance to the hospital. During training, units will possess and read the FC/PCMS MEDEVAC SOP.

b. A unit requiring MEDEVAC will call the PCMS-RO by radio on FM 30.30 MHz; alternate FM or by BSTRS radio on the RNGOPS/Admin channel. If you receive no answer, then call the PCMS-RO at 503-6130 or PCMS 503-6124. Units will call 911 if unable to contact the PCMS-RO.

c. Units will provide the following MEDEVAC information from the Range Safety Card:

(1) Location (10 digit grid).

- (2) Frequency/Call sign.
 - (3) Number of patients by precedence: Urgent, Priority, etc.
 - (4) Special equipment required (e.g., resuscitator, hoist, etc.).
 - (5) Number of patients by type: Litter, Ambulatory etc.
 - (6) Number and type of wound or injury.
 - (7) How landing zone is marked (e.g., red smoke, panel markers, headlights for night, etc.).
 - (8) Patient nationality and status.
 - (9) Description of terrain.
- d. Requesting unit will remain on FM 30.30 MHz/BSTRS radio for PCMS to provide information and to communicate with the MEDEVAC helicopter. All other radio traffic on these nets will immediately cease to allow the MEDEVAC.
- e. The PCMS-RO will initiate the MEDEVAC "Hot Loop" and relay initial information to the FCFES, FCOC, and BAAF.
- f. The PCMS-RO will call a "cease (check) fire" of any units firing on a range that could endanger the MEDEVAC mission. The PCMS-RO will call a "cease (check) fire".
- g. The PCMS-RO will inform the requesting unit when MEDEVAC is airborne and relay the aircraft's identity (e.g., "MAST 70 - Airborne"). The PCMS-RO will also inform the aircraft to communicate with requesting unit on FM 30.30 MHz/BSTRS radio for PCMS.
- h. The AERO MEDEVAC will fly to the pickup zone, then directly to the hospital by the most expeditious route possible.
- i. If the MEDEVAC helicopter must fly over any (Ranges), all firing will be stopped until the aircraft is clear of the SDZ area.
- j. After the MEDEVAC mission is completed, the PCMS-RO will obtain the following from the requester:
- (1) Name of injured personnel.
 - (2) Grade of injured personnel.
 - (3) Last four of social security number of injured personnel.
 - (4) Weapons and ammunition data, if involved.
- k. MEDEVAC pilots will keep the PCMS-RO informed of their location from start to finish during a MEDEVAC operation.

2-6. Medical support requirements.

a. The PCMS medical requirements.

(1) Brigade size units are required to have a brigade medical staff and MEDEVAC capabilities on site. Battalion size units will have a Physician's Assistant and ambulatory vehicle for CASEVAC. Units conducting LFXs will have a MEDIC, updated aid bag, communications, and a dedicated CASEVAC vehicle on each range.

(2) Units conducting any training east of the 92 Grid Line on the PC Map are recommended to have a qualified MEDIC present for all training, this is due to the travel distance to medical services from these areas.

(3) For areas west of the 92 Grid Line on the PC Map, commanders will complete a risk assessment for training and determine the level of medical support required for the mission.

(4) A dedicated CASEVAC vehicle with radio communications will be present during training. Unit CASEVAC vehicles will only be used to transport patients to a PCMS ambulance transfer location designated by the PCMS-FES.

(5) Units training with 0-chlorobenzalmalononitrile (CS) gas, Hexachloroethane-Zinc (HC) smoke grenades, will have at the site, a trained MEDIC and a suitable evacuation vehicle (designated specifically for evacuation and capable of handling a litter).

2-7. Erratic firing.

a. Any projectile that lands outside safety limits requires immediate investigation to determine the cause and then make the necessary corrections.

b. Anyone detecting rounds landing outside or near the boundary of a danger area will:

(1) Place the responsible unit in "cease (check) fire".

(2) Report the incident to the PCMS-RO at FM 30.30 MHz/BSTRS or at 503-6130/6124. The report will include:

(a) Date and time erratic round was observed.

(b) Injury to personnel.

(c) Damage to equipment.

(d) Number of rounds.

(e) Location of rounds.

(f) Location of observer.

(g) Name and unit of person reporting.

c. The PCMS-RO will:

(1) Order "cease (check) fire" on appropriate ranges.

- (2) Analyze available facts and data to determine responsible unit.
 - (3) Require technical service investigation if ammunition or weapons malfunction is suspected.
 - (4) Report incident to 4ID, G3, the Installation Safety Office, and the FCOC.
 - (5) Allow units determined to be safe, continue to fire.
- d. The OIC of a suspect or known unit will:
- (1) "Cease (check) firing."
 - (2) Immediately have the crew fall in at the rear of their pieces and ensure all pieces remain as laid. No ammunition will be disturbed until clearance has been given by the Installation Range Manager and the Investigating Officer.
 - (3) Report the incident through the unit chain of command to the Commanding General (CG).
 - (4) Submit a written report of the investigation IAW AR 15-6 (Procedures for Investigating Officers and Board of Officers) through the PCMS-RO; through 4ID, G3; to the CG within 24 hours.
- e. After the investigation, the first 0-6 in the chain of command will request clearance from the CG to resume training.

2-8. Airspace safety.

a. The OIC or RSO will brief all personnel on the range to continually watch for aircraft. If aircraft are observed flying into the danger area in front of firing lines then a "cease (check) fire" will be called. The PCMS-RO will be informed of the following details of the aircraft.

- (1) Markings.
- (2) Type.
- (3) Numbers
- (4) Color.
- (5) Direction of flight.
- (6) Time.

b. The Flight Coordinating Center (FCC)

(1) The Flight Coordinating Center (FCC) is operated by Butts Army Air Field (BAAF) operations personnel for the management of airspace over FC and PCMS exclusive of the BAAF traffic area. The FCC radio call sign is "Butts radio".

(2) The FCC will provide advisories on all Army and Air Force air traffic and weapons firing to all airspace users.

(3) The FCC will use FM and Very High Frequency (VHF) to provide flight advisories. A land line between the FCC and the PCMS-RO will be used to pass range information. An additional FM radio turned to the PCMS-RO will be monitored by the FCC.

(4) Radio frequencies are as follows:

(a) FM 30.30 MHz as the primary; FM 39.60MHz as the alternate; call sign: "Range Control".

(b) FM 38.35 MHz; call sign: "Butts radio".

(c) VHF 138.150 MHz; call sign: "Butts radio".

(5) Weapons Firing will "cease (check) fire" in an emergency. When aircraft missions have been scheduled and have authorized priority over firing, a "cease (check) fire" will be requested from the FCC to the PCMS-RO. Only firing that interferes with the route of the flight will be stopped. Under the following circumstances aircraft have precedence:

(a) Aircraft experiencing a maintenance or weather emergency.

(b) MEDEVAC missions.

(c) Command and control aircraft of commanders (O-6 or above).

(d) Aircraft range sweeps conducted in SDZs for specific ranges.

(6) To provide for maximum use of the airspace by all users, the following procedures will be in effect:

(a) Aircraft will contact the FCC prior to entering the PCMS area.

(b) Hot firing areas will be posted daily in both airfield operations and company/troop operations. Pilots flying downrange will verify in the remarks section of the flight plan that the firing information has been read and understood.

(c) In the event of radio failure, the aircraft will exit the reservation, avoiding all hot and potentially hot FPs. The FCC will be notified of the communications failure at the termination of the flight.

(d) Aircraft intending to land at PCMS will establish communications with PCMS-RO and inform the FCC that radio contact has been established.

c. Close Air Support (CAS):

(1) The large down range area has the capability of supporting close air missions using notional bombs for supporting unit training down range.

(2) Units conducting CAS missions will submit their request in advance through RFMSS to the PCMS-RO.(3) The request will include the hours of the mission, number and type of aircraft, altitude at which the aircraft will be operating, and the aircraft call signs.

(3) Units will send a Ground Controller (E-7 or above) to the PCMS-RO at least 24 hours prior to the mission for an operating in restricted airspace briefing. Using units will ensure pilots of aircraft are familiar with operating procedures such as flight path, entry and exit locations, and altitude requirements.

(4) Ground Controllers will establish communications with the PCMS-RO on FM radio 30.30 MHz; alternate 39.60 MHz, at least one hour before the mission. The Ground Controllers will contact the PCMS-RO 15 minutes before the mission, to request permission for aircraft to enter restricted airspace. Ground Controllers will maintain communications with the aircraft and the PCMS-RO during the mission. Once an aircraft has departed PCMS airspace, the Ground Controller will notify the PCMS-RO. If aircraft are to return for further missions, the Ground Controller will notify the PCMS-RO each time the aircraft enters and exits PCMS airspace.

(5) CAS missions will be coordinated through the PCMS-RO.

2-9. Vehicle safety and road marches.

a. No vehicle will travel faster than posted speed limits. Downrange speed limits for tactical vehicles is 30mph on numbered routes and 20mph on unimproved trails. Non-tactical downrange speed limit is 40mph on MSRs and 30mph on dirt roads.

b. Tactical vehicles will not travel faster than 10mph while in blackout drive.

c. Posted speed limits will be followed by operators of all vehicles except when conditions may indicate a slower more prudent and reasonable speed due to weather and road conditions.

d. No tactical vehicles will be operated downrange without an assistant driver, Tank Commander, or Vehicle Commander unless the driver possesses a driver's license stamped "driver with single occupant license". The Tank Commander or Vehicle Commander must be a qualified licensed operator. The senior occupant (CPL or above) of the vehicle will ensure the vehicle is being operated properly and all personnel are wearing seatbelts.

e. Vehicular accidents, both civilian and military, in the downrange TA will be reported to the PCMS-RO.

f. Movement of tactical vehicles to and from maneuver areas is restricted to approved trails. Commanders may authorize movement off established roads and trails in scheduled TAs when necessary for tactical realism.

g. Privately owned vehicles (e.g., cars, trucks, and motorcycles) are not authorized to use PCMS downrange roads. Without the Brigade Commander's approval all Non-tactical government and leased/rental vehicles will sign for range passes when traveling down range. Passes will be displayed from the rearview mirror or on the driver's side windshield. This range pass will be returned to the PCMS-RO within the time period specified. Recreational permits are signed out through the I-Sportsman Website.

h. Convoys are considered six or more tactical vehicles traveling from Ft Carson to PCMS or from PCMS to Ft Carson and must be scheduled through CDOT and PCMS-RO.

(1) Units will submit a DD Form 1265 (Request for Convoy Clearance) with an overlay of proposed routes to schedule convoys.

(2) Units will wash all mud, rocks, weeds and seeds off vehicles prior to movement on the highway or loading vehicles on flat beds or rail cars to prevent damage to privately owned vehicles.

(3) Units will post road guards at major route intersections to control traffic.

(4) Convoy speed will not exceed posted tactical speed limit proscribed convoy commander. Catch-up speed will not be greater than five miles over the convoy speed.

(5) Neutral steering is prohibited on all MSRs

i. Foot marches will be scheduled by submitting a request for ruck march, with an overlay of route, to the PCMS-RO.

(1) The request will include date and time of road march and number of personnel involved.

(2) Communications with the PCMS-RO will be maintained at all times during the road march.

(3) A MEDIC with a CASEVAC vehicle is required to trail the march.

(4) Night or limited visibility marches require a reflective vest to be worn by all participants.

2-10. Personnel in TAs.

a. Status of personnel in TAs.

(1) All active duty military personnel upon arrival to PCMS Cantonment area are considered to be in a "training status;" that is, performing a military mission or functioning as a part of a unit in training.

(2) Active duty military personnel in civilian vehicles, bicycles, and/or motorcycles are not authorized on any of the TAs, range roads, track vehicle trails, fire breaks, or trails except as stated in this regulation.

b. DA civilian employees of U.S. Government agencies required to work in TAs will use a safe route and personally obtain a range pass from the PCMS-RO.

c. Units will submit a request to the PCMS-RO for approval to have Civilians/Family members on any range or TA. It is the responsibility of military sponsors to inform their Families and guests of the danger areas, precautions, and restrictions IAW this regulation prior to going downrange all family members and or gest must sign a hold harmless agreement. The agreements must be turned in to PCMS-RO.

d. Intoxicants and controlled substances.

(1) The unauthorized use, possession, or transportation of controlled substances is prohibited on or in the vicinity of all PCMS ranges and TAs.

(2) The use of intoxicants downrange is prohibited except as authorized by the CG or their designated representative.

(3) Soldiers who have properly prescribed medication by a doctor are permitted to possess and use that medication, as prescribed, on all PCMS ranges and TAs.

2-11. CS/Smoke in TAs.

a. References.

(1) Title V, Operating Permit, # 95OPEP110.

(2) ATP 3-11.50 (Battlefield Obscuration).

b. General.

(1) This regulation establishes the operating, monitoring, and reporting requirements for the use of Department of Defense (DoD) approved smoke and obscurants on PCMS. All conditions for the use of DoD approved smoke obscurants, as described in Colorado's State Implementation Plan are legally enforceable on both the federal and state levels. Ultimately, no visible smoke or obscurants may cross the installation property boundary. Obscurants and smoke usage on PCMS must meet regulatory requirements with minimal hindrance to training.

(2) The restrictions and reporting requirements apply to all military or other governmental personnel desiring to use, or are responsible for others using, DoD approved smoke or obscurants on PCMS. Applicable munitions include smoke pods, smoke grenades, including any munitions or mechanical device that, by design, generates smoke.

c. Buffer zones.

(1) No visible smoke may cross the installation boundary. This would constitute a serious violation of state regulations and the installations permit conditions. To preclude such an occurrence, buffer zones have been established inside of the FC boundary. The buffer zones are a precaution that provide space and time for any rogue smoke plumes to dissipate before crossing the Installation's boundary.

(2) Units will not employ hand held smoke grenades within the limits of the 300 meter buffer zone, except in emergency situations. Before employing a hand held smoke grenade the grenadier must account for wind direction and speed to minimize the chance that smoke will enter the 300 meter buffer zone and potentially cross the installation boundary. Additionally, the grenadier must maintain continuous direct observation of the smoke plume until it dissipates. While employing smoke grenades, the user must be in radio contact with the unit command post to report any smoke driftage into the buffer zone or off post.

(3) There is a one kilometer buffer in which units will not use mechanical smoke generators such as the M58 (Smoke Generator System) or smoke pot-type obscurants.

d. The M18 Red Smoke Hand Grenades (G950) can be used anywhere on the installation for emergency purposes. Normally, this would be to mark a MEDEVAC location in the event of an injury threatening life, limb, or eyesight. Submit a FC Form 11-E if this occurs within the 300 meter buffer zone.

e. Procedures for schedule, approval, and withdrawal.

(1) Military or other governmental personnel desiring to use smoke or obscurants on PCMS must obtain a range request through the PCMS-RO. The approval form must clearly state the DoD Identification Code (DODIC) of all the munitions to be used. No hand written DODICs will be issued.

Unit will also sign for and use a burn pan for hand held smoke. Request burn pan from PCMS-RO.

(2) To withdraw smoke and obscurants from the ASP, take the approved range request and DA Form 581 (Request for Issue and Turn-in of Ammunition) to the ASP. Similarly, provide a DA Form 2765 (Request for Issue or Turn-in) and a DA Form 1687 to the DPW, Hazardous Materials Control Center to withdraw fog oil and synthetic graphite. Only withdraw the smoke and obscurants stated on the approved documents.

f. Procedures for obscurant and smoke use.

(1) Units will notify the PCMS-RO by FM 30.30 MHz or BSTRS to obtain a "hot time" prior to the use and at the time exploding or dispersal of CS, obscurants, or pyrotechnics smoke munitions. For safety and operation control all units conducting training on a range must maintain positive radio contact and perform hourly radio checks with the PCMS-RO. If communications is lost, the training exercise is shut down. In conjunction with the hourly radio check, units conducting smoke or obscurants training must get meteorological update from the PCMS-RO.

(2) For any smoke and obscurants training, other than hand held smoke grenades, units will post smoke observers in positions along the one kilometer buffer demarcation that provide direct observation of the smoke plume. If smoke and obscurants operations occur at night, smoke observers must be equipped with appropriate night vision devices to observe smoke plumes in the dark. Smoke observers will remain alert for visible smoke that appears likely to enter the one kilometer buffer area or go off post.

(3) Smoke observers have the authority to shut down smoke generation operations when it appears that the smoke plume will not dissipate before entering the buffer. Therefore, smoke observers must remain in constant communication with the Smoke Control Officer or NCO.

(4) If smoke enters a buffer area, the smoke observer will immediately contact the Smoke Control Officer to halt smoke generation operations. The smoke observer must continue to observe the smoke plume to determine whether visible smoke crosses the installation boundary. The unit will notify the PCMS-RO of the incident and complete a FC Form 11-E for

submission to DPW, Environmental Air Program within 24 hours, to document that a smoke plume entered the buffer area but did not cross the property boundary.

(5) If visible smoke crosses the installation's boundary, ensure that smoke generation has ceased and conduct emergency notification procedures. The unit will complete and submit a FC Form 11-E to DPW, Environmental Air Program at 526-6601 or Fax: 526-6428 within 24 hours after the incident.

(6) Smoke and obscurant creation devices will not be set up nor used on any known or marked cultural site on the installation as these areas are "off limits" to training.

(7) The Smoke Control Officer must account for meteorological conditions during the planning and employment of smoke and obscurants. Carefully observe wind direction during training, especially when thick smoke plumes are generated.

(8) Units will not generate smoke/obscurants when wind speeds exceed 20mph. This conforms to Army doctrine, which states that wind speeds greater than 12mph (10knots) is an unfavorable condition.

(9) When planning training, analyze prevailing meteorological conditions to determine if they meet established training criteria. Do not employ smoke/obscurant if the meteorological conditions do not meet the established criteria.

(10) Unit leaders will reconnoiter the training site and review the mission.

(11) Conduct a brief rehearsal on the day of the mission. Upon initiation of smoke or obscurant generation, observe the initial smoke or obscurant plume to verify that it conforms to the established training criteria. If the wind direction is not favorable for the mission based on the smokers' position relative to the buffer zone, move the mission to a preplanned secondary smoke line.

(12) The supervising officer will ensure all CS munitions and powder, obscurant smoke, and pyrotechnic smoke munitions (any smoke) are properly accounted for at all times to prevent loss or unauthorized use.

(13) A maximum of 1,540 gallons per day of fog oil, equivalent to 28 drums, may be vaporized to generate obscurant smoke separately on FC and PCMS. The installation may not exceed this limit. This limit also applies for the combined daily usage of fog oil and synthetic graphite; the unit must make a calculation for the graphite/fog oil usage ratio. If necessary, contact the DPW, Environmental Air Program for assistance.

g. Smoke munitions safety.

(1) All personnel using smoke munitions and their supervisors must be familiar with specific safety precautions for each type of munitions.

(2) Burning type CS and smoke grenades will not be fired or thrown closer than 10 meters to personnel.

(3) Neither CS grenades nor smoke munitions may be fired or thrown from moving vehicles.

(4) Burning type grenades will not be used in an enclosed space (e.g., tents, vehicles, tunnels, buildings, etc.). The burning process of those grenades consume oxygen and increase the carbon monoxide in the air. Protective masks do not provide protection against carbon monoxide.

(5) Extreme care will be used to avoid setting grass fires with burning type munitions. In grassy areas these munitions will be fired in a metal burn pan.

(6) Any concentration of HC smoke (smoke pots) is potentially hazardous when inhaled. If it becomes necessary for personnel to be in any concentration of smoke, a protective mask must be worn. Personnel will carry their protective mask when participating in exercises involving the use of smoke.

(7) Showering and laundering of clothing will eliminate the risk of skin irritation caused by exposure to smoke. Troops exposed to smoke should reduce exposure by rolling down sleeves.

(8) Special care must be taken when using HC smoke to ensure protection of personnel. When planning for the use of HC smoke in training, specific consideration must be given to weather conditions and the potential downwind effects of the smoke. Positive controls such as observation, control points, and communications must be established to prevent exposure to unprotected personnel.

h. Additional restrictions and requirements for CS usage.

(1) CS will not be used in or around cantonment area or Highway 350 or within 1000 meters of non-participating personnel and the reservation boundary.

(2) CS will be used under the supervision of a Range OIC and RSO who are trained in CBRN. Only personnel involved in the training exercise should be affected by the CS.

(3) A CBRN Officer or NCO will be present when using the M-5 (Test Set, Flame Thrower-Riot Control Agent Dispenser, Hydrostatic-and-Volumetric: 6,000 PSI).

(4) A MEDIC with aid bag, litter, and CASEVAC vehicle will be present during CS Training.

(5) The M25 series "baseball" type grenade will not be used with CS agents. The M25 series grenade will be used only when training individuals on the riot control use of this type grenade. Training will be conducted IAW TC 3-23.30 (Grenades and Pyrotechnics Signals).

(6) When aircraft are engaged in dispersing CS, one of the pilots will wear a protective mask throughout the flight.

i. Routine reports.

(1) Within seven calendar days after an exercise, the smoke generating unit will provide a daily total of fog oil and synthetic graphite usage to the DPW, Environmental Air Program Manager.

(2) The DPW, Environmental Air Program Manager will notify the ASP, PCMS-RO, and the 4ID, Chemical Office before the installation reaches the permitted limit to allow enough time to submit a permit modification to the state.

2-12. Swimming.

Swimming is prohibited in all bodies of water downrange on PCMS.

2-13. Privately Owned Weapons (POW) and ammunition.

- a. POWs and ammunition are prohibited downrange, except when an individual is authorized to hunt in a TA during the designated hunting season.
- b. Possession and use of a POW or ammunition is prohibited downrange during any type of military training.

Chapter 3

3-1 LASERs

- a. All Military eye safe Laser Range Finders vehicle or hand held are authorized for use at Pinon Canyon Maneuver site.
- b. The use of laser range finders equipped with eye safe filters over the emission port are authorized on all training facilities at PCMS. All personnel will comply with safety precautions in LASER safety publications.
- c. Avoid viewing of a laser beam directly or through a flat mirror-like surface. This will expose the unprotected eye to potential hazards.
- d. Do not LASE any targets within 100 meters of any reflective surface (e.g., water, ice, etc.).
- e. All MILES lasers are authorized for use at PCMS, operators will positively identify the target and buffer areas prior to engaging.
- f. **WARNING** at no time will any vehicle Laser rangefinder or MILES Laser be pointed at or engaged on or in the vicinity of any Civilian Air Craft.
- g. Report any suspected eye exposure to laser radiation to the PCMS-RO and evacuate person to the Evans Army Community Hospital for eye examination.

Chapter 4

Ammunition Safety and Physical Security

4-1. General.

- a. The OIC or commander will ensure that responsibility is fixed for the proper receipt, storage, issue, positive accountability, reconciliation, turn-in, physical security, utilization, and safety of all ammunition materiel IAW the provisions of AR 190-11. Ammunition handlers and key range personnel will be familiar with the provisions contained in DA Pam 385-64

(Ammunition and Explosives Safety Standards). Commanders will be responsible for qualifying the ammunition handlers.

b. Only the driver and assistant driver will be in the cab (driving compartment) of vehicles transporting explosives. No other personnel are permitted on or in the vehicle; or on or in a trailer connected to a prime mover hauling explosives.

c. All personnel will be informed of procedures for the handling of UXO and misfires.

d. Ammunition will be accounted for and signed on a hand receipt DA Form 581 or DA Form 5515 (Training Ammunition Control Document) by a responsible person (on site) and under physical guard when in centralized storage positions downrange.

e. Vehicles with ammunition will not be parked closer than 50 meters to each other.

f. Malfunctioning munitions will be reported IAW this regulation. Malfunction reports are required if munitions exhibit an unusual rate or quantity of UXO, misfires, or poor performance not attributed to malpractice, mishandling, improper procedures, or faulty weapons. Corrective action may be applied to the remainder of the munitions lot, by the Directorate of Logistics (DOL), Quality Assurance Specialist. UXO will be reported to the PCMS-RO by lot number and quantity. Misfires will be returned to the Ammunition Reclamation Area for examination.

g. Any munitions that are brought to a training facility must be approved on the request summary submitted through RFMSS. Munitions not listed by the DODIC on the request summary will not be authorized on the range.

4-2. Use of blank ammunition.

a. Units using blank ammunition or pyrotechnics in TAs will:

(1) Appoint an OIC (E-6 or above) and RSO (E-5 or above).

(2) Request for occupation, firing, and closing of TA IAW this regulation through the PCMS-RO.

(3) Appoint an ammunition handler. Ammunition handlers will not be assigned other duties.

b. Prior to the first exercise involving the use of blank ammunition, all personnel will be briefed to include a demonstration of the effects of blank ammunition fired at close range.

c. Prior to each subsequent exercise, individuals will be reminded of the safety precautions and instructed in detail about any special precautions pertinent to the exercise.

d. Blank ammunition will be requested, issued, safeguarded, and accounted for in the same manner as all other types of ammunition.

e. Safety precautions.

(1) Blank ammunition will not be fired within 20 feet of personnel.

(2) When opposing forces must close to within 20 feet, all weapons will be fired in the air and away from personnel. OCs will declare a "close kill".

(3) Personnel guarding Prisoners Of War on exercises will not have blanks in their weapons.

(4) During the hours of darkness, blank ammunition will not be fired at a distance of less than 30 yards or in the direction of another person to include vehicle operators.

(5) Any person observing a safety hazard will call an immediate halt and initiate corrective action.

(6) During blank demonstration, weapons must be pointed away from spectators.

(7) Do not tamper with blank ammunition.

(8) Prior to being loaded into magazines, blank ammunition for individual weapons will be 100 percent inspected by the RSO to ensure live rounds are not present and there are no modified blank rounds. No sticks, stones, sand, additional powder, or foreign material of any type will be inserted into the bore of the weapon. Powder used in blank ammunition is fast burning and requires an unobstructed bore to dissipate the rapid-expanding gases. Foreign material in the bore will cause rupture or bursting of the barrel and will produce casualties.

(9) At all times an individual's weapon will be unloaded, to include removal of magazines from weapons, except when a Soldier is on security guard or in a field exercise in which immediate firing is anticipated.

(10) Blank ammunition will not be fired inside vehicles.

(11) RSOs will ensure all live ammunition is turned in by individuals and cleared from the area prior to issuing blank ammunition for simulated firing exercises or demonstrations.

(12) Misfires will be reported IAW AR 75-1.

(13) On completion of training, Soldiers and vehicles will be inspected for blank ammunition.

(14) Ball, tracer, and blank small arms ammunition will not be fired at the same time, during a tactical exercise.

4-3. Accidents or fires involving ammunition or explosives, not part of training on a range.

a. The first person observing an accident or ammunition fire during movement, from the ASP to a training facility, will immediately notify the PCMS-RO. The PCMS-RO will notify:

(1) The MEDEVAC hot loop – PCMS-FES, FCOC, and Butts.

(2) The Ammunition Quality Assurance Specialist at 526-3781/4381. (3) The Installation Safety Office at 526-2123.

(3) The LAO at 526-2798.

(4) The Provost Marshal's Office at 526-2333.

b. Follow fire instructions IAW FC Reg 420-5 (Fire Prevention and Protection).

4-4. Reporting weapon or ammunition malfunctions.

a. In case of a malfunction of a weapon or ammunition, follow the immediate action procedures IAW the applicable FM, TM, or TB. If there is no damage to equipment and ammunition, or injuries to personnel, the unit will collect all information concerning model number, caliber of weapon or ammunition, and lot number, if applicable. Provide this information immediately to the PCMS-RO.

b. Malfunctions resulting in explosions, damage to equipment, or injury to personnel will be immediately reported to the PCMS-RO.

c. Protect damaged equipment or questionable ammunition in a malfunction. When a malfunction occurs that causes damaged equipment or may involve questionable ammunition, personnel in the immediate vicinity of the malfunctioning equipment or questionable ammunition will move to the rear of the weapons system. Immediately notify the PCMS-RO. The OIC or commander will ensure that nothing is touched, moved, or disturbed, to include records and data being maintained. If fire is part of the occurrence, the PCMS-FES will be notified if such action would prevent the destruction of damaged equipment or ammunition.

d. The DOL, Ammunition Quality Assurance Specialist is the only person authorized to release and return equipment back to the OIC or commander of the organization which is responsible for the material.

e. Follow the procedures IAW the appropriate FM and TM when handling misfires, hang-fires, cook-offs, stickers, and UXO.

4-5. Pyrotechnics.

a. Units using pyrotechnics in TAs will:

(1) Appoint an OIC (E-6 or above) and a RSO (E-5 or above).

(2) When requesting for occupation, firing, and closing of TA through the PCMS-RO, use the format outlined in this regulation.

(3) Appoint a qualified ammunition handler. The individual will not be assigned other duties.

b. Pyrotechnics may be used in the TAs with a burn pan.

c. Pyrotechnics safety regulations.

(1) Pyrotechnics will not be used to control weapons firing on any numbered firing range except as authorized by this regulation.

(2) Read Chapter 2, Section IV and Chapter 6, Section III of TC 3-23.30.

(3) Pyrotechnics will not be fired at or directly over the heads of personnel.

(4) Because of fire hazards, firefighting equipment (e.g., backpacks, fire beaters, etc.) issued by PCMS-RO will be on hand when using pyrotechnics.

(5) Anticipate fires, when using smoke pots, smoke grenades, or any other pyrotechnics that are placed upon the ground. If a fire starts, all maneuvers will cease until the fire is extinguished; notify the PCMS-RO immediately.

(6) During high or extreme fire danger conditions, the use of pyrotechnics and tracer ammunition may be restricted. Units will call the PCMS-RO for updated fire danger information.

4-6. Unexploded Ordnance (UXO).

a. Units may encounter an UXO or discarded munitions anywhere within the training complex. Safety Briefs and mitigation must be put in place anytime Soldiers are training.

b. An UXO is an explosive ordnance, including pyrotechnics such as flares, simulators, smoke, and signals that fail to function after being fired. A UXO is not a misfire, hang-fire, or stuck round.

c. Commanders will inform all personnel that UXO are not to be disturbed under any circumstances. Unit personnel will be briefed on the 3 Rs for encountering and UXO:

(1) Recognize.

(2) Retreat (min of 300 meters).

(3) Report (to the PCMS-RO).

d. Upon completion of firing, a written UXO Report will be turned into the PCMS-RO.

e. All UXO, regardless of number, will be reported by lot number and quantity to the PCMS-RO at 503-6130/6124

4-7. Amnesty ammunition turn-in.

Under the Amnesty Program, any individual or unit will turn-in their ammunition to the Ammunition Reclamation Area. The Amnesty Program is not designed to be part of the ammunition turn-in process. Ammunition found downrange or after post firing shakedown inspections can be turned-in under the Amnesty Program.

Chapter 5

5-0. Demolitions

a. This chapter describes the general procedures for detonating explosives such as demolition blocks, mines, shaped charges, the Bangalore Torpedo, and mine clearing demolition snakes.

b. General safe practices for handling and transporting explosives are IAW DA Pam 385-64, TM 9-1375-213-12 (Operator's and Unit Maintenance Manual (including repair parts and special tools list): Demolition Material), and FM 3-34.214 (Explosives and Demolitions).

c. Personnel involved with demolition training will wear a Kevlar helmet, hearing protection, and body armor.

d. Electric firing systems will be used with caution or will be replaced by non-electric firing systems in certain situations because of the possibilities of unintentional detonation caused by extraneous electric energy (e.g., radar transmission, power lines, and FM radio transmissions). When electrical type demolition material is used, units will place a guard on adjacent roads or access routes 1000 meters from the demolition site. Guards will warn personnel to turn radios off until clear of the demolition site.

e. Demolition to include M18A1 Claymore Training will be suspended upon the approach of or during a thunder storm. The PCMS-RO will inform units of approaching severe weather.

f. When a non-electric or dual primed system misfires, the material and firing components will be treated as a UXO. Non-electrical firing systems will not be disarmed. The PCMS-RO will be immediately notified of misfires and UXOs. The PCMS-RO will notify the EOD for disposal.

g. The maximum amount of demolition material that will be detonated per shot will not exceed 25lbs. Steel cutting charges will not exceed 2lbs and will be placed in a one meter hole when detonated. Designated areas in the TA are restricted to 25lbs per shot (Figure 1). Demolition material must be listed on the approved range request. Units firing non-electrical systems will inform the PCMS-RO 15 minutes and 5 minutes prior to detonation. For electrical

firing, notify the PCMS-RO after detonation is complete.

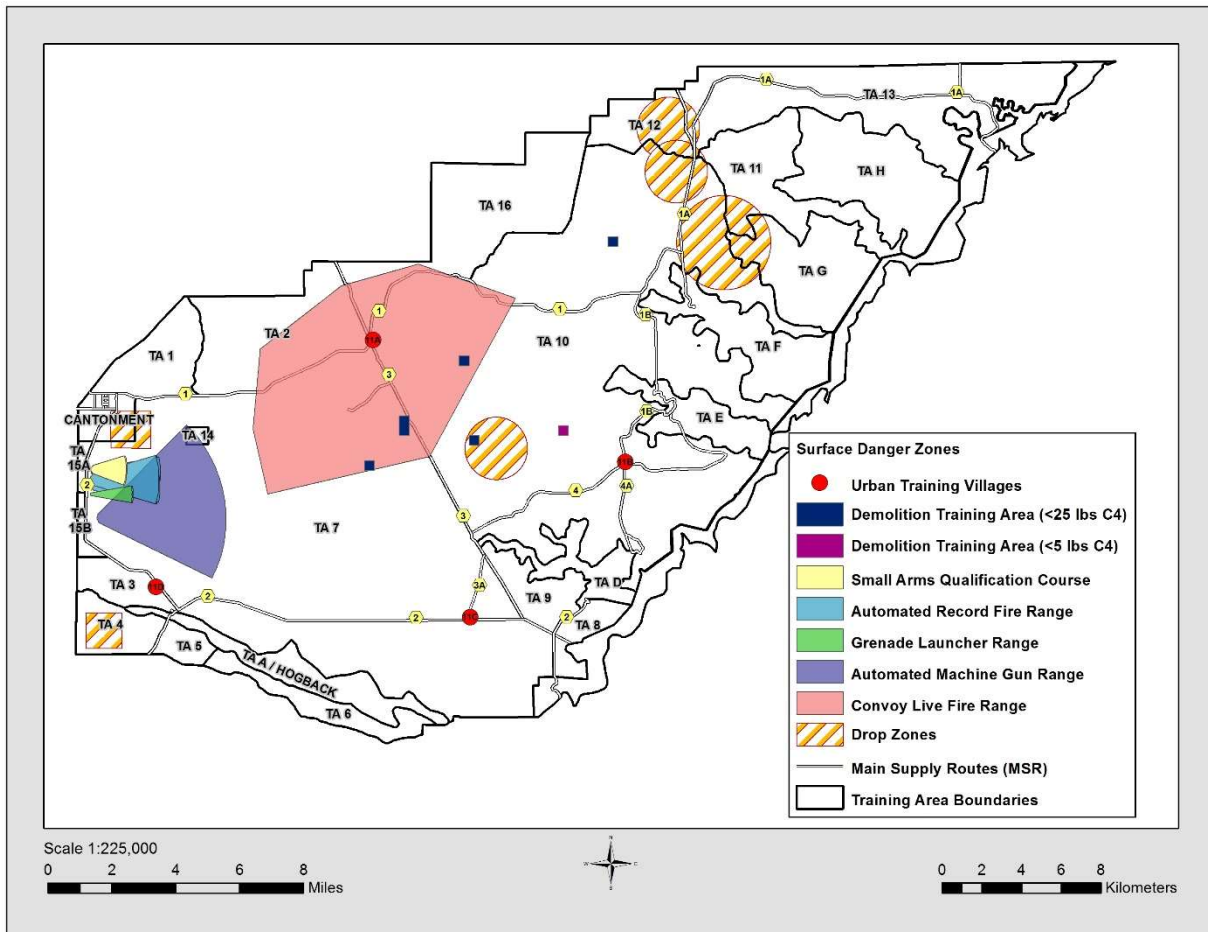


Figure 1. PCMS Overview with location of demolition breach sites.

Center Points (WGS84):

- Site 1 - 593250E 4148250N
- Site 2 - 592750E 4152250N
- Site 3 - 589750E 4149000N
- Site 4 - 588000E 4147000N
- Site 6 - 600250E 4158250N
- Site 7 - 597750E 4148750N

Chapter 6

6-0. Rail Head Operations.

Rail Head Operations

Pinon Canyon Maneuver Site is equipped with a six spur 168 car capacity rail head with halo lighting. The unit must have on site a Rail Head OIC, RSO, or NCOIC, Medic's with a designated emergency transport vehicle and a rail head detail, using unit will maintain radio communications with PCMS-RO at all times FM 30.30 MHz/BSTRS or phone 503-6130/6124.

No one will be permitted access to the train cars until BNSF railroad personnel and Ft Carson safety are present and give the ok to down load the train.

a. It is the units responsibility to give the rail head detail and vehicle drivers a safety briefing before anyone mounts the train cars. (SAFETY FIRST)

b. After the safety briefing the railhead detail will proceed to unchain and unblock there assigned vehicles. All chains and chalk blocks belonging to the vehicle will be secured on or inside the vehicle prior to moving the vehicle by the vehicle crew.

c. There will be no walking backwards or running on the train cars. The ground guide will be at the end of the next train car facing the vehicle to be moved using both hands the ground guide will move the vehicle forward to the end of the train car, stop the vehicle and then he or she will move to the next car and repeat the steps above until the vehicle is off loaded from the train and put in line in the staging area.

d. Climbing on and off the train car there is a step at each end of the train car do not jump off the train car.

e. There is no standing on top of the vehicle while on the train car. No personnel will be allowed to ride on or in the vehicle while it is being ground guided off the train.

f. There will be no one on the train car or on the ground left or right of the train car that the vehicle is moving on.

g. Spanners are provided at the staging area next to the rail head stacked neatly on the wash rack side of the staging area. The rail detail will install the spanners as needed after all vehicles have been down loaded the rail detail will remove the spanners and restack them facing downward so they cannot hold water the spanners will be placed in the same location that they were received from.

6-1. Fuel Operations.

PCMS has an 80,000 Gallon F24 fuel storage capacity and 20,000 gallons of midgrade unleaded fuel for TMP's on the Veeder root system the using unit will receive a programed Vil key from FT Carson DOL prior to coming down to PCMS the key must be programed for Pinon Canyon or it will not work. This is your only access to fuel at PCMS. All fuel purchase and usage is the Units responsibility coordinated through Ft Carson DOL.

6-2. Wash Rack Operations.

PCMS Wash Rack is equipped with two hard stand wash points with high pressor hoses, overhead lighting and a trash point the facility must be requested seven days in advance this request is through PCMS RO and must be put in RFMSS the unit will have an OIC and an NCOIC on site while the wash rack in in operation.

a. All drain plugs must be in place prior to washing vehicle.

b. No fuels, solvents or detergents will be used or drained on this wash rack. The using unit is responsible for cleanup and disposal of all hazards waste.

c. The using Unit will inshore there is no Trash, Ammo or Ammo Residue in the sediment pond or the recycled water pond.

d. There is No Swimming allowed at the PCMS Wash Rack for any reason.

e. The using Unit will clear the wash rack with PCMS RO inspector prior to leaving PCMS.

6-3. Pipe Line.

Currently, the CIG pipeline travels in a Northeasterly direction almost through the center of the Pinon Canyon Maneuver Site and is 27 miles in length. The Natural Gas comes into PCMS from the North into Valve Block One, grid square 6504, at the northern boundary of DZ Apollo, in a 10"inch carbon steel line at between 800 to 900 PSI. As it intersects Valve Block Two, located at grid square 4791, to the right of MSR 3, the gas then splits into two 8"inch carbon steel pipelines that can be as high as 1050 PSI. The final valve block 3 is on the southern border in grid square 3775. All valve blocks are protected with a 6 ft. high chain link fencing and are surrounded with steel bullocks encased in 3 ft. sq cement blocks.

All three Valve Blocks located on PCMS must be MANUALLY secured in the event of a pipeline leak or rupture.

The pipeline was originally installed in the late 1950's before DOT (Department of Transportation) regulations came into effect. Currently the pipeline traversing PCMS is not encased in cement, the buried depth for the 10 inch line entering PCMS from the North is 4' to 6' ft in depth. At Valve Block Two, grid square 4791, the pipeline splits into two 8 inch pipeline sections the soil depth starting from Valve Block Two ranges from 2' to 4 ½ 'ft. max depth.

There are a total of 11 Cathodic Protection Surface Stations on PCMS. These stations run off the natural gas from within the pipeline to produce the electricity needed to ensure the cathodic protection probes are properly electrified, stopping corrosion from forming and damaging the steel pipeline.

AT NO TIME WILL YOU DRIVE ON THE PIPELINE. There will be no Stopping, Pivoting or turning on the pipeline. Crossing the pipeline at a 90 degree angle is permitted.

Currently the CIG pipeline is well marked with warning signage placed at 100 ft. intervals on both sides of the pipeline approx. 20ft from center of the pipeline, thus making a 40ft protection zone (between the signage) as the pipeline travels through the Maneuver Site. The signs are yellow/ black letter warning signage. All the Cathodic Protection stations are chain link fenced and surrounded with the same style of steel cemented in place bullocks.

Appendix A References

Section I Required Publications

AR 15-6
Procedures for Investigating Officers and Board of Officers

AR 75-1
Malfunction Involving Ammunition and Explosives

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

AR 385-10
The Army Safety Program

AR 385-63
Range Safety

ATP 3-09.50
Tactics, Techniques, and Procedures for Field Artillery Cannon Battery

ATP 3-11.50
Battle Obscuration

DA PAM 385-63
Range Safety

DA PAM 385-64
Ammunition and Explosives Safety Standards

FC REG 95-1
Local Flying Rules and Procedures

FC REG 200-1
Environmental Management and Protection

FC REG 350-1
Fort Carson Training

FC REG 420-5
Fire Prevention and Protection

FC REG 525-2
Protection program

FM 3-34.214
Explosives and Demolitions

FM 6-40
Tactics, Techniques, and Procedures for Field Artillery Manual Cannon Gunnery

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

TC 3-23.30
Grenades and Pyrotechnics Signals

TC 25-8 Training Ranges

TM 9-1375-213-12
Operators and Unit Maintenance Manual (including repair parts and special tools list):
Demolition Material

Section II

Related Publications

AR 40-5
Preventive Medicine

AR 95-2
Airspace, Airfields/Heliports, Flight Activities, Air Traffic Control, and Navigational Aids

FM 3-22.34
TOW Weapon System

FM 3-90.1
Tank and Mechanized Infantry Company Team

TM 3-34.85
Engineer Field Data

TC 3-22.23
M18A1 Claymore Munition

TC 3-25.26
Map Reading and Land Navigation

TC 4-02.3
Field Hygiene and Sanitation

Section III

Prescribed Forms

DA Form 581
Request for Issue and Turn-in of Ammunition

DA Form 581
Request for Issue and Turn-in of Ammunition

DA Form 2028
Recommended Changes to Publications and Blank Forms

DA Form 2765
Request for Issue or Turn-in

DA Form 5515
Training Ammunition Control Document

DD Form 1265
Request for Convoy Clearance

FC Form 5-1-E

FC Form 5-2-E
Appendix C

FC Form 1036
Range Safety Card

Appendix B Safety Briefing

At a minimum, the following will be covered in the unit Safety Briefing as well as all potential risk identified by the units risk assessment prior to training:

1. Range firing left and right limit markers must be identified and shown to personnel. Personnel will never fire or point their weapons outside of the limit markers.
2. Range communication requirements.
3. Weapon misfire procedures will be practiced prior to live fire.
4. Rounds out of impact procedures.
5. Location weapons will be cleared and inspected by a Safety NCO.
6. Pre-fire checks conducted prior to training.
7. Weapon status when not on the firing line, such as selector on safe, bolts to rear, and dust covers open.
8. Entry and exit points on the range. No weapons will be allowed to be removed from the range without the OICs permission.
9. Unexploded Ordnance (UXO); reporting and marking requirements.
10. Designated smoking areas.
11. MEDEVAC procedures.
12. Checking areas or firing positions for the presence of poisonous snakes and insects.
13. Never touching weapons while personnel are downrange or in front of the firing line.
14. Point out conditions that may change the risk, such as weather, visibility, etc.

Glossary

Section I Abbreviations

AAR
After Action Review

AR
Army Regulation

ASP
Ammunition Supply Point

BAAF
Butts Army Air Field

BSTRS
Base Support Trunk Radio System

CAS
Close Air Support

CASEVAC
Casualty Evacuation

CBRN
Chemical, Biological, Radiological and Nuclear

CG
Commanding General

DA
Department of the Army

DoD
Department of Defense

DoDAC
Department of Defense Ammunition Code

DoDIC
Department of Defense Identification Code

DOL
Directorate of Logistics

DPW
Directorate Public Works

DPTMS
Directorate Plans, Training, Mobilization, and Security

DZ
Drop Zone

EOC
Emergency Operations Center

EOD
Explosive Ordnance Disposal

FAA
Federal Aviation Agency

FC
Fort Carson

FCC
Flight Coordinating Center

PCMS-FES
Pinon Canyon Maneuver Site Fire and Emergency Services

PCMS-OC
Pinon Canyon Maneuver Site Operations Center

PCMS-RO
Pinon Canyon Maneuver Site Range Operations

FM
Field Manual
Frequency Modulation

FOIA
Freedom of Information Act

IAW
In Accordance With

ITAM
Integrated Training Area Management

LAO
Logistics Assistance Office

LASER
Light Amplification by Stimulated Emission of Radiation

LFX
Live Fire Exercise

LRSO
LASER Range Safety Officer

MEDEVAC
Medical Evacuation

MHz
Megahertz

MILES
Multi Integrated LASER Engagement System

MSD
Minimum Safe Distance

NCO
Noncommissioned Officer

NEFP
Non Established Firing Point

OC
Observer Controller

OIC
Officer In Charge

OPORD
Operations Order

PA
Public Address

PCMS
Pinon Canyon Maneuver Site

POL
Petroleum, Oil, and Lubricants

POW
Privately Owned Weapons

RCO
Range Control Officer

RFMSS
Range Facility Management Support System

RSO
Range Safety Officer

SDZ
Surface Danger Zone

SO
Safety Officer

SOP
Standard Operating Procedures

TA
Training Area

TB
Technical Bulletin

TC
Training Circular

TEWT
Tactical Exercise Without Troops

TM
Technical Manual

UHF
Ultra-High Frequency

USAF
US Air Force

UXO
Unexploded Ordnance

VHF
Very High Frequency

VT
Variable Time

Section II Special Abbreviations and Terms

This section contains no entries.

Training
MANEUVER DAMAGE CONTROL PROGRAM

History. This is a minor revision.

Summary. This regulation prescribes procedures and policy for the use of Fort Carson Military Reservation (FCMR) and Pinon Canyon Maneuver Site (PCMS) Training Areas (TA).

Applicability. This regulation applies to all commands, units (assigned, tenant, and visiting), and individual Soldiers conducting downrange or similar maneuver training either at FCMR, PCMS, or U.S. Army Reserve and National Guard Centers under support responsibility of FCMR. It also applies to recreationists and civilian employees using or working downrange.

Proponent and exception authority. The proponent for this regulation is the Directorate of Plans, Training, Mobilization, and Security (DPTMS), Range Operations. The proponent has the authority to approve exceptions or waivers to this publication that are consistent with controlling laws or regulations.

Army management control process. This publication does not contain management control provisions.

Supplementation. Supplementation of this publication is prohibited without prior approval from the DPTMS, Range Operations, 2740 Wilderness Road, Building 9550, Fort Carson CO, 80913.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to DPTMS, Range Operations, 2740 Wilderness Rd, Building 9550, Fort Carson, CO 80913.

(IMCR-PLT)

FOR THE COMMANDER:

OFFICIAL: EDMOND M. BROWN
COL, GS
Chief of Staff

MARY L FOSTER
Director Human Resources

Distribution: This publication is only available in electronic media.

*This publication supersedes FC Reg 350-10, dated 1 January 2011.

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Chapter 1 Introduction

1-1. Purpose.

a. Regulation enables Commanders training opportunities and provides sound decisions based off METL and training requirements.

b. Commanders must evaluate the value of the intended training against the cost and possible environmental effects of maneuver damage. This regulation assists commanders in this evaluation by providing information on the control of maneuver damage. This regulation will assist commanders at FCMR, PCMS, and other installations used for training.

c. In addition to complying with local, state, and federal laws and regulations, the goal of this Maneuver Damage Control Program (MDCP) is to maximize the training opportunity while minimizing damage to the training lands.

d. The MDCP is designed to support aggressive and realistic training, while taking into account sustainability, costs and damage to the training environment.

e. The MDCP will not require additional personnel or equipment. The program is designed to make maneuver damage reduction and training lands enhancement, a chain of command responsibility. All preventive and corrective measures will be monitored and enforced by the unit chain of command.

f. The MDCP is comprised of these essential components:

- (1) Education.
- (2) Prevention.
- (3) Reporting.
- (4) Correction and repair.
- (5) Evaluation of effectiveness.

g. Mounted maneuver activities and the continued use of FCMR and PCMS facilities for its intended purpose will result in maneuver damage. Maneuver damage must be kept to a minimum and damage must be repaired to maintain realistic and sustainable training lands. Prevention of excessive maneuver damage and maintenance of training land quality are command responsibilities. This regulation provides unit commanders with information related to maneuver damage that may occur during training. It also identifies procedures to be followed to minimize such damage. Maneuver damage can result in:

- (1) Loss of overall training resources and realism.
- (2) Loss of specific training opportunities.
- (3) Safety hazards.
- (4) Decrease in tactical maneuverability or concealment.
- (5) Increased training area maintenance costs.
- (6) Irretrievable or unacceptable damage to the environment.
- (7) Decreased public support for the U.S. military.
- (8) Contamination of waters of the United States.

(9) Statutory or regulatory violations.

h. The key to sustaining the training resource is to prevent or minimize maneuver damage. Military assembly areas, excavation training, and the movement of vehicles are the major sources of maneuver damage. Guidelines for minimizing maneuver damage are presented below:

(1) All military and civilian personnel using FCMR and PCMS training lands are encouraged to read and understand the sustainable range awareness educational aids supplied by DPTMS, Range Operations. Classes are also given on this topic at least once per month, with certification lasting for a single calendar year. Point of contact is Range Operation's Integrated Training Area Management (ITAM), Coordinator at (719) 526-6374. Educational materials concerning this program have been developed to provide information on the various aspects of maneuver damage reduction.

(2) Maximize use of existing routes and trails. The creation of new routes and trails should be avoided.

(3) LIMITED-USE AREAS. Units may drive through limited-use areas on existing routes or trails, and may conduct dismounted training off the routes within them. Units are not to dig, bivouac, or maneuver vehicles off the routes or trails in limited-use areas. Limited-use areas are surrounded by Limited-Use signs. These areas are the most-impacted sites in the training areas, and are being rehabilitated for continued, sustainable training use or for other administrative reasons such as test, experimentation and evaluation. Most limited-use areas are in limited-use status for three years, but are pulled out of this status as soon as possible after the site has recovered and the vegetation can once again withstand military training. Up-to-date limited-use area information can be obtained from the Fort Carson ITAM Coordinator, at 526-6374.

(4) OFF-LIMITS AREAS. Training in off-limits areas is prohibited. These areas are designated on overlays and are marked with Off-Limits signs. Some of these areas contain serious safety hazards and others protected by federal law. See Appendixes B-1 and B-2.

(5) DISMOUNTED ONLY TRAINING AREAS. Training in dismounted only training areas must be limited to dismounted training activity only and all ground disturbing activities must be requested through DPTMS /Range Operations for coordination and permission in advance of the training exercise. Vehicle traffic must be restricted to existing routes and trails only. Major dismount only training areas are located at PCMS, with training areas designated with letters A through H. **Other** dismounted only training areas are identified by the placement of "Seibert Stakes" and "Seibert Signs" (see Figure 1) are commonly utilized at Military Installations to designate areas that should be avoided. Seibert Stakes can be recognized as placards or posts, striped with yellow, red, yellow, red and a white strip at the bottom. On FCMR and PCMS, Seibert Stakes/ Signs mean: "NO DIGGING and NO VEHICLE TRAFFIC. (Seibert Stakes at other military facilities could mean "Off-limits.") Figure 1 "Seibert Stakes and Placards" "NO DIG and NO VEHICLE TRAFFIC" Signs



Figure 1: *Seibert Stakes Marker*

(6) Keep vehicles 100 meters away from man-made structures.

(7) Minimize neutral steer turns. Such turns destroy vegetation, compact the soil, increase the probability of erosion, and leave evidence of operations.

(8) Conduct movement into assembly or bivouac areas in vehicle columns to reduce damage to road shoulders and culverts.

(9) A dig request / obstacle request must be submitted 3 weeks prior to and approved by Range Operations prior to digging or constructing obstacles in any of the training areas. Range Operations will coordinate with Directorate of Public Works (DPW), Environmental Division to ensure that resources are protected while facilitating military training to standard.

(10) Avoid spilling fuel, oil, or other hazardous products. Minimize the use of hazardous chemicals to protect the long-term health of our training lands. Conduct fuel operations 100 meters from any natural waterway, wetland, or other water conveyance structure.

(11) Do not throw trash on the ground, bury trash in the ground, or burn it in the maneuver areas. Collect all trash and transport it to the Cantonment Area for proper disposal. Dispose of solid wastes (trash) in accordance with (IAW) existing waste disposal regulations. Each vehicle participating in maneuvers will carry a supply of clear plastic bags to collect, sort, and store trash.

(12) Report damage you cannot repair to Range Operations on a consolidated Maneuver Damage Report. Immediately report, fuel, oil, and hazardous chemical spills to Range Operations. The intent is to repair all damage as soon as tactically possible.

(13) No obstacles or traffic control points will be placed across numbered routes without prior coordination and approval from Range Operations.

(14) Erosion control structures, which are covered with boulders, are off limits to maneuver. Those erosion control structures with no boulders have been designed so vehicles may drive across or over them when dry.

(15) Trees will not be cut or intentionally mutilated. Grasses and weeds may be pulled for use as personal camouflage.

(16) Do not remove or otherwise relocate downrange signs for obstacle construction.

(17) Avoid damage to wetlands by finding an existing road or avoiding wet areas.

(18) Field artillery and mortar units can use burn pans issued by Range Operations or use Range 121B to burn excess propellant during or after live fire exercises. See FC Reg 350-11 (Firing Ammunition for Training, Target Practice, Administration, and Control of Ranges and Training Areas), 15 December 2015.

i. All excavations, such as tank ditches and vehicle or individual fighting positions, must be backfilled, leveled, and compacted before a unit is granted clearance from maneuver areas. Units will not put any foreign debris in any holes prior to backfilling.

j. All obstacles and materials used to construct them must be removed before a unit is granted clearance from maneuver areas.

k. All commanders will oversee maneuver damage control during their operations.

l. The recovery and redeployment phases of the maneuver exercise is just as important as the tactical phase, and should be accomplished just as vigorously.

m. Units will not be held financially responsible for fair, wear, and tear damage. For example, prairie damage is most often considered to be fair, wear, and tear. Fair, wear, and tear damage is repaired using ITAM funds.

n. IAW AR 735-5 (Policies and Procedures for Property Accountability), damage caused by irresponsible or unnecessary action will be considered negligent, and units or individuals may be held responsible for the cost of repair. Some examples of negligent damage items are damage to facilities or infrastructure (e.g., buildings, roads, windmills, etc.), damage in wetlands, trees that are maliciously killed or damaged, damage to archeological or historic sites, damage in an off limits or limited use areas, damage to fences, excavations not backfilled, graded, and compacted, trash or wire left downrange, and damage to or relocation of signs.

(1) During clearance operations Range Operations personnel will report negligent damage to the proper authorities/responsible activity.

(2) Negligent damage to training lands (e.g., unfilled positions and tree damage) will be reported directly to the ITAM/Land Rehabilitation and Maintenance (LRAM) Program through the Range Operations.

(3) Any damage or harm to cultural resources, wetlands, wildlife, endangered species, and spills (POL and hazardous materials) will be reported to the DPW, Environmental Division through the Range Operations. Appropriate DPW, Environmental Division, resource management personnel may periodically inspect sites downrange to identify reported and unreported damage.

(4) Any damage to real property (e.g., fences or structures) will be reported to DPW through the Range Operations.

(5) If the proper authorities (e.g., ITAM, DPW, DPTMS) determine the unit involved was indeed negligent in their actions, the unit's chain of command and the Garrison Commander (GC) will be notified. The Garrison Commander (GC) will determine if a Financial Liability Investigation of Property Loss (FLIPL) will need to be conducted.

o. All grid coordinates used in this regulation will be Universal Transverse Mercator (UTM) meters and based on a World Geodetic System (WGS)-84 military standard geodetic map datum.

1-2. References.

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

1-3. Explanation of abbreviations and terms.

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

Chapter 2

Training Area Clearance Plan

a. Training Area Clearance Plan must be turned in to the Range Inspector Supervisor a minimum of 5 working days prior to the beginning of the exercise. FC Form 1313-6 Revised 12 Aug 2013 is the form to be used. This form can be attained thru either the Range Inspector Supervisor or thru the ITAM Coordinators office. See Appendix D-1 for FC Form 1313-6 Revised.

Chapter 3

Education and Prevention

a. Commanders at all levels are responsible for the continual training and education of all Soldiers in their command on prevention of maneuver damage and environmental protection. This regulation will set the minimum educational and training requirements under the MDCP. Reducing maneuver damage will reduce combat signatures, which results in increased unit effectiveness in combat operations. Reducing maneuver damage also reduces the required resources necessary to repair damages and allows the use of funding to increase maneuverability and enhance the sustainability of the military training lands.

b. Unit commanders will designate a Maneuver Damage Control Officer (MDCO) to act as an advisor to the commander on maneuver damage and environmental issues while downrange. The MDCO will also act as a liaison between DPTMS, Range Operations and the unit.

(1) MDCO's will be an E-6 or above.

(2) Units are not allowed to occupy a training area without a certified MDCO.

(3) MDCO's must attend the MDCP Course at least annually to remain certified.

c. MDCP education and training will foster a "tactical signature reduction" mindset and focus on individual and unit responsibilities. In addition, the briefings and videos will focus on preventive measures units can take to preclude unnecessary maneuver damage. Specifically, the education and training will include:

(1) Proper driving techniques.

(2) Petroleum, Oil, and Lubricants (POL) pollution prevention.

(3) Basic rules for maneuver damage reduction.

(4) Refuse and trash handling.

(5) Integrating Dismounted training only and Limited Use Area and Off Limits Area markings into tactical equivalents (e.g., Limited Use Areas being referred to as mine fields with cleared lanes; Off Limits Areas as being contaminated with persistent chemical agent, etc.).

(6) Training land police.

(7) Training land asset protection.

(8) Field sanitation.

(9) Problems identified by all coordinating activities, such as fire prevention and suppression.

(10) How maneuver damage reduction procedures can also be tactically advantageous.

d. Unit commanders may send additional personnel to the MDCP Course as necessary.

Chapter 4 Reporting

a. Maneuver damage reports should be treated as Intel reports, using your unit format, per your unit Standard Operating Procedure (SOP), to communicate the information within your unit. An example might be a report using the "SALUTE" format:

(1) S = SIZE/"SEE." Description of the maneuver damage you have found.

(2) A = AREA/ACTIVITIES. How extensive the damage is; as in "approximately the size of a football field," or "about two kilometers long." Give a general direction if the damage is linear.

(3) L = LOCATION. Six digit coordinates to the center of mass of the damage.

(4) U = UNIT IDENTIFICATION. State the unit that caused the maneuver damage, if known.

(5) T = TIME and DATE of sighting. Military 24hr time.

(6) E = EQUIPMENT. State what equipment might be needed to repair the maneuver damage, to assist your commander in determining if they have in-house assets to conduct repairs.

b. The individual making the maneuver damage report should be communicating this information up through their normal reporting channels. Unit MDCOs should be recording reported damage; then, communicating the consolidated report to their commanders daily. Unit commanders should be assessing the report, determining:

(1) If the unit has internal assets to repair the damage; and

(2) When the appropriate time would be to do so. Damage that the unit cannot repair needs to be communicated to the Installation ITAM Coordinator as soon as possible.

(3) Unit will immediately report any vehicle entry into cultural sites to Range Operations.

c. IAW FC Reg 200-1 (Environmental Protection and Enhancement), spills of any quantity of hazardous materials, spills of more than five gallons of POL, and spills of any amount of POL that cover more than 100 square feet of land, or enter or threaten to enter any watercourse must be reported immediately to Range Operations by radio or telephone.

Chapter 5

Correction and Repair

a. The unit will use organic personnel, communication, engineer, and transportation assets for maneuver damage repair.

(1) Backfill and compact all individual fighting positions and survivability positions at change of mission and End of Exercise (ENDEX). Unit engineer assets will fill, blade, and compact all large excavations (e.g., defilade positions, tank ditches, survivability positions, etc.).

(2) Obstacles must be cleared immediately after each change of mission and after ENDEX. The unit will police all barbed wire, concertina wire, communication wire, trash, pallets, sandbags, and other training materials.

(3) Attached or in-house engineer assets used to create excavations during exercise are to backfill, blade and compact those excavations they produce.

(4) Cleanup POL spills of five gallons or less, or that cover less than 100 square feet. Dig down to clean dirt. Contaminated soils must be double-bagged and tagged as to what it is contaminated by (e.g., POL, antifreeze, etc.) and then taken to the FCMR contaminated soil deposit point located at Building 9246 (HWSF). For larger spills, see section 4.c below.

(5) Level trenches, ruts, and any foxholes or individual fighting positions. Units will also kick in and level longer track ruts caused by tracked vehicle maneuver, and mounds or ridges of dirt more than 12 inches high. This requirement is based on two criteria:

(a) The capabilities of equipment used to repair training lands.

(b) Preventing, rather than repairing, erosion damage proactively.

b. If a unit occupying an area discovers excessive or non-repairable maneuver damage, a maneuver damage report will be submitted to Range Operations as soon as practical. The units will also immediately notify Range Operations of any unsafe areas.

c. Spills of any quantity of hazardous materials, spills of more than five gallons of POL, spills of any amount of POL that cover more than 100 square feet of land or any spill that enters or threatens to enter a water course must be reported immediately to Range Operations by radio or telephone and fill out and submit FC Form 1200-E (Spill Report) see Appendix C-1 and C-2. Cleanup of the spill is the responsibility of the unit causing the spill. Spills will be cleaned up in an approved manner as described in FC Reg 200-1. The following SOP is recommended in such a case:

(1) Protect yourself and others.

(2) Assess the risk.

(3) Stop the source.

(4) Confine the spill.

(5) Report the spill.

(6) Cleanup.

(7) Decontaminate.

d. Ensure sufficient time is allocated for the clearance and inspection of the unit's training areas.

e. Units failing the initial inspection will need to reschedule a follow-on inspection. Commanders must be aware that time between unit rotations is often very short. If the unit fails the initial inspection, there may not be sufficient time to police the area that failed prior to that area being used by the follow-on

unit. Units will then be scheduled for re-inspection prior to the third unit coming into the area. If this happens, the unit will have to complete policing during the next break in training. In addition to the debris the unit failed to police initially, it will be required to police all additional debris that has accumulated during the additional training in that particular area. The failing unit will be released physically from the area, so as not to impede training for the follow-on unit, but will not be released from responsibility of the areas policed until they pass an inspection satisfactorily.

Chapter 6 Inclement Weather Training Issues

a. Commanders are responsible to minimize damage to soils, vegetation, wildlife, facilities, and roads downrange. Commanders of training units must consider the impacts of their maneuver on the environment prior to training, especially during inclement weather. Commanders of units training on FCMR or PCMS must consider the following suggestions prior to training during inclement weather:

Information provided by Range Operations

- (1) Soils are dry. No restrictions.
- (2) Soils are becoming wet. Commanders could limit training to trails and roads and/or dismounted operations.
- (3) Vehicles are making significant tracks in the soil (3" deep). Commanders could limit training to movement on primary Main Supply Routes (MSR) and/or dismounted operations only.

b. Before training during wet conditions, the unit commander will consider the following issues:

- (1) The necessity of such training.
- (2) The criticality of the mission being trained for.
- (3) The current training status of the unit.
- (4) The relevance of the training to upcoming operational missions.

c. If commander still considers it necessary to train in wet conditions, the commander should document their intent and justification. A risk management document should suffice and should be kept on file **by Range Operations**.

d. FCMR and PCMS, Range Operations can provide weather forecast updates for their facilities on request.

e. Compliance with the established inclement training area considerations will apply equally to recreationists and other FCMR and PCMS personnel.

Chapter 7 Cantonment Area Training Restrictions

a. The cantonment area on FCMR is an area designated for family living quarters, administrative office buildings, recreational facilities, and open space. Training is limited in this area.

b. For use of the PCMS cantonment area, refer to FC Reg 350-4 (PCMS).

c. Units training within the cantonment area must maintain a high state of police and must comply with all maneuver directives.

d. Inclement weather training issues apply to cantonment areas as well as to downrange.

e. Negligent and malicious damage will be dealt with by the chain of command IAW this regulation.

Chapter 8 Downrange Training Restrictions

a. FCMR.

(1) All FCMR training areas are scheduled through the installation's Range Facility Management Support System database, which is managed by the Range Operations, Scheduling Office at (719) 526-1311/9713.

(2) The map in Appendix B-1 shows only those areas that are permanently off limits and for limited use training. These areas will be marked with off-limits or limited use signs. **Other** dismantled only training areas are identified by the placement of "Siebert Stakes" and "Siebert Signs" around environmentally sensitive areas, not always identified on issued maps.

(3) The map in Appendix B-2 shows an area in Training Area 17 that is permanently off limits. This area is designated as a Depleted Uranium (DU) area. There is no admittance without special permission from Range Operations.

(4) Areas may be designated as limited use, when the land condition has degraded beyond the capacity of natural rehabilitation processes. In these areas units may drive on existing roads and trails and dismantled training may be conducted off-road. Units are not permitted to dig, bivouac, or drive vehicles off-road in these areas. Changes to the Limited use areas are recommended by Range and Training Lands Assessment (RTL), a component of ITAM, based upon the analyses of the monitoring efforts of the training lands. The suggestions will take into account erosion status and any pertinent special circumstances. LRAM "best management practices" will be applied as necessary to facilitate the rehabilitation process. Areas are typically designated as limited use for a period of three years; although, longer periods may be authorized as necessary. Representatives of Range Operations, ITAM, and DPW meet annually to discuss the limited use areas and necessary changes. Range Operations will be the final approving authority for changes to limited-use areas.

(5) Other restrictions may be identified as required.

(6) For current maps of FCMR, open my computer and type the following:
\\carsnecxa7x0001\shares\groups\IMCOM\DPTMS\Range Control\Range Operations. Right click on this folder and drag to your desktop and release. Click "create shortcut".

b. PCMS.

(1) All PCMS TAs are scheduled through the Range Facility Management Support System database; which, for PCMS facilities, is managed by the PCMS, Range Operations Scheduling Office at (719)-503-6115.

(2) The map in Appendix B-2 shows the PCMS TAs, both mounted maneuver areas and dismantled only areas.

(3) At PCMS, the lettered TAs (A-H) are currently designated for dismantled only training, vehicle traffic must stay on roads/trails and no excavation is authorized without prior coordination. **Other** dismantled only training areas are identified by the placement of "Siebert Stakes" and "Siebert Signs" around these environmentally sensitive areas, not always identified on issued maps.

(4) Off-limits and limited use areas will be marked with signs.

(5) Areas may be designated as limited use, when the land condition has degraded beyond the capacity of natural rehabilitation processes. In these areas units may drive on existing roads and trails and dismounted training may be conducted off-road. Units are not permitted to dig, bivouac, or drive vehicles off-road in these areas. Changes to the Limited use areas are recommended by Range and Training Lands Assessment (RTLTA), a component of ITAM, based upon the analyses of the monitoring efforts of the training lands. The suggestions will take into account erosion status and any pertinent special circumstances. LRAM "best management practices" will be applied as necessary to facilitate the rehabilitation process. Areas are typically designated as limited use for a period of three years; although, longer periods may be authorized as necessary. Representatives of Range Operations, ITAM, and DPW meet annually to discuss the limited use areas and necessary changes. Range Operations will be the final approving authority for changes to limited-use areas.

(6) Other restrictions as may be identified as necessary.

(7) For current maps of PCMS, open my computer and type the following;
\\carsnecxa7x0001\shares\groups\IMCOM\DPTMS\Range Control\Range Operations. Right click on this folder and drag to your desktop and release. Click "create shortcut".

Appendix A References

Section I Required Publications

AR 735-5
Policies and Procedures for Property Accountability

FC Reg 200-1
Environmental Protection and Enhancement

FC Reg 350-4
Pinon Canyon Maneuver Site (PCMS)

FC Reg 350-11
Firing Ammunition for Training, Target Practice, Administration, and Control of Ranges and Training Areas

Section II Related Publications

AR 200-1
Environmental Protection and Enhancement

AR 350-19
The Army Sustainable Range Program

AR 385-63
Range Safety

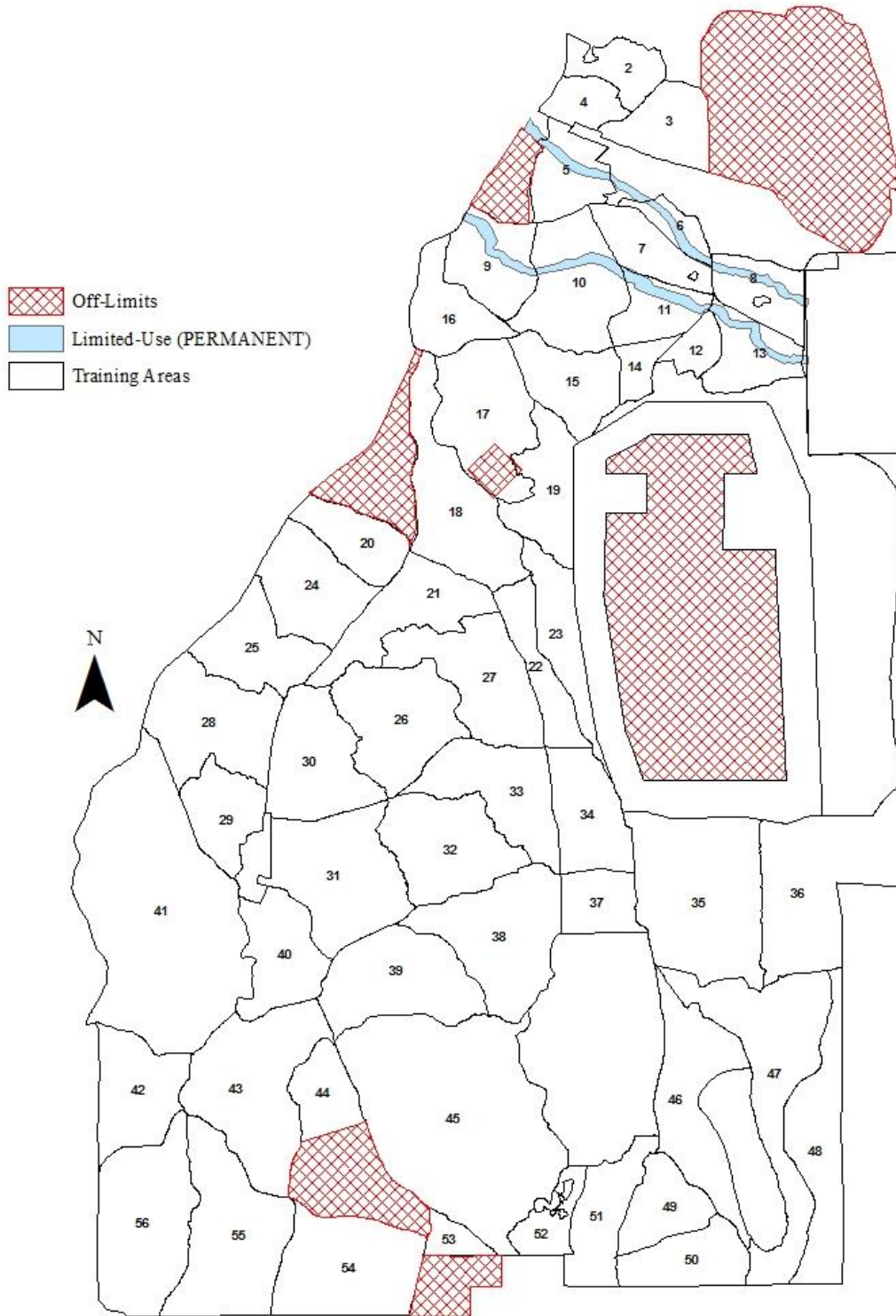
FC Reg 350-9
Integrated Training Area Management (ITAM)

Section III Prescribed Forms

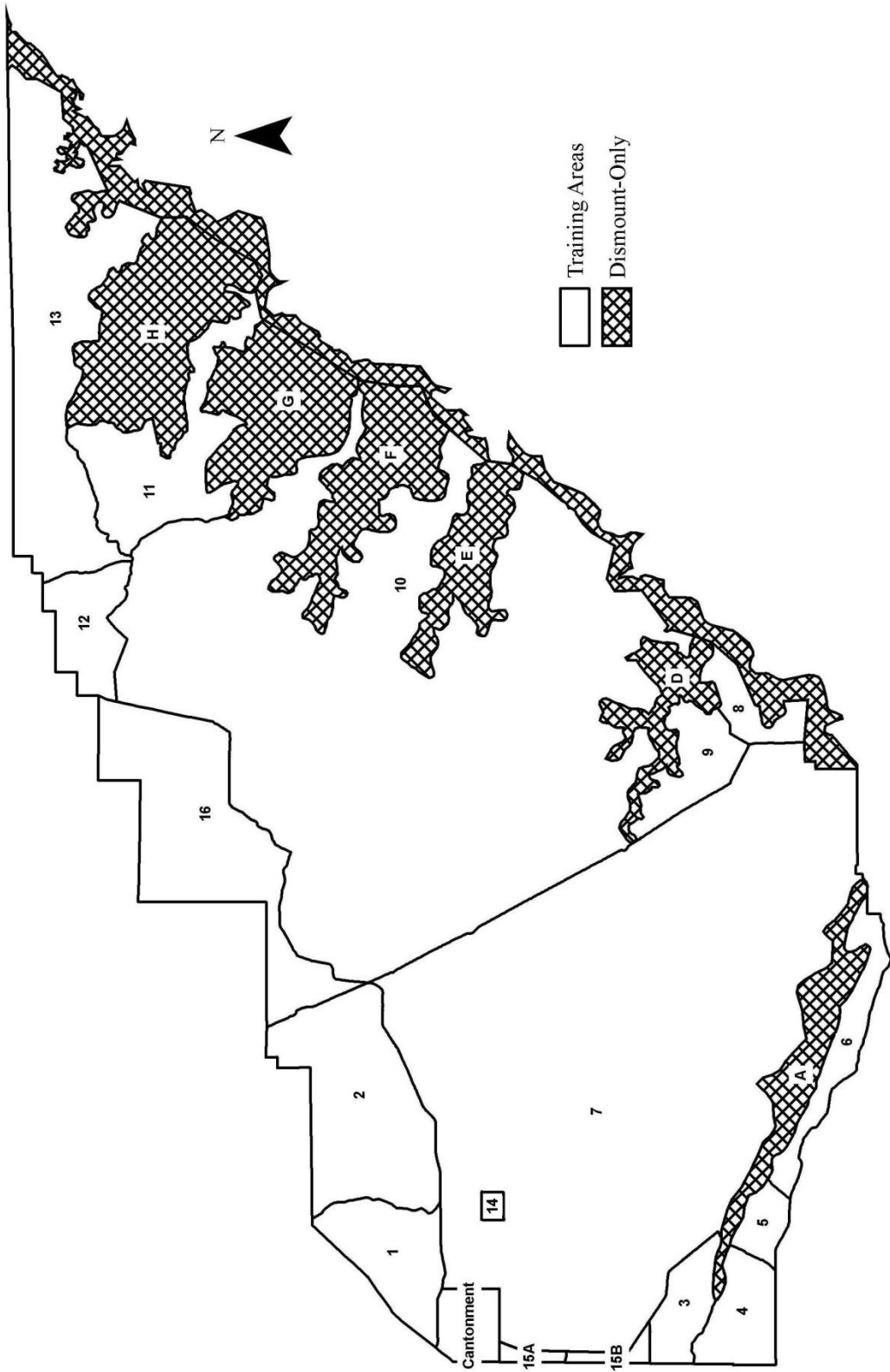
DA Form 2028
Recommended Changes to Publications and Blank Forms

FC Form 1200-E
Spill Report

Appendix B-1 Fort Carson Restriction Map (Training Areas & Restricted Areas)



**Appendix B-2
PCMS Restriction Map (PCMS Training Areas & Restricted Areas)**



Appendix C-1
POL Spill Procedures

POL SPILL PROCEDURES

5 GALLONS OR LESS

1. The unit must cease movement near the spill.
2. The unit must render First Aid as necessary: Initiate MEDEVAC/CASEVAC if necessary
3. Fight any fires: Initiate Fire Department response thru Range Operations RTO
4. Gather the following information for Range Operations:
 - a. Date/Time spill occurred, or was discovered: _____
 - b. Name/Rank of person observing the spill: _____
 - c. Location of spill: _____
 - d. Type of spill (material): _____
 - e. Estimated amount of spillage (gal): _____
 - f. Environmental conditions, (wind direction, speed, and etc.): _____
 - g. Mobile container or vehicle: identify one
 - h. Description of area affected or likely to be affected: _____
 - i. Cause of spill: _____
 - j. Description of containment, clean up or other remedial action taken:

5. Advise unit if the spill covers less than 100SQFT, dig to clean dirt double bag and turn in to the HazMat facility just north of Range Operations on Butts Rd.
6. Units must report the spill to Range Operations immediately after above actions have been taken.
7. Range Inspectors/ Range Operations personnel will assist with an on-site visit and supervise as needed to correct the impacts of the spill.

5 Gallons or More

1. The unit must cease movement near the spill.
2. The unit must render First Aid as necessary: Initiate MEDEVAC/CASEVAC if necessary thru the Range Operations RTO.
3. Fight any fires: Initiate Fire Department response thru Range Operations RTO.
4. Gather the following information for Range Operations:
 - a. Date/Time spill occurred, or was discovered: _____
 - b. Name/Rank of person observing the spill: _____
 - c. Location of spill: _____
 - d. Type of spill (material): _____
 - e. Estimated amount of spillage (gal): _____
 - f. Environmental conditions, (wind direction, speed, and etc.): _____
 - g. Mobile container or vehicle: identify one
 - h. Description of area affected or likely to be affected: _____
 - i. Cause of spill: _____
 - j. Description of containment, clean up or other remedial action taken:

5. Advise unit if the spill covers more than 100SQFT or threatens to enter a water course (drainage ditch, stream bed- wet or dry, or depression contain the spill as best as you can and notify Range Operations IMMEDIATELY. Take any further instructions from Range Operations and assistance will be routed to the scene or location
6. Units must report the spill to Range Operations immediately after above actions have been taken.
7. Range Inspectors/ Range Operations personnel will assist with an on-site visit and supervise as needed to correct the impacts of the spill.

Training Area Clearance Plan Inspection Sheet			
Training Areas	Unit Occupying	Date(s)	MDCO
INSPECTION CHECK LIST	SAT	UNSAT	REMARKS
Ruts, Ridges Over Boot High			
Recovered Excavations			
Trees ¼ Severed			
Trash Removed			
Tank Trails and Roads			
Mess Areas (grey water pit)			
Wire			
Portalets (pick up times)			
Stakes			
Brass			
Spills PCL			
Dumpsters			
Excessive Maneuver Reported			
Tentative clearance date and time:			
	Date	Initial inspection	Re-inspection
CDR Signature:			
MDCO Signature:			
FC RO signature:			
OIC/RSO Signature:			
Note: ALL AREAS MUST BE A SAT PRIOR TO FINAL CLEARANCE BEING SIGNED			
Inspectors Comments			

FC Form 1313-6 Revised 12 Aug 2013

Glossary

Section I
Abbreviations

AR
Army Regulation

DA
Department of the Army

DPTMS
Directorate of Plans, Training, Mobilization, and Security

DPW
Directorate of Public Work

ENDEX
End of Exercise

FCMR
Fort Carson Military Reservation

FLIPL
Financial Liability Investigation of Property Loss

GC
Garrison Commander

IAW
In Accordance With

ITAM
Integrated Training Area Management

LRAM
Land Rehabilitation and Maintenance

MDCO
Maneuver Damage Control Officer

MDCP
Maneuver Damage Control Program

MSR
Main Supply Route

PCMS
Pinon Canyon Maneuver Site

POL
Petroleum, Oil, and Lubricants

RTLA
Range and Training Lands Assessment

SOP
Standard Operating Procedure

TA

Training Area

UTM
Universal Transverse Mercator

WGS
World Geodetic System

Section II
Terms

This section contains no entries.

Section III
Special Abbreviations and Terms

This section contains no entries.