DEPARTMENT OF THE ARMY
HEADQUARTERS, UNITED STATES ARMY ALASKA
FORT RICHARDSON, ALASKA 99505-5000

United States Army Alaska Regulation 350-2 **15 July 2002**

Training

United States Army Alaska Range Regulation

Summary. This regulation provides procedures for planning, requesting, and operating ranges and training areas within the United States Army Alaska (USARAK). It mandates specific safety policies for conducting of fire as required by Department of the Army (DA) regulations. Highlights include the range safety certification program, environmental considerations, and guidelines for medical support, demolitions training, and laser operations. Specific chapters provide procedures for scheduling, ammunition handling, direct fire, indirect fire, special ranges, airspace, and nonfiring ranges, and training areas. A detailed description of each facility, by post, is in the appendixes and unique requirements for each are detailed.

Applicability. This regulation applies to all military units, organizations, and authorized individuals and agencies that use ranges and training areas at Fort Richardson, Alaska (FRA), Fort Wainwright, Alaska (FWA) or Donnelly Training Area (DTA). Although the instructions contained in this document are primarily directed toward the designated range officer in charge (OIC) and the range safety officer (RSO), they do not relieve the unit officers and noncommissioned officers (NCOs) of their inherent safety duties and responsibilities. The duty of the range OIC and RSO is to ensure unit personnel adhere to proper procedures. It is imperative that unit officers and NCOs be thoroughly knowledgeable and competent in the performance of their duties.

Supplementation. Supplementation of this regulation is prohibited without prior approval from the Directorate of Plans, Training, Security, and Mobilization (DPTSM), Attention: APVR-RPTM.

Interim changes. Interim changes to this regulation are not official unless the Director of Information authenticates them. Users will destroy interim changes on their expiration dates unless sooner superseded or rescinded.

Suggested improvements. This regulation's proponent agency is the DPTSM. DPTSM invites users to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to APVR-RPTM.

Contents

***This regulation supersedes United States Army Alaska Regulation 350-2, date 1 January 1995.**

Chapter 1
General

1-1. Purpose

This regulation provides policy and procedures for the FRA, FWA, and DTA range/training complexes and implements Army Regulation (AR) 385-62, AR 385-63, and other directives.

1-2. Explanation of abbreviations and terms

The abbreviations and special terms used in this regulation are explained in the glossary.

1-3. References

Referenced publications and forms are listed in appendix A.

1-4. Responsibilities

Users of the range complexes and training areas must be familiar with this regulation, as it is the basis for scheduling and control of ranges, training facilities, maneuver areas, and airspace. The OIC/RSO of a range or OIC/noncommissioned officer in charge (NCOIC) of a training facility are the only individuals authorized to sign for ranges and facilities. They must have available their range certification card and a copy of the approved reservation contract for the scheduled range or training facility during operations.

1-5. Range control

a. Range control is responsible for providing safe, functional ranges and training facilities, assigning priorities, scheduling facilities, and issuing range equipment and targets. Each post has a separate range control organization. The USARAK range manager formulates common policy, manages the assets, and interfaces between range control and USARAK staff.

b. The range operations firing desk is the routine and emergency, communication base station for training. As the designated controlling authority for use of the range complex, range operations issues orders regarding the opening and closing of training facilities, routine and emergency check-fires, resolution of training conflicts, and reallocation of resources. Range control will make every effort to avoid interference with training, but operational and safety directives from range control shift NCOs, range inspectors, range utilization specialists, and the range facilities managers must be obeyed immediately, with discussion and resolution of issues to follow.

c. Range inspectors, under direction of each post's range facility manager, patrol the range complex to assist units in training, conduct courtesy inspections, and enforce this and other related regulations. Range inspectors are authorized to check fire ranges or stop training on facilities if safety violations are noted. Range inspectors also conduct exit inspections of facilities to grant units clearance after training. Range control may use Integrated Training Area Management (ITAM) office or the Directorate of Public Works (DPW), Natural Resources Branch personnel for clearance inspections when necessary. These personnel may also be used for general environmental inspections at anytime at range control's request.

1-6. Risk assessments

Unit leaders using ranges, training facilities, and training areas will conduct a risk assessment of each operation. Range officers (OIC/RSO) are responsible for completing the risk-management, assessment process before opening a range. The process will include all steps, i.e., hazard identification, hazard assessment, development and implementation of control measures, and supervision. Range officers are required to certify in writing that the risk-management process has been completed when signing for

range/training facilities. The risk-management process is in USARAK Regulation 350-1, Field Manual (FM) 25-101, FM 100-14, and FM 101-5.

1-7. Medical support

a. For purposes of this regulation medical support is defined below. These are the minimum essential requirements and do not preclude the OIC/RSO/commander from taking more comprehensive measures. Nonmilitary users of ranges and training facilities requiring medical support are required to coordinate for that support or demonstrate compliance with equivalent resources (emergency medical technician and ambulance or equivalent). When required, medical support will consist of—

(1) A military occupational specialty (MOS)-qualified 91B medic with an aid bag. On some facilities, a combat lifesaver may be used instead of a 91B medic. See appendix B for range specific standing operating procedure (SOP) requirements.

(2) An ambulance or four-wheel drive vehicle with a litter and the capability of transporting a litter patient.

(3) A dedicated driver who knows the route to the medical facility.

b. Medical support as defined above is not required for standard-weapons ranges in the small-arms complex (FRA and FWA) when firing .50 caliber or lower munitions. This is due to the proximity of the ranges to local medical support facilities. It is recommended that units do have as a minimum a combat lifesaver with aid bag and a dedicated vehicle for transportation.

c. Medical support as defined above is required for the following ranges and activities.

(1) Nonlive fire training in training areas usually does not require on-site medical support; however, medical support is required outside of the close-in training areas at FWA (Tanana Flats and Yukon Training Area (YTA)) and DTA.

(2) Hand-grenade ranges, Shoot House, and all standard and nonstandard fire and maneuver courses in the small arms complex.

(3) Ranges or firing points where high explosive (HE) ammunition or explosives are used.

(4) Live-fire, tactical-maneuver courses and overhead-fire courses.

(5) Drop zones (DZs) when used for personnel drops. A standby helicopter must be scheduled to provide additional medical support for all Army personnel drops. The helicopter will standby as close to the DZ as practical for jumps at remote DZs (Husky DZ at FWA is considered a local DZ and aero-medical support can be accomplished from FWA Airfield). The unit scheduled for training will ensure the helicopter support is available and pilots are updated on all time-on-target changes. Range control cannot grant waivers to the helicopter support requirement. Unit failure to coordinate for this additional medical support may result in a delayed or a no-drop situation. Ground-evacuation vehicles may be used when helicopter support is not available to DZs located close to the containment area. (Malamute DZ at FRA is considered local DZ and ground-evacuation vehicles can be used in lieu of standby helicopter support.)

(6) Nuclear, biological, and chemical (NBC) chamber exercises. Additionally the medical support provided must have resuscitative capability.

(7) Water confidence training, bridging operations, amphibious training, or vehicle swimming.

(8) Demolition/mine training on standard and nonstandard ranges.

d. During split-battery operations, a combat live saver may be used at the secondary site as long as the primary site is manned with medical support and a combat lifesaver and medical evacuation (MEDEVAC) vehicle are available for the secondary site.

e. Emergency procedures.

(1) If there is an emergency on a range that does not require on-site medical support, the OIC will contact range control to request assistance. Range control will contact the medical facility for assistance. The calling unit must provide a road guide to escort the medical team to the range. All injury-producing accidents occurring within the training complex will be reported immediately to range control.

(2) On ranges and training facilities that require medical support, units will use their own personnel and equipment to transport injured personnel. All injury-producing accidents occurring within the training complex will be reported immediately to range control.

(3) DTA has no on-site medical support. Units training at DTA will evacuate personnel with life-threatening injuries or injuries of the eye to the designated facility in Delta Junction for treatment. Strip maps and contact information are available from DTA range control. Units will make a practice run to the facility before training to validate the route. All other nonlife-threatening injuries will be evacuated back to FWA for treatment. All injury-producing accidents occurring within the training complex will be reported immediately to range control.

f. **Medical evacuation procedures**. For areas not accessible by ground vehicles, or when ground vehicles would not provide acceptable service, a helicopter for aero-MEDEVAC will be provided. Units will contact range control on frequency modulation (FM) 38.30 to request MEDEVAC assistance. Range control will coordinate with the responsible agency/unit to activate and establish a line of communication with the MEDEVAC. The MEDEVAC aircraft will contact range control on FM 38.30. Once the MEDEVAC is in progress, units will be directed by range control to either monitor and respond on range control frequency FM 38.30 or switch to the MEDEVAC frequency of FM 40.50

(1) For adequate preparation before evacuation, the following information must accompany a request for any MEDEVAC:

(a) Location of pickup site (grid coordinate with common name, if available (e.g., Firing Point 28)).

(b) Radio frequency, call sign, and suffix.

(c) Number of patients by precedence.

(d) Special equipment required.

(e) Number of patients by type (litter or ambulatory).

(f) Number and type of wounds.

(g) Method of marking pickup site.

(h) Patient's status (military or civilian).

(i) Terrain description.

(2) Range control will monitor FM 40.50 and render aid to the MEDEVAC personnel as requested to expedite the evacuation.

(3) When necessary, live-fire facilities will be placed into a check-fire situation to allow the helicopter to enter the area (this includes operations within the restricted area).

(4) Provide landmark information and grid coordinates to aid the pilot in reaching the reported incident. This information will include a description of landing zone, how the landing zone will be marked, and any hazards in the landing-zone vicinity.

(5) Contact the Ground Emergency Response Team (911) and report the incident and location.

(6) Allow training to resume once the MEDEVAC has cleared the area, unless directed to hold training by the safety office or range control.

1-8. Communications

a. The primary means of communication between the training unit and range control is FM radio (FM 38.30) and/or brick radios.

b. Units must establish communication with range control immediately upon occupation of a range, training facility, or training area.

c. Units conducting training are required to maintain constant radio communications with range control. Range control will conduct hourly communication checks with all live-fire ranges and training facilities/ areas that require medical support. Communications checks will be made with all other facilities to open and close the facility. Cellular telephones do not meet the requirement for maintaining constant communications.

d. Loss of communication between a firing unit and range control requires the firing unit to come to an immediate cease fire until communication is restored. The unit will then obtain permission from range control to resume firing.

e. Failure to establish communication and continuously monitor range control constitutes a violation of this regulation and may lead to training-exercise suspension.

f. Range control will not pass routine unit administrative messages between garrison and field units; they must use internal radio nets. Signal operation instruction units having FM 38.30 in their signal operation instructions will not use that frequency. This net will not be used for garrison radio checks or other nontraining administrative functions. FM 38.30 will not be used except for communication with range control.

1-9. Helmets and hearing protection

Kevlar helmets are not required when utilizing standard, small-arms ranges, .50 caliber or less. As an added safety precaution, commanders are encouraged to require Kevlar helmets when prescribing the range uniform. Kevlar helmets are required when maneuvering with live-ammunition, indirect, or overhead fire ranges, during use of HE munitions, demolitions, and parachute jumps. Helmets will also be worn by personnel using the rappel or jump refresher towers, and when performing duties in the pit on the Known Distance Range. Hearing protection is required during all live-fire training.

1-10 Alcoholic beverages

Units may not schedule the range complex or training area for picnics or social events. Alcoholic beverages are prohibited on the complex.

1-11. Authorized use

All parts of the range complex are off limits, day and night, to all units and all personnel, military or civilian, without approved scheduling or a use permit. Reconnaissance by military personnel for future training is authorized after check-in at range operations but will not interfere with ongoing training.

1-12. Unit construction

Construction of barriers, emplacements, or other structures must be noted on a memorandum to range control during scheduling. Some construction may require an environmental evaluation (see chap 2). The local, range-facility manager must approve all construction on, or additions to, ranges and facilities. Barriers and emplacements must be removed after use unless prior permission to leave them has been obtained from range control.

1-13. Privately owned vehicles and weapons

a. Privately owned vehicles are prohibited on but may be parked in areas designated for privately owned vehicle parking within a small arms complex. Privately owned vehicles may also be parked at the following nonfiring training facilities:

(1) Jump Tower.

(2) Rappel Tower.

(3) Obstacle Course.

(4) NBC Chamber.

b. Permission for privately owned vehicle access to other areas within the range/training complex must be reviewed and approved by the appropriate range control. Allowing individuals to drive and park their privately owned vehicles in designated areas is for their convenience and as such, if their vehicle is damaged (i.e., get stuck in mud/snow, flat tire, etc.), they will not be entitled to file a claim against the government. This policy does not override the prohibition against transporting military weapons in privately owned vehicles.

c. Privately owned weapons will not be taken into training areas or onto ranges in conjunction with military operations.

1-14. Recreational activities

a. The use of Army ranges and training areas for recreational purposes is authorized subject to the provisions outlined in AR 385-63 and the general safety restrictions contained in this regulation. Areas not authorized for recreation include impact areas, rappelling towers, small-arms ranges (except as outlined in para b below) and areas published in the post weekly bulletin as being a danger area, restricted area, or off-limits area. Recreational users of ranges or training areas will coordinate with the military police desk sergeant (SGT) before entering the range/training area.

b. All recreational and sport-firing activities will be conducted per the procedures outlined below.

(1) An outdoor rifle and pistol range where sport-firing activities may be conducted is designated as the Sports Fire Range. The Known Distance Range at FWA and DTA may be used as a sports-fire range.

(2) Each range will have a written SOP, which has been approved by the local facility manager.

(3) Each range will be operated under the supervision of range-safety-certified personnel.

c. Posts may also operate a skeet/trap range. If established, these ranges will conform to the requirements outlined in AR 385-63 and the Folio of Standard Drawings, EP1110-1-6: Outdoor Sports Facilities published by the Office of the Chief of Engineers. The skeet/trap range is controlled by morale, welfare, and recreation.

1-15. Maps

Maps of the military reservation area can be ordered through your unit supply system. Additional information is available on Directorate of Logistics website (https://dol.richardson.army) or by calling 384-7101. Special interest maps (wetland overlay or environmental pre-approval) are available from the ITAM office at range control.

1-16. Training areas

Lands available for tactical and field training exercises are divided into training areas and are identified by numbers on the post 1:50,000 special map. Training area scheduling procedures are shown in chapter 3. Access for any purpose must be coordinated with and approved by range control.

1-17. Range and training area maintenance program

This regulation assigns ranges, facilities, and training areas to installation units for police and maintenance (see app C). Units conducting maintenance or police based on the requirements in this regulation are required to schedule their activities through range scheduling. Some materials and assistance are provided by range control.

1-18. Certification procedures for range officer in charge and range safety officer

a. For all live-fire and training facilities that require medical support, OICs and RSOs must be safety certified. Certification is completed as follows:

(1) The range OIC/RSO candidate must be familiar with this regulation, AR 385-63, the FMs, and technical manuals (TMs) that apply to the weapon systems or training event.

(2) The unit commander ensures the candidates are familiar with the regulations, FMs, and TMs mentioned in paragraph (1) above and are knowledgeable in the weapons and/or equipment for the proposed training event.

(3) A certificate of qualification memorandum (sample at fig 1-1) must be submitted to range control before the class, listing the candidates who will receive the range-safety briefings and take an open-book, range-safety, certification test. Individuals who show up but are not listed on a certificate of qualification will not be briefed or tested. Candidates must receive a passing score (80 percent or higher) on the range-safety, certification test to be qualified as range OIC or RSO.

(a) Range-safety certification and environmental briefings are given by range control the first Monday of each month and at other times by appointment. If the first Monday of the month is a Federal holiday or a USARAK training holiday, the class will be taught on the following Monday.

(b) Certification is valid for 1 year from date of issue.

(4) The range OIC/RSO will be issued a range-safety-certification card from range control that is annotated with a control number, weapons authorized, and the expiration date. The card will be presented to range control when signing for a range and whenever the individual is performing duties of range OIC or RSO.

(5) A record of briefing will be annotated on the unit certification memorandum and kept on file at range control for 1 year. The OIC/RSO who transfers between units must be added to a certificate of qualification by the gaining commander.

b. Personnel involved in accidents or incidents will be suspended from certification during subsequent investigations. Unit recertification may be required.

c. Range control conducts periodic briefings for special certifications, including laser and Shoot House. Information on briefing dates, times, and locations is available from range control.

d. Units utilizing range facilities on a post to which they are not assigned will be briefed by range-control personnel before range usage. Range certification from all posts will be recognized. Units that are not stationed in Alaska will have their certification administered by range control at the post where they will be training. This certification will be valid for the duration of the visit.

e. All units firing field artillery and mortars must establish and maintain a command safety certification program for personnel participating in and controlling indirect-fire exercises. FM 6-50 and FM 23-90 provide specific data for artillery and mortar safety. Proficiency is tested during the gunner's exam.

f. Combined-arms, live-fire exercise (CALFEX) or live-fire, maneuver exercise certification is conducted by senior commanders (see para 8-3). Commanders will provide range control with a list of individuals certified.

g. The USARAK demolitions certification program requires that each engineer company commander (C/84th Engineer Battalion, C/864th Engineer Battalion, and the 562d Engineer Battalion) conduct an internal, demolition-safety program and provide range control with a list of certified individuals.

(1) The 716th Explosive Ordnance Detachment commander may certify explosive-ordnance-disposal personnel.

(2) The Cold Region Test Center commander may certify Cold-Region-Test-Center personnel.

(3) If a unit within 172d Infantry Brigade requires demolition safety certification, they will coordinate for support through the 562d Engineer Battalion. Other units will coordinate for demolition certification support through the Special Troops Battalion. Certification will be conducted on an as-needed basis.

h. The purpose of the command certification program is to train and qualify individual members in the safety procedures for their specific areas of responsibility.

(1) The command certification program is administered at the battalion/brigade level. As a minimum, certification is required for personnel serving as—

(a) Artillery, mortar, or demolition range OIC or RSO.

(b) Firing battery commander.

(c) Battery executive officer.

(d) Mortar platoon leader.

(e) Artillery fire direction officer/fire direction center chief.

(f) Artillery chief of firing battery.

(g) Artillery gunnery SGT.

(h) Mortar platoon SGT.

(i) Artillery howitzer section chief.

(j) Combat engineer.

(k) Construction engineer supervisor.

(l) Chemical operations NCO.

(m) Demolitions, indirect-fire, and chemical-test personnel.

(n) OIC or RSO for maneuver live-fire exercises/CALFEX.

(2) A roster of individuals appointed to perform duties of the range OIC and RSO of demolition or indirect-fire ranges or live-fire, maneuver exercises, or CALFEX will be submitted to range control. Individuals appearing on the roster must attend the general, range-safety certification briefing and receive a passing score on the open-book, range-safety test.

Table 1-1
Range officer in charge and range safety officer requirements

Weapon System or Device	Range	RSO
81mm Mortar	SFC and up	SSG and up
60mm Mortar	SSG and up	SGT and up
Practice hand or rifle grenades, subcaliber training devices, lasers, firing device simulators, trip flares, small-arms, and machine guns	SSG and up	SGT and up
Chemical training munitions and smoke. See note 1.	SGT and up	None
Aerial gunnery, air defense weapons, flame throwers, HE hand or rifle grenade, Shoot House, recoilless weapons, rockets, mines, and demolitions. Infiltration courses and guided missiles.	SFC and up	SSG and up
Artillery. See note 2.	Officer	SSG and up
Live-fire exercises using organic weapons (does not include indirect fire). See Note 3.	SFC and up	SSG and up
Combined arms, live-fire exercise using external fire support	LTC and up	Officer

Notes:

1. For NBC or smoke training, the OIC must be NBC qualified, either by award of NBC MOS or by graduation from an installation NBC school.

2. Use of SFC and above to act as OIC of artillery firing ranges is authorized only when approved by the commanding general.

3. The range OIC will be a field grade officer for battalion and larger size units.

Legend: mm-millimeter; SFC—sergeant first class; SSG—staff sergeant; LTC—lieutenant colonel.

(Office Symbol) (MARKS) (Date)

MEMORANDUM FOR Range Control

SUBJECT: Certificate of Qualification

1. Reference AR 385-63 and USARAK Regulation 350-2

2. The following personnel are trained per the references and are certified to perform the duties listed therein. Request a range-control, safety briefing and clearance to receipt for and operate training facilities as range OIC or RSO.

Name	Rank	SSN	MOS	Certification
Doe, Joseph M.	1LT	000-00-0000	31U	Rifle, pistol
Doe, Charles K.	SFC	000-00-0000	54E	Rifle, pistol, NBC
Doe Richard B.	SFC	000-00-0000	54B	Rifle, pistol NBC (graduate of United States Army, Europe school
Doe, Ronald P.	CPT	000-00-0000	54B	NBC graduate (Fort Polk school graduate plus para 3)
Doe, John 0.	SGT	000-00-0000	54E	NBC (MOS 54E)
Doe, Robert S.	SSG	000-00-0000	92Y	See paragraph 3
Doe, Roger S.	MSG	000-00-0000	71L	Rifle, hand grenade, claymore

3. Commanders may use this paragraph for a comprehensive list of weapons and facilities, to avoid excessive bulk in the certification column of paragraph 2 above, or to list some special qualification or limitations.)

4. This certificate is effective for 1 year from date of issue.

Signature block of unit commander
or individual on orders as
acting commander

Note: This memorandum must be typewritten and carry an original signature.

Figure 1-1. Sample certificate of qualification memorandum

Chapter 2
Protection of Environmental Resources during Training

2-1. General

a. The intent of this section is to enhance training by conserving the training environment and terrain. It is extremely important to use the training resources to your advantage while conserving them for future use. Preventing maneuver damage and maintaining the training quality is a command responsibility. Training will be conducted in a manner that ensures optimum use of the land while adhering to environmental and natural resource regulations, policies, and planning decisions. The Army has an obligation to act responsibly and effectively in the use of land and other natural resources required in fulfilling its mission.

b. USARAK is dedicated to maintaining and enhancing the quality of its training lands. This allows for the most realistic training opportunities possible. In fact, the ability to uphold the Army's mission depends on training lands that provide authentic combat conditions. Authentic conditions cannot be met when training lands are damaged.

c. To guide and regulate the actions of Army personnel using and managing training lands, the Army has developed the ITAM program. The goals of ITAM program are to evaluate, repair, maintain, and enhance training lands. A major component of the ITAM program is environmental awareness, and this regulation is an essential part of the environmental awareness program. Environmental awareness is important to maintain and enhance the quality of training lands and to comply with federal, state, and Army laws and regulations that require all Army personnel to maintain certain environmental standards and record keeping.

d. Most of USARAK land was withdrawn from the public domain to support the Army's mission. While military training is the dominant use of these lands, the Army is required to manage the land for multiple use as long as the military mission is not compromised. Multiple-use activities and opportunities include hunting, fishing, trapping, kayaking, rafting, canoeing, hiking, mountain climbing, downhill and cross-country skiing, off-road vehicle use, biking, berry picking, wildlife viewing, and scouting. The Army is also mandated to protect sensitive and fragile areas such as wetlands and alpine tundra. In addition, USARAK is home to hundreds of wildlife species, which must be managed and protected.

2-2. Policy

Today's environmental laws are the result of public awareness and concern about environmental damage. The Army acknowledges these concerns and recognizes that many environmental laws directly benefit the Army by ensuring protection of irreplaceable training lands. The regulatory agencies with environmental jurisdiction over USARAK include the federal and state governments, as well as the Army and each post. Presidential Executive Orders are another source of regulatory mandates. For each jurisdictional level, a brief description and synopsis of the environmental laws and regulations affecting USARAK's personnel and actions are provided in the sections below. For important details on the applicable laws and regulations, contact the DPW, Environmental Resources Division.

2-3. Federal laws

a. National Environmental Policy Act laws cover all federal agencies receiving federal funds. Of all environmental laws, the National Environmental Policy Act affects military activities most. The law's intent is to assure all Americans and their future generations that the environment will be safe, healthy, productive, and beautiful. Through a process of review and documentation, the law directs all federal and federally funded agencies to evaluate the environmental consequences of proposed actions and consider alternatives that can mitigate any potential impacts. The documentation of potential impacts may include—

(1) An environmental checklist.

(2) A record of environmental consideration.

(3) An environmental assessment.

(4) An environmental-impact statement.

b. In most cases, an environmental checklist and record of environmental consideration are sufficient for satisfying the National Environmental Policy Act requirements. When these are not sufficient, an environmental assessment must be prepared.

c. AR 200-2, which addresses the environmental effects of Army actions, requires an environmental assessment for—

(1) Actions that could cause soil erosion or add fill material into a wetland (which would result in a violation of the Clean Water Act).

(2) Actions affecting any federally or state listed species of endangered or threatened plants and animals or any species proposed for listing.

(3) Actions affecting cultural resources.

d. If a proposed action will not lead to a significant environmental damage, the environmental assessment leads to a “Finding of No Significant Impact.” If, however, the environmental assessment reveals the potential for significant environmental impact, there will be a notice of intent to prepare an environmental-impact statement. The environmental-impact statement details all potential impacts, and, when completed, it will result in a “record of decision,” which approves or denies the proposed actions or alternatives.

e. National Environmental Policy Act review processes are conducted by the DPW, Environmental Resources Division. Units conducting training actions must notify the DPW, Environmental Resources Division at least 60 days before scheduled actions take place and provide the information necessary for the DPW, Environmental Resources Division to develop the record of environmental consideration. If it is determined that more than a record of environmental consideration is required, the DPW, Environmental Resources Division will notify and coordinate with the unit involved. An environmental assessment can take up to 6 months to complete, and an environmental impact statement can take years. Keep in mind these facts as training exercises are being planned.

f. Other major environmental laws include:

(1) Clean Water Act (1972, as amended through 1987). The Clean Water Act requires a Section 404 wetlands permit for any activity that will fill or potentially fill (includes digging) wetlands.

(2) Clean Air Act (1970, as amended through 1990).

(3) Endangered Species Act (1973).

(4) National Historic Preservation Act (1966).

(5) Resource Conservation and Recovery Act (1976, as amended through 1984).

(6) Toxic Substances Control Act (1976).

(7) Noise Control Act (1972).

(8) Sikes Act (1962, as amended through 1998).

2-4. Executive orders

Executive Order 12088, issued by the United States President, directs federal agencies to control and monitor environmental pollution resulting from federal actions. Executive Order 12114 addresses environmental impacts caused by federal agencies outside United States boundaries.

2-5. State laws and regulations

Environmental laws vary from state to state, and they vary with respect to their relationship with federal laws. Alaska State Law Title 46 requires reporting of any spill or release of oil or hazardous substance.

2-6. Army and United States Army Alaska regulations

a. There are three important ARs that affect your activities on any military installation: ARs 200-1, 200-2, and 200-3. Essentially, they mandate that the Army comply with federal laws and integrate environmental protection with planning and executing military operations. The Army has also adopted a set of environmental quality goals, which include additional mandates:

(1) Demonstrate leadership in protecting the environment.

(2) Minimize negative impacts while ensuring combat readiness.

(3) Restore environmental quality.

(4) Support Army recycling and conservation programs.

(5) Prevent and minimize pollution and waste.

(6) Develop strong public relations with neighboring communities.

b. Other Army and USARAK regulations include:

(1) AR 200-4.

(2) AR 200-5.

(3) AR 420-49.

(4) USARAK Regulation 200-4.

2-7. Wetlands

a. USARAK has obtained a 5-year general wetland permit to conduct military training in wetlands at FWA and DTA. This permit allows limited maneuver or other military activities to occur in some wetland areas, a change from the past, where no activity was permitted at all. Impacts to wetlands from training activities on FWA and DTA may not damage more than 40 acres per year per post (FWA and DTA). If that amount is exceeded, training in wetlands will be prohibited and individuals may be liable for fines and other penalties. Restoration of any such damage is mandatory.

b. As part of the mitigation for potential damage, the **environmental pre-approval overlay** must be used when requesting to train in wetland areas in order to avoid possible fines. The overlay clarifies which activities are approved/restricted for each training area. The environmental pre-approval overlays are described in detail in paragraph 2-8.

c. Upon completion of any activity occurring in a wetland, ITAM staff is required to check the area for damage and make arrangements with the unit for mitigation or restoration.

d. New permanent construction (buildings, roads, pads, etc.), weapons firing into impact areas, bank stabilization, unexploded ordnance, recreational activities, or ice bridges are not covered in this permit and require a separate, individual wetland permit and/or other permits.

e. Use of wetland areas at FRA also requires a wetland permit. Depending on the activity, this process can take up to 6 months. Consult the ITAM/environmental office early.

f. In addition to use of the environmental pre-approval overlays, several additional conditions must be met as part of the 5-year wetland general permit. These include:

(1) Only the minimum footprint necessary shall be used for training. Wetland areas adjacent to military operations not necessary for training will not be encroached upon, thus minimizing additional disturbance.

(2) Only 10-percent, incidental damage is permitted in any given area or trail. This 10-percent figure refers to the clearing of the vegetative mat and the exposure of bare soil. Once that amount has been exceeded, the areas or trail must be rotated out of use until the area has sufficiently recovered and can once again support training. The percentage of incidental damage will be monitored by ITAM personnel.

(3) When utilizing yellow areas adjacent to red areas, ITAM/environmental staff must flag a 50-meter buffer around the utilized area. The unit must remove flagging before leaving the area.

(4) During excavation activities, the vegetative mat must be stockpiled so that it can be used for reclamation after the exercise.

2-8. Environmental pre-approval overlays

The environmental pre-approval overlays were developed as a tool for planning military training activities. Approved/restricted activities are listed in three color-coded categories. The environmental pre-approval overlays are available at each range control or ITAM office. ITAM or range staff will provide instruction on use of overlay. Each overlay is available in a summer and winter version. Check with range control for which version you should be using when planning your activity. The three categories on the overlays are described in tables 2-1 and 2-2.

Table 2-1
Definition of land use categories used on environmental pre-approval overlays for USARAK during summer months

Category		Approved Activity Summer	Limited Activity (requires range control approval on a case-by-case basis)	Prohibited Activity
GREEN	No limitations or restrictions	- Tracked, wheeled, and foot maneuvers - Bivouacs - Defensive fighting positions - Digging - Earth moving - Field kitchens - Laundry and bath facilities - Water purification - Portable latrines - Slit trenches - Vehicle decontamination training - Timber cutting (under 4 inches diameter) - POL distribution	- Smoke generation - Fuel farms	None
YELLOW	Minor limitations or restrictions	- Tracked, wheeled and foot maneuvers - Bivouacs - Assembly areas - Defensive fighting positions - Timber cutting (under 4 inches diameter)	- Digging - Earth moving	- Laundry and bath facilities - Portable latrines - Slit trenches - Vehicle decontamination training - Smoke generation - Fuel farms - POL distribution
RED	Significant limitations or restrictions	- Foot maneuvers	- Tracked and wheeled maneuvers	- Bivouacs - Assembly areas - Defensive fighting positions - Timber cutting (under 4" diameter) - Mechanical digging - Earth moving - Laundry and bath facilities - Portable latrines - Slit trenches - Vehicle decontamination training - Smoke generation - Fuel farms - POL distribution

Legend: POL—petroleum, oils, and lubricants.

b. Summer special conditions. The red and yellow categories on these overlays each have special conditions that must be observed while training in those areas.

(1) Green. No environmental restrictions. However, all normal procedures outlined elsewhere in this regulation should be followed. Smoke generation and fuel farms in areas, represented as green on the overlay, require prior approval from range control on a case-by-case basis.

(2) Yellow. Notify range control when planning to train in yellow areas. Environmental/ITAM staff must presurvey the area. Stream crossings are permitted at 90-degree angles only.

(3) Red. Notify range control when planning to use red areas. Environmental/ITAM staff must presurvey red areas to determine on-the-ground limits of each red area. Open water and streams have 50 meter buffers around them—NO VEHICLES IN BUFFER—FOOT MANEUVER ONLY. Vehicular maneuver is not allowed except during stream crossings, which must be crossed at a 90-degree angle to the direction of the stream flow. No stream crossing is allowed at shear or cut banks. Earth moving, mechanical digging, bivouacs, assembly areas, fighting positions, timber cutting, laundry and bath sites, portable latrines, slit trenches, vehicle decontamination, smoke generation, and any petroleum, oils, and lubricant (POL) distribution are restricted in any area designated as red on the overlay.

Table 2-2
Definition of land use categories used on environmental pre-approval overlays for USARAK during summer months

Category		Approved Activity Winter	**Limited Activity** (requires range control approval on a case-by-case basis)	Prohibited Activity
GREEN	No limitations or restrictions	- Tracked, wheeled, and foot maneuvers - Bivouacs - Defensive fighting positions - Digging - Earth moving - Field kitchens - Laundry and bath facilities - Water purification - Portable latrines - Slit trenches - Vehicle decontamination training - Timber cutting (under 4 inches diameter) - POL distribution	- Smoke generation - Fuel farms	None
YELLOW	Minor limitations or restrictions	- Tracked, wheeled and foot maneuvers - Bivouacs - Assembly areas - Defensive fighting positions - Timber cutting (under 4 inches diameter)	- Digging - Earth moving - Snowplowing - Stream crossing with ADF&D permit	- Laundry and bath facilities - Portable latrines - Slit trenches - Vehicle decontamination training - Smoke generation - Fuel farms - POL distribution
RED	Significant limitations or restrictions	- Foot maneuvers	- Tracked and wheeled maneuvers - Stream crossing with ADF&D permit	- Bivouacs - Assembly areas - Defensive fighting positions - Timber cutting (under 4 inches diameter) - Mechanical digging - Earth moving - Laundry and bath facilities - Portable latrines - Slit trenches - Vehicle decontamination training - Smoke generation - Fuel farms - POL distribution

Legend: POL—petroleum, oils, and lubricants; ADF&G—Alaska Department of Fish and Game.

c. Winter special conditions. The red and yellow categories on these overlays each have special conditions that must be observed while training in those areas.

(1) Green. No environmental restrictions, however all normal procedures outlined elsewhere in this regulation should be followed. Smoke generation and fuel farms in areas, represented as green on the overlay, require approval from range control on a case-by-case basis.

(2) Yellow. Notify range control when training in yellow areas. Environmental/ITAM staff must presurvey area. Stream crossings are allowed at 90-degree angles only. Use caution when snowplowing. A minimum of 6 inches of snow pack must remain on trails or other clearings to minimize damage to vegetation and soils. Activities limited in areas shown as yellow on the overlay include tracked and wheeled maneuvers, bivouacs, assembly areas, defensive fighting positions, and timber cutting. These activities may be approved on a case-by-case basis by range control or the ITAM office if there are no seasonal wildlife restrictions.

(3) Red. Notify range control when using red areas. Environmental/ITAM staff must presurvey red area to determine on the ground limits of each red area. Open water and streams have meter buffers around them—NO VEHICLES IN BUFFER—FOOT MANEUVER ONLY. Vehicular maneuver is not allowed except during stream crossings, which must be crossed at a 90-degree angle to the direction of the stream flow. No stream crossing is allowed at shear or cut banks. Earth moving, mechanical digging, bivouacs, assembly areas, fighting positions, timber cutting, laundry and bath sites, portable latrines, slit trenches, vehicle decontamination, smoke generation, and any POL distribution (fuel farms and tankers) are restricted in any area designated as red on the overlay.

2-9. Environmental considerations

a. Digging.

(1) Mechanical digging and earth moving is limited to areas shown on the environmental pre-approval overlay. Foxholes, trench systems, tank traps, hull down positions, explosive excavations, etc., must be refilled and leveled before redeployment. Where excavation is required, the organic layer will be removed first and stockpiled so it can be spread over disturbed sites after back filling is complete. All overhead cover, such as logs, must be disassembled and scattered. Wire, rope, and string will be removed and disposed of properly.

(2) Units and range control will ensure that no digging takes place in wetlands without a permit.

(3) Dig permits are required for activities occurring within the local training areas at all posts. Contact DPW to determine what areas require a dig permit. Dig permits can be obtained at DPW.

b. Snow plowing.

(1) Exercise caution when snowplowing trails and bivouac sites in the winter. A minimum of 6 inches of snow must remain on the ground when plowing trails, bivouacs, tactical operation centers, etc. The blade must be kept elevated to avoid tearing up the vegetative mat or soil beneath the snow pack.

(2) Snow berms around tactical operation centers, battalion support areas, etc., must be leveled after the exercise.

(3) Plow debris must not be pushed on top of any lakes or streams in winter. Large areas of woody vegetation must not be disrupted.

c. Vehicle movement.

(1) Vehicles will remain on marked trails and designated routes except when directed otherwise during tactical deployment. Vehicles will drive on established roads during administrative time. During breakup (usually 1 April through 15 May), all vehicles are restricted to established roads and dry trails. During summer months (usually May through September), cross-country movement is permitted in all areas except designated creek bottoms, lakes, streams, and open, flowing water as shown on the environmental pre-approval overlay. No tracked or wheeled maneuvering is permitted within a 50-meter buffer around all streams, lakes, and any open, flowing water during the summer unless crossing at a 90-degree angle to the stream. Fish spawning streams will not be crossed during summer. Vehicular stream crossing is allowed in winter months (usually October through March) at permitted ice bridge sites and other areas if there is no flowing water. Tactical turns, such as missile avoidance or neutral steer turns, will be avoided unless absolutely necessary. Vehicles will not drive directly up steep hills.

(2) Movement into off-limits areas is strictly prohibited. Personnel found in violation are subject to disciplinary action.

(3) Parked tactical vehicles must have drip pans placed under the vehicle at all times to catch any oil or fuel dripping from the vehicles.

d. Vegetation (camouflage).

(1) Live trees greater than 4 inches in diameter will not be cut or damaged during training without prior approval. If trees larger than 4 inches in diameter are required, contact the DPW, Environmental Resources Division for an approved area to cut in. Destruction of trees and brush must be avoided unless it is required to achieve training objectives.

(2) Trees less than 4 inches in diameter may be cut without coordination with the DPW, Environmental Resources Division, if necessary to achieve training objectives. Spruce boughs (limbs) may NOT be cut from live, standing trees. Boughs may be obtained by cutting spruce trees under 4 inches in diameter. Remaining stumps must not be more than 6 inches tall.

(3) Use camouflage nets instead of live vegetation. The nets are designed to break up the visual lines of equipment and structures. Once live vegetation is cut, it wilts quickly, and does not conceal your position.

(4) Communications wire, power lines, and auxiliary cables should be strung along the edge of open areas or trails and run along the ground when feasible and compatible with training objectives. When it is necessary to suspend wire above the ground, care should be taken not to break trees, branches, stems, etc., and the use of nails and wire loops should be minimized.

e. Policing.

(1) Police all training areas before, during, and after use. Even if it is not your litter, pick it up, because it can give away your position. All cartridges, tubes, containers, packing material, and all other material introduced into the environment in conjunction with maneuver activities will be removed to the maximum practical extent. Remove all barbed, communications, concertina, and trip wire and properly dispose of it per post procedures. Wire left behind can injure wildlife and recreational users of the land.

(2) Under no circumstances will units bury or burn waste.

(3) All vehicles are required to have a supply of plastic garbage bags for trash collection.

(4) ITAM/environmental staff is required to assist range control when clearing units from training areas.

f. Fish and wildlife.

(1) Harassment of fish and wildlife is prohibited. Any action that disturbs fish and wildlife is considered harassment by federal and Alaska State law. Harassment includes such things as pursuit with vehicles or aircraft, feeding, and shooting of wildlife. Individuals who harass fish and wildlife are subject to prosecution.

(2) Dedicated impact areas are permanently off limits and training areas may be temporarily closed during periods of significant wildlife use. The Alpha Impact Area at FWA is closed 15 May through 30 June for moose calving and cannot be used for artillery or mortar firing.

g. Fires.

(1) Immediately report all fires to range operations or the fire department. Know the grid location, fire nature, and size. Units are to stop training and assist the fire fighters except when the fire is in an impact area.

(2) The use of pyrotechnics, smoke pots, and grenades may be restricted when fire danger is high. Smoke grenades and star-cluster flares will be used only for emergency operations during high fire-danger times.

(3) Burn pans are required to burn excess powder charges and all residue from burn pans will be treated as hazardous material.

(4) Open fires are **prohibited** except in emergencies or as part of approved training exercises. Units desiring to build fires should submit a request to burn to range control. The request should include materials to be burned, quantity, length of burning, and the location. The request should be submitted in advance of the planned burning.

h. Off-limits areas. All areas within 1/2 mile of the military reservation boundaries are closed to training activities as a buffer to adjacent, nonmilitary land uses. The 1/2-mile restriction does not apply to the close-in training areas. Exceptions include all access routes and those areas specifically approved by range control. Improved recreational areas are closed to training unless otherwise approved by the DPW, Environmental Resources Division.

i. Noise.

(1) Firing demolition, artillery, and mortar is prohibited from 2200 to 0600 except for the Yukon Stuart Creek area. Demolition charge sizes are limited as noted in chapter 9. In addition, any training activity that generates noise (firing of blanks, pyrotechnics, simulators, etc.) between 2200 and 0600 in areas adjacent to populated areas is prohibited.

(2) Exceptions to firing hours require public notification of late firing. An exception to firing hours can be obtained by submitting a late-fire request (see sample at fig 2-1) to range control. Range control will submit the notification to the public affairs office so that a notice of firing (see sample at fig 2-2) can be published. Late-fire requests must be submitted 12 working days before the desired training event.

j. Cultural resources. Identified historical and archaeological sites will be left undisturbed. Any historical or archaeological discoveries made as a result of any military activities should also be left undisturbed and must be reported immediately to the DPW, Environmental Resources Division.

k. Public access. Per Public Law 87-327 and AR 200-3, USARAK controlled lands, when not scheduled for training, are open to civilians and off-duty military personnel for outdoor recreation such as hunting, fishing, trapping, berry picking, hiking, and nature photography. Units may encounter these people during the conduct of training. If the presence of civilians interferes with training activities, units will contact range

control to have the civilians removed. Under no circumstances will trap lines or trapped animals be disturbed.

l. Petroleum, oils, and lubricants.

(1) Alaska State law requires that **ALL** spills be reported and cleaned up. A spill can be as little as one drop of POL if it hits the ground. Failure to report a spill will result in punishment of the individual(s) responsible.

(2) POL distribution points and refueling operations shall be set up and operated per USARAK Regulation 200-4. Drip pans must be used at all dispensing points. Each unit shall have a spill kit available that consists of at least a shovel, absorbent material (dry sweep), plastic bags, and drip pans. Improper handling of POL products constitutes gross negligence, punishable by fine or imprisonment.

(3) Immediately report POL spills to the fire department and range control. Know the size, location, and type of POL spill. Take immediate action to control, contain, and clean up the spill per the Installation Spill Contingency Plan. Failure to immediately report spills may result in prosecution.

(4) All hazardous wastes and materials will be handled per the USARAK hazardous waste and materials management plan for each post. All disposal actions will be coordinated with the DPW, Environmental Department.

(5) Always turn in unused or waste oil and fog oil (see USARAK Regulation 200-4) for recycling along with empty drums and other hazardous wastes, such as old batteries, solvent, and paints.

2-10. Field sanitation

Human waste disposal procedures during training differ from those during combat conditions. The “bag and drag” method is not authorized on FRA lands and selected off-post training sites, due to recent environmental restrictions.

a. Fort Richardson. Waste disposal will follow either paragraph c or d below. Slit trenches and cat holes can be used during the summer on Training Areas 14A, 14B, and 14C. This policy applies to FRA training land users.

b. Fort Wainwright. Slit trenches and cat holes may be used for summertime disposal in the YTA. Bagged human waste from other areas will be disposed of at the FWA post landfill year round. Human waste may not be disposed of in any of the Eielson Air Force Base dump locations when leaving the YTA.

c. Fort Richardson disposal procedures.

(1) Sealable, reusable, 15-gallon cans and large holding tanks will be used for human waste during field activities. Plastic bag liners are not authorized. Major units may obtain an initial issue of these containers and are expected to issue them to subordinate units. The cans are heavy-gauge steel with removable lids and gaskets that are held in place with clamping rings. Units will maintain these cans and requisition replacements (National Stock Number 8110-00-254-5717).

(2) The number of cans needed can be calculated as 4 percent of the number of soldiers deployed per day. For example, if 130 soldiers are in the field for 3 days, 4 percent of 130 is 5.2 (cans). Multiply 5.2 (cans) by 3 (days), which equal 15.6 (or 16) (cans). Thus, 16 cans are required for 130 soldiers for 3 days.

(3) When paragraphs (1) and (2) above do not apply, units will write an SOP on waste disposal procedures. The following information should be included:

(a) No plastic liners permitted. One of the reasons the “bag and drag” method was discontinued is because bags were put into the sewer system and plugged it.

(b) Cans originally issued will be numbered. The supply officer or separate companies will track the assignment of the cans and any additional cans obtained. Cans not returned and accounted for after a field exercise will be retrieved and disposal procedures followed.

(c) Simple Green or other cleaners and brushes may be used to clean the cans and reduce odor in the field.

(d) Cans should be carried by two soldiers; they weigh approximately 100 pounds full.

(e) If the cans freeze, they can be thawed before emptying.

(f) Take care to ensure an airtight seal is maintained. Rubber gaskets and clamping nuts and bolts can be easily lost or broken, and the clamping ring sprung.

(g) The cans may be dumped into unit latrines and sanitized there, or into the DPW’s evacuator truck pad. Units must schedule an appointment with DPW for access during duty hours. A detail NCO will be in charge of the soldiers and will clean up the evacuator pad to DPW’s satisfaction. Units may contact DPW, Roads and Grounds Division at FRA for access to the wash pad.

(h) Raingear, gas masks, and chemical gloves are appropriate attire for the cleaning detail. Units may also procure disposable coveralls, goggles, and rubber gloves from the General Services Administration.

(i) Waste will NOT be buried, burned, or dumped in manholes, streams, the Black Spruce campground dump station, or fixed latrines at ranges or training areas. Visiting units who frequently use FRA land may procure their own drums (National Stock Number 8110-00-254-5717 ($35.00 each)).

(j) Units will maintain and issue cans and write an SOP implementing this change and ensure field sanitation is addressed in operation orders. Replacement cans must be funded and ordered from unit resources. The DPW will prepare and issue cans and devise a procedure for units to dump them.

d. Alternatives (recommended for FRA and Donnelly Training Area).

(1) Units can activate a standing contract for portable latrines through the Directorate of Contracting. However, contractors may have difficulty responding to changing tactical situations and the contractor’s trucks will not have the same mobility in range areas that unit vehicles do.

(2) Use the permanent latrines for human waste, when available. Where permanent latrines are not available, unit commanders must provide ample portable latrines. Unit commanders are personally responsible to prevent contamination of water resources.

(3) Cat holes are for emergencies only and permissible for groups of five or less.

e. Off-post training areas. The rules for human waste disposal on off-post lands are specified in the permit or contract and will be issued as part of the approval for their use. The rules for Spencer and Knik Glaciers are known. Solid human waste must be backhauled. Since access is limited and units are rotated back to back, cans can be exchanged via helicopter. Extra cans should be on hand in case weather prevents flights.

2-11. Damage control

a. Careless use of the training areas will result in terrain damage. If the mission of USARAK is to be fulfilled, realistic training conditions are required. Maneuver damage will decrease the training realism. This will result in substandard training conditions and will undermine the training mission. Maneuver damage needs to be kept to a minimum. The damage that occurs must be repaired. If not, the damage will result in artificial constraints on maneuver training including loss of training acreage, creation of safety hazards, decreased tactical maneuverability, increased maintenance costs, loss of vegetation, loss of quality training terrain, destruction of natural camouflage, and controversy with the general public.

b. The key to preventing maneuver damage is knowing how to respond properly to different situations. As leaders, the decisions you make will affect the training area by promoting or preventing damage. Once the training land is damaged it is extremely hard and expensive to replace or repair. Training for combat on the modern battlefield often cannot be conducted without damage, but trainers are expected to consider the impact of events, modify plans to avoid damage that violates Army policy, and ensure the repair of unavoidable scenario-driven damage. Training plans will include locations of known sensitive areas and plans for maneuver-damage repair. Procedures to reduce maneuver damage include the following:

(1) Avoid making tactical turns such as missile avoidance or neutral steer turns, unless necessary. These types of turns will rip up all the vegetation and it will take the terrain several years to recover.

(2) Avoid digging or damaging wetlands or any wet areas. Avoid damage to trees.

(3) Drive on established roads during administrative time. Although it may take longer than moving cross-country, the expense incurred in repairing maneuver damage is very high. Units causing ruts must fill them in as soon as possible.

(4) Stay away from the edges of roads. Driving on the edges will cause the edges to break and crumble. This can cause the road to wash out from rain and result in erosion problems.

(5) Do not drive directly up steep hills.

(6) Use camouflage nets instead of live vegetation. The nets are designed to break up the visual lines of equipment and structures.

(7) Do required training with a concern for conservation and future use of range areas.

c. Units will report maneuver damage to range control. Range control will determine the cause of the maneuver damage. If the damage was caused as a result of unavoidable scenario-driven maneuvers, the units will not be assessed for maneuver-damage repair. However, if range control determines that the damage was unnecessary and negligent, the DPW, Environmental Resources Division will conduct a damage assessment and offending units may be charged for maneuver-damage repair. The DPW, Environmental Resources Division will provide technical guidance on cleaning up hazardous materials and the ITAM office will provide guidance on rehabilitation of damaged lands.

2-12. Information and assistance

a. The range-facility manager and ITAM staff will assist trainers at any stage of planning with advice on the possible impact of exercise scenarios. Trainers must use these resources early in their planning cycles to provide for protection of known sensitive areas and reduce possible maneuver damage to those areas within the training complex.

b. Activities that require environmental assistance and coordination include the following:

(1) Large exercises (battalion to brigade size) must have at a minimum, one environmental or ITAM staff person attached to each tactical operation center or battalion support area in the field. This resource is at no cost to the unit and will function solely as the environmental intelligence to the commander. The ITAM coordinator should be contacted as soon as possible in the planning process so that appropriate number of personnel will be available to the commander.

(2) Ground-disturbing activities, such as bulldozer work where soil and vegetation is displaced, disturbance of vegetation in wetlands, construction of new trails, and the opening of new borrow areas, etc., will be coordinated with the ITAM office before taking any action.

(3) Activities that will have an impact on waterways or result in discharge of material into waterways will be coordinated with the ITAM office and the range-facility manager before taking any action. These actions may require a Clean Water Act, Section 404 wetlands permit and could take up to 6 months to obtain.

(4) Units will coordinate with the ITAM office for the use of trees over 4 inches in diameter for construction or demolition purposes.

(Office symbol) (MARKS) (Date)

MEMORANDUM FOR Range Control

SUBJECT: Late Firing

1. Request ____(unit, battalion, etc.)____ be granted permission to fire ____(weapon, firing system)____ between 2200 and 0600. Training will be conducted at _____(range/training facility)_____.

2. The purpose is to accomplish _____.

3. The point of contact is _____.

Signature Block

Figure 2-1. Sample late fire request memorandum

(Office symbol) (MARKS) (Date)

MEMORANDUM FOR Public Affairs Office

SUBJECT: Special Activity Notice

1. Request special activity notice for civilian population of late firing of ___(range/training facility)____. The _____(unit/activity)_____will be conducting this exercise during the period of ____(date(s))____.

2. Special activity notice of the firing of:

   a. Artillery—Date: _____ Time: _____.

   b. Mortar—Date: _____ Time: _____.

   c. Demolition to exceed 50 pounds.

3. Date, time, and range area: _____.

4. Point of contact is _____.

Signature Block
Range Facility Manager

Figure 2-2. Request for special activity notice memorandum

Chapter 3
Scheduling

3-1. General

a. The assignment of training areas, ranges, and training facilities is conducted by range scheduling at each post range control.

b. An off-post land use request will be submitted and processed per USARAK Regulation 405-2.

c. Requests to use Knik and Spencer glaciers will be forwarded by memorandum to the USARAK Installation Range Office.

d. Requests for use of Black Rapids training site should be forwarded by memorandum to the Northern Warfare Training Center commandant.

3-2. Range and training facilities inventory

a. A brief description by post of range name and type is listed in appendix B. Weapons and courses of fire not described therein may fall in the category of live-fire, maneuver courses, or CALFEX for special, live-fire exercises. See chapter 8.

b. Training facilities are also listed in appendix B; occupation, use, and clearance information is in the local, range-control SOP. Training facilities inside training areas are scheduled separately from maneuver lands. Units conducting field exercises in training areas may not enter an unused facility or interfere with another unit training on the facilities.

c. Maneuver land is divided into numbered and lettered training areas as described on each post special 1:50,000 map.

3-3. The scheduling process

a. Range and training area requests are reviewed and processed by range scheduling at each post. Normal operating hours for range scheduling are 0800 to 1530, Monday through Friday. Trainers must avoid block scheduling in lieu of detailed planning. Shared use of training areas and ranges is the norm.

b. Request for ranges, training areas, and training facilities must be submitted by:

(1) USARAK Form 279 (Range or Training Area Request) or a memorandum to range control identifying—

(a) Range, training area, and/or training facility.

(b. Date and time of use.

(c) Number of personnel to be trained.

(d) Type of weapons.

(e) Type of ammunition.

(f) Number and type of vehicles.

(g) Point of contact and telephone/facsimile number.

(2) The Range Facility Management Support System is a range, training area, and training facility scheduling program, installed on unit computers by range control, that will allow requestors to remotely access range scheduling at any time and—

(a) Review the availability of a range, training area, or training facility.

(b) Submit an electronic request for a range, training area, or training facility.

(c) Receive and print reservation contracts.

(d) Send to and receive electronic messages from range scheduling.

c. Telephonic reservations can also be made but must be followed up by a USARAK Form 279, memorandum, or a Range Facility Management Support System entry within 7 workdays. Range scheduling will void all verbal reservations for which a hard copy request is not received, opening those ranges/training facilities for first-come-first-serve bookings.

d. Routine requests, with no conflicts, are processed within 2 workdays of receipt.

3-4. Scheduling priorities

Assignment of restricted areas, training areas, ranges, and training facilities will be completed by range control. Assignments will be based upon the following priorities:

a. Priority 1. Test and Evaluation Command directed test support to Cold Region Test Center. The USARAK commander will be the approval authority for test support occurring within 48 hours of a Cope Thunder launch and within 24 hours for other scheduled activities. In no case will testing occur unless there is at least 3 hours prior notification.

b. Priority 2. United States Air Force Cope Thunder exercises.

c. Priority 3. Joint training exercises of which USARAK is a participant.

d. Priority 4. Army Emergency Deployment and Readiness Exercise, United States Air Force Combat Employment Readiness Inspection, or Headquarters, North American Aerospace Defense Command exercises. If there is a conflict between Army and Air Force activities, the Army activities will have priority.

e. Priority 5. United States Army Operational Readiness Evaluations, United States Air Force Combat Employment Readiness Exercises, or Alaska Region exercises. If there is a conflict between Army and Air Force activities, the Army activities will have priority.

f. Priority 6. Reserve component training including Army and Air Force Reserve and National Guard.

g. Priority 7. Priorities of USARAK.

(1) United States Army Training and Doctrine Command schools.

(2) Army Training and Evaluation Program.

(3) Visiting continental United States units.

(4) Live-fire exercises.

(5) Battalion field training exercises.

h. Priority 8. Priorities of United States Air Force Alaska.

i. Priority 9. Priorities of other services.

Note: Cope Thunder exercises are defined as a major flying exercise, generally running for 10 flying days, but could last as many as 15 flying days, not to exceed a total of 60 days per year. A flying day will normally consist of two, 2-½-hour periods or one, 5-½-hour period per day.

3-5. Scheduling protocol

a. Use of areas in the range and training complexes will be scheduled a minimum 28 days before the activity as determined by priorities listed in paragraph 3-6. Within 27 days of a given date, units will be scheduled, regardless of service branch, on a first-come-first-served basis. Those units making last-minute requests will be asked to conduct their activities during times or within areas not being used by other units. They may share airspace, training areas, or impact areas with other units, if such a plan is acceptable to the units involved and has been coordinated with and approved by the appropriate range-controlling agency. A Priority 1 activity can exercise its priority up to 3 hours of a scheduled activity. The Cold Region Test Center is routinely scheduled concurrently with other users when test conditions are likely to occur. When testing during these conditions does occur, it is considered “scheduled” with the test taking priority over the other concurrently scheduled users. However, the USARAK commander will be advised of air missions in progress or other circumstances and will be the approval authority when Priority 1 is exercised within 48 hours of a Cope Thunder launch or within 24 hours of other scheduled activities. Priority 2 through 4 activities can exercise their priority up to 48 hours of a scheduled activity.

b. Training periods should be developed to occur within the range hours listed in the Flight Information Publication. All requests for extensions will be made by the Army to the controlling agency listed in Flight Information Publication. United States Air Force Alaska scheduling will be made through 354 Operations Support Squadron for R2202, R2205, and R2211 to the appropriate range control. The United States Air Force and other users will schedule with the appropriate range control. USARAK requests for extension will be made through the respective range control. All aerial DART missions flown west of the Delta River will require activation of R2202B and R2202C. No other aircraft or ground training will be conducted in R2202 west of the Delta River during DART missions.

(1) All air-to-ground activities will be scheduled according to the published airspace limitations that shall include the associated underlying land space; special modifications of air/ground space to facilitate maximum training/testing requirements shall be coordinated between the scheduling agencies as required.

(2) United States Air Force Alaska will request range and training area times and schedule areas per this regulation and current memorandums of understanding.

(3) The assignment of a range or training facility to a unit does not include the exclusive use of roads and trails within the area unless special requirements are justified and sole-use authority has been approved by range scheduling.

(4) The coordination areas within memorandums of agreement will not be used without the coordinated concurrence of the corresponding Army range control. Coordination procedures exist in the current operational memorandum of understanding for R2202, R2205, R2211, and coordination areas within the memorandums of agreement.

c. The USARAK commander or designated representative (colonel or above) will be the resolution authority for unresolved scheduling conflicts that cannot be resolved by applying the scheduling priorities between Department of Defense elements using Army-managed lands and related airspace.

3-6. Monthly range scheduling/Range Facility Management Support System conferences

a. A monthly, training resource, scheduling conference is conducted by range control at FRA and FWA, and as required at DTA. The date, time, place, priorities, and other particulars for each conference will be provided at the preceding month's meeting.

b. The purpose of the monthly range and training area coordination meeting is to enhance unit training by detecting and eliminating scheduling conflicts and ensuring all training needs are met. Attendees include, at a minimum, but are not limited to:

(1) Brigade training officer or designated representative.

(2) Battalion training officer or designated representative.

(3) Separate company training NCOs.

(4) Alaska Army National Guard representatives.

(5) United States Army representatives.

(6) Post range representatives.

(7) United States Air Force representatives.

(8) DPW, Environmental Department, Natural Resources Branch representative.

(9) ITAM program representatives.

c. Range complex users must attend the conference prepared to negotiate for training support resources. Unit representatives must be senior training managers with the authority to change requests to match available resources. Units that are not represented at the conference may only schedule for facilities on a first-come-first-served basis after the conclusion of the conference.

d. Each representative will present his/her unit's projected range and training area requirements for the next 120-day period. Each unit's requirements will be recorded on a calendar so that conflicts may be detected and resolved. The DPTSM will resolve training conflicts. The USARAK chief of staff will be the final approving authority. The brigade operations and training officer will resolve training conflicts for brigade units.

e. As a minimum, unit presentations will address the following:

(1) Range(s)/training area(s) are required.

(2) Dates that range(s)/training area(s) are required.

(3) Brief overview of training objectives.

(4) Participating units.

f. Special coordination measures that should be considered (e.g., road closures, use of riot control agent "CS", and airspace restrictions).

g. All unit requests for Army-controlled ranges and training areas outside of their home post's control should be submitted to the appropriate range control for the requested range/training area. All requests

for ranges and training areas outside a home post will contain a justification for the request and a scenario of the training exercise.

h. The calendar schedules are planning documents and do not replace the formal request for ranges and training areas.

i. Off-post, land-use requests are governed by USARAK Regulation 405-2.

j. Requests to use Knik and Spencer glaciers will be forwarded by memorandum to the DPTSM. Requests for use of Black Rapids Training Site should be requested by memorandum to the Northern Warfare Training Center commandant.

k. Assignment of training areas, ranges, and training facilities will be conducted by range control. Assignments will be based upon the scheduling priorities.

l. A portion of the conference will be devoted to Range Facility Management Support System information and updates.

3-7. Multiple use of training areas

All training areas will accommodate more than one unit and can be scheduled for multiple units unless sole use is approved. Joint use of training areas is encouraged and must be coordinated between the using organizations. When coordination is complete, the remarks section of the USARAK Form 279 or Range Facility Management Support System reservation request will reflect the date, the time, and the person with whom the coordination was made.

3-8. Cancellations

A memorandum of cancellation (see example at fig 3-2) will be submitted by non-Range Facility Management Support System users as soon as a unit decides to cancel. Cancellations and rescheduling are done through range scheduling only; units may not conduct independent internal reallocation of ranges, training areas, or special-use airspace.

3-9. Usage confirmation

Units must contact range control at least 1 to 3 days before range, training areas, or training facility occupation to confirm their intent to use the scheduled facility and to ensure that the support requirements for the facility are available. Units that fail to confirm usage and sign for the range in the designated time frame will be denied use of the range.

(Office symbol) (MARKS) (Date)

MEMORANDUM FOR Range Control Scheduler

SUBJECT: Training Resource Cancellation

1. Request cancellation of the following scheduled training resource:

   a. Facility/resource: _____.

   b. Originally dates scheduled for:_____.

   c. Dates to be canceled: _____

   d. USARAK Form 279 control number: _____

2. Reason for cancellation: _____

Signature Block

Figure 3-1. Sample of memorandum of cancellation

3-10. Recreational activities

a. Portions of the range/training complex may be used for recreational purposes by military personnel and nonmilitary permit holders. Every effort will be made to ensure multiple use of military lands; however, safety is the main consideration. Military training has priority.

b. Recreational swimming in any stream, pond, or lake is prohibited year-round.

c. Impact areas are off limits for all activities except those associated with military training.

3-11. Hunting and fishing

a. Hunting and fishing activities are administered by the DPW, Environmental Resources Division and the Alaska Department of Fish and Game. These programs are described and regulated through Alaska State hunting and fishing regulations and USARAK Regulation 190-13. Training areas will be blocked as necessary to ensure proper game management during hunting and trapping seasons per instruction from the DPW, Natural Resource Branch managers and Alaska Department of Fish and Game.

b. Seasons and license requirements are published by the Alaska Department of Fish and Game. The military police desk is the single point of contact for daily information on available hunting, fishing, and recreational areas on post and for sportsman check in and check out.

3-12. Privately owned vehicle access

Privately owned vehicle access to recreational areas and facilities by the most direct route is authorized, but no detours into training areas or onto ranges are permitted.

3-13. Firewood

a. Contact the DPW, Environmental Resources Division for information on personal-use, forest-product permits.

b. Once issued, the firewood permit must be in the possession of the cutter or the group leader during firewood collection.

c. Firewood may be collected only in the permit-designated areas. A permit may be obtained through DPW.

d. Permit holders must check in and check out with the military police.

3-14. Training conflicts

Trainers encountering recreational users during scheduled training will first ensure their military activities are in the authorized location. They will then inform the nontraining party of the military activities ongoing and the associated hazards. At the same time, a report will be made to range operations of the conflict. Permit holders are usually neighbors and understand the need to avoid training sites. If the problem cannot be resolved, range operations will dispatch an inspector to the area to resolve the conflict and when necessary request assistance from the military police desk sergeant.

3-15. Implemented policies that affect training

Appendix D provides historical information of conditions and situations affecting training that were identified by past commanders as training distracters. Appendix D addresses the situations and/or conditions with the applied solutions and thereby inform commanders/trainers of some unique requirements that must be followed to conduct training or to preserve training assets in Alaska.

Chapter 4
Ammunition

4-1. General

a. AR 385-63, this regulation, and local directives are used by range inspectors as guides in checking unit control of ammunition on ranges and firing points. Field ammunition supply points will be scheduled with range control and established per AR 190-11 and USARAK Regulation 190-1. The OIC must ensure that communication is established and maintained with range control.

b. Smoking on ranges is prohibited except on roads, in gravel pits, or in areas cleared of flammable materials. OIC/RSO must designate a smoking area.

c. Ammunition will remain in sealed containers until the shortest time possible before firing. Unpacked ammunition must be protected from the elements.

d. Exercises using live ammunition and blanks will not normally be conducted concurrently. If it is necessary to do so, the live-fire portion will be conducted as the final phase of the exercise. The range OIC is responsible for taking positive control measures to ensure there is no mixing of blank and live ammunition.

e. Ammunition losses must be reported immediately to range control, the unit chain of command, and the military police desk.

f. Ammunition .50 caliber and below found on ranges or training areas will be accepted by the ammunition supply point under the no-questions-asked policy. Ammunition above .50 caliber must not be touched. These items will be marked, guarded, and reported to range operations immediately. Range operations will notify the 716th Explosive Ordnance Detachment for ordnance disposal.

g. Military ammunition and weapons may not be transported in privately owned vehicles.

h. The use of nonstandard items or explosives (including ammunition having explosive components) is prohibited in troop training except for those specifically approved by the Directorate of Logistics, quality assurance specialist for ammunition surveillance.

i. Ammunition, including blanks, will never be abandoned, destroyed, concealed, or fired indiscriminately to avoid ammunition supply point turn in.

j. All residue will be removed from ranges or training sites.

4-2. Seasonal, fire-hazard, ammunition restrictions

a. General. Seasonal fire hazards caused by dry weather may restrict use of tracer and other potentially incendiary ammunition. Units using ranges, training facilities, and training areas are responsible for knowing the daily fire index and adhering to the restrictions in this section. This information is available from the applicable range control office. Regardless of the season, trainers must ensure that flame-producing pyrotechnics are not used on or near fuels that may start a forest or range fire. Throwing away cigarettes, matches, or other burning materials is prohibited.

b. Fire index. The fire index is based on the Canadian Forest Fire Danger Rating System. The fire chief on Army posts has responsibility for the computation and dissemination of the fire index on a daily basis during fire season. It is disseminated to each post range office daily, is applicable to that particular area, and is valid for 24 hours. The Bureau of Land Management provides the fire chief with the information used for computation of the fire index. This information is provided by a series of remote sensors located in each of the respective range areas and provides timely, accurate information regarding the index

conditions. Range controls are responsible for obtaining the daily index and disseminating that information to units using the range. The specific methodology for computation of the fire index and other technical aspects of this program will be coordinated annually in a memorandum of agreement between DPTSM, the Bureau of Land Management, the fire chief, and the United States Air Force. Proponency for this memorandum of agreement is the DPTSM with an annual suspense of 1 April. The four fire index categories are low, moderate, high, and extreme.

c. Restrictions. Questions regarding these restrictions, including restrictions on any specific type of ammunition should be directed to the specific range control office for that range. These restrictions apply to both Army and Air Force units.

(1) Low. No restrictions.

(2) Moderate.

(a) Ball and blank ammunition may be used without restrictions.

(b) Pyrotechnics, including smoke, trip flares, and tracers are prohibited in training areas, unless the pyrotechnics are used in a container that completely contains all burning elements of the device. An example of this would be using a cut off drum to contain a smoke grenade. Any device used will be observed until the pyrotechnic is completely burned to ensure no fire is ignited outside of the container.

(c) No restrictions in Stuart Creek impact area.

(d) No restrictions in the Delta Creek impact area.

(e) Air Force restrictions. 1) Flares or foreign equivalent will be deployed above 1,500 feet above ground level and 2) inert ordnance, cold spot BDU-33s, or foreign equivalent will be used on the Oklahoma, Washington, and Mississippi impact areas at DTA and Blair Lakes.

(3) High.

(a) Ball and blank ammunition may be used without restriction.

(b) Nonaerial pyrotechnics permitted on the small arms complex only. All other use of pyrotechnics is restricted.

(c) No pyrotechnic ammunition may be used Stuart Creek and Delta impact areas.

(d) Ground units will carry required fire-fighting equipment.

(e) Air Force restrictions. 1) Flares or foreign equivalent will be deployed above 5000 feet above ground level and 2) inert ordnance, cold spot BDU-33s, or foreign equivalent will be used on the Oklahoma, Washington, and Mississippi impact areas at DTA, Stuart Creek impact area at YTA, and Blair Lakes.

(4) Extreme.

(a) Ball and blank ammunition used is restricted to the small arms complex.

(b) Use of any pyrotechnics is prohibited.

(c) No pyrotechnic ammunition may be used Stuart Creek and Delta impact areas.

(d) Ground units will carry required fire-fighting equipment.

(e) Air Force restrictions. 1) Flares or foreign equivalent will be deployed above 5,000 feet above ground level and 2) inert ordnance, cold spot BDU-33s in all impact areas.

d. Reporting. Anyone observing a fire in any range area will report it immediately to range control by one of the following methods:

(1) Range control frequency (FM 38.30).

(2) Post fire department—dial 911 at all posts.

(3) Range control has responsibility for ensuring the fire department and Bureau of Land Management are notified of the fire. Normally, the fire and emergency services will be notified first, then they will, in turn, notify the Bureau of Land Management. However, some situations may warrant simultaneous notification.

e. Preparedness.

(1) Training. The fire chief, in coordination with Bureau of Land Management, is the proponent for providing introductory training on safety, proper fire-fighting techniques, and fire behavior. This training is only familiarization and does not fully qualify soldiers according to Bureau of Land Management and national fire safety standards (normally a 40-hour course). Units are responsible for scheduling and maintaining current proficiency on this training.

(2) Equipment. During critical fire periods (high and extreme), all units using ranges or training areas will carry fire-fighting materials. Proper fire-fighting tools include, but are not limited to Pulaskis, beaters, portable water extinguishers, and a water supply such as full water trailers or drums. Units will be prepared to assist in suppressing small range fires (up to 100 square feet) that might occur in the training areas.

(3) Exceptions. The requirements for training and having equipment on hand is intended for ground based units that are at the greatest risk of being involved in a fire situation.

f. Fire-fighting actions. Range fires may occur at any time of the year on any range. Fires are most likely to occur on ranges where tracers or HE ammunition are used.

(1) On ranges where dud-producing ammunition are used, fires will be reported to range operations (see para d above). Training activities will be stopped.

(2) On all other ranges, the range OIC will report the fire to range operations. For small fires (see para e(2) above), with range control's authorization, dispatch troops to fight the fire.

(3) The range OIC will exercise judgment to ensure the fire does not endanger unit personnel. The range OIC will ensure control of weapons, ammunition, and government property is not lost and evacuation of these items is possible if the fire becomes a hazard.

(4) Once a representative from the fire department or Bureau of Land Management arrives on the scene, they assume command of the situation. The unit will take direction from the on-site fire commander.

g. Waivers. Waivers to this portion of the regulation represent a direct liability to the command in terms of the cost for fighting any fire that results from a waived condition. Due the extremely high cost in terms of operations/training dollars, all requests for waiver will be carefully evaluated before approval is granted. Only those training activities that significantly impact the overall readiness of the command will be considered for waiver. Waivers to the above restrictions may be requested per the following:

(1) Waiver authority. Authority for waivers of fire-index restrictions rests with the commanding general of USARAK and has been delegated to the DPTSM. The post range manager will provide a staff recommendation to the DPTSM for consideration in approving any waivers.

(2) Waiver requests.

(a) Request for waiver must be submitted by memorandum. The request must state the specific area of operations, restrictions to be waived, and the required risk assessment for the operation.

(b) Requests for waiver will be routed through the first, battalion-level commander to the respective range office to be coordinated with the fire chief for staff action and referral to the DPTSM for final disposition.

(c) Request for waivers will not be considered any earlier than 2 working days before the scheduled event. Due to rapid changes in the fire index, this will ensure the action is based on the most current conditions and most likely projected conditions.

(3) Waiver responsibilities.

(a) Range control has staff responsibility for timely processing of waivers. Requests for waivers will be actioned within 1 workday of submission.

(b) Range control will actively monitor all units operating under waived conditions.

(c) Range control will notify the fire chief and Bureau of Land Management (as appropriate) of units that are operating under waived conditions.

(d) Units will ensure they have the proper, fire-fighting equipment, as stated above, on site throughout training during the waiver. Failure to have the equipment on hand will cause immediate revocation of the waiver.

(4) Waiver liability. Units requesting waivers are primarily liable for costs associated with any fire that results under a waiver. USARAK is ultimately responsible for all costs associated with fighting fires resulting from waived conditions.

4-3. Small arms and grenades

a. Live-fire maneuver courses requiring small arms fire over the heads of troops must use ammunition cleared for overhead fire. It is identified by the national stock number in appropriate supply catalogs or Department of Defense, consolidated, ammunition catalogs.

b. To meet record-keeping requirements of AR 385-63, range OICs conducting training with dud-producing munitions must report the locations of all duds to range operations at the end of each day, using USARAK Form 8 (Range Firing Record). Negative reports are required.

c. Every precaution will be taken when using grenades to prevent injury from flying fragments. The requirements in AR 385-63 and FM 3-23.30 will be complied with. Requirements for personal protective clothing and equipment will be strictly enforced (hearing protection, flak jackets, helmets, etc.). HE grenades that fail to function (dud) will not be approached except by explosive-ordnance-disposal personnel. A dud will result in an immediate cease-fire and notification to range control. Resumption of fire will not occur until explosive ordnance disposal has destroyed the dud and range control has given permission to resume fire. Unauthorized personnel will not approach, move, touch, or handle dud grenades. Individuals being transported by vehicle or aircraft will not carry fragmentation, offensive, or white-phosphorus grenades attached to web equipment.

d. During summer, units using HE hand grenades on live-fire, maneuver courses must ensure that the target area is free of holes, ditches, or high grass that may conceal a dud. For winter operation, the target area will be cleared of snow down to the soil surface. Such hand-grenade use must always be coordinated with range operations as a special firing course per chapter 8.

4-4. Artillery and mortars

Range OICs and RSOs must be familiar with and have on-hand appropriate weapon and ammunition publications governing handling and firing of indirect-fire ordnance.

a. The following procedures apply when any part of Area D, as defined in AR 385-63, is occupied. United States artillery ammunition must be cleared for overhead fire. Foreign forces commanders must certify non-United States artillery ammunition as cleared for overhead fire.

b. Mortars will never be fired over any personnel.

c. Propellant-charge increments must be kept dry. If the range OIC or RSO has any doubt as to whether moisture has affected the propellants, the charge or round must not be fired. Increments may be cut only to support the mission being fired. Excess increments must be kept in a metal or wooden, covered container at least 25 meters to the rear of each piece, and must be burned daily or before leaving each firing position, whichever occurs first. Excess propellant will be burned in burn pans per chapter 7.

(1) White-phosphorous rounds will not be fired on ranges or training areas.

(2) Improved Conventional Munitions will not be fired.

4-5. Pyrotechnics

a. Use of pyrotechnics may be restricted during dry weather, per paragraph 4-2 above.

b. Dud or malfunctioning pyrotechnics must not be disturbed. The item will be marked and reported to range operations for explosive-ordnance-disposal notification.

c. Unit commanders must be aware of the quantities of pyrotechnics issued to ensure these dangerous items do not leave post. Pyrotechnic devices emplaced but not used must be removed from training areas and returned to the ammunition supply point. Atomic simulators will be used per TM 9-1370-207-10. Commercial fireworks will not be used in training.

d. Aerial flares will not be set off within 1,000 meters of local airfields or when any aircraft is overhead.

e. Small-arms, blank ammunition will not be fired at personnel at distances less than 30 meters. The use of blank ammunition in hand-to-hand combat training is prohibited.

4-6. Chemical training munitions

a. Lethal or incapacitating chemical agents will not be used in training. Persistent chemical agents are prohibited; use will not be requested.

b. A special activity overlay (1:50,000) will be submitted to range control for approval when riot control agent (CS) is used in training. A chemical corps officer, NCO, or a graduate of an installation/command NBC school will supervise the use of riot-control agents. Only CS in capsule form may be used in a CS chamber. See appendix E for a sample overlay.

c. Do not use CS—

(1) Within 500 meters of an improved road.

(2) Within 500 meters of any railroad.

(3) Within 200 meters of open water.

(4) Within 1,200 meters of the post boundaries, public highways, or recreation areas (Otter Lake, golf course, etc.).

(5) When civilians are seen in the area.

(6) During field, mess operations (except meals, ready-to-eat).

(7) In quantities greater than three CS grenades in 1 hour at the same location. If more than three CS grenades are to be used in 1 hour, the sites must be at least 1,000 meters apart.

(8) Within 10 meters of personnel, vehicles, and tents.

(9) When the fire weather index is moderate or higher.

(10) When the vent factor equals less than 600 square feet per second.

d. Before deploying CS—

(1) Notify range control 10 minutes before deployment.

(2) Ensure that the vent factor equals or exceeds 600 square feet per second.

(3) Use a smoke grenade to determine the drift and dispersion area.

(4) Ensure the site has been reviewed and approved by range control. A copy of the approved overlay must be on site.

4-7. Smoke operations

a. Smoke operations will be conducted per FM 3-50. Computations will consider temperature gradients and the direction and speed of the wind. Test grenades will be used before smoke pots are employed. All smoke must completely dissipate before leaving the reservation boundary. Under marginal conditions, an NBC-qualified officer should evaluate all factors and recommend the type and uses of smoke. The range OIC has the responsibility to decrease the amount of smoke to ensure that the smoke dissipates before leaving the reservation. A special-activity overlay (1:50,000) will be submitted to range control no less than 12 working days ahead for approval of all smoke operations. Failure to meet this timeline will result in a disapproval of smoke-generation training.

b. The Alaska Department of Environmental Conservation issues a permit for units in USARAK to conduct smoke-generation training at FRA, FWA, and Fort Greely. The permit expires annually and must be resubmitted for approval. The permit authorizes USARAK units to use up to 10,600 gallons of fog oil and 5,000 gallons of diesel fuel-arctic for fogging operations on military lands.

c. All request(s) for smoke generation must be reviewed and commented on by the 172d Infantry Brigade, Chemical Platoon before submission to range control.

(1) Units are required to record fog oil and diesel fuel-arctic rates used each day that smoke is produced, its rate of movement of the fogger, global-positioning-system data for locations of foggers, temperature, and wind speed and direction. Units are required to provide this information in memorandum format to the respective range manager where the training takes place.

(2) Smoke generation is not authorized within 300 meters of a water body (i.e. lakes, rivers, or streams).

(3) Smoke generation is not authorized within 1,000 meters of the post border, urban area, and cantonment area.

(4) Smoke generation is not authorized within 500 meters of major roads (i.e. Richardson and Glenn highways).

(5) Smoke generation is not authorized within 100 meters of the Alaska Railroad tracks.

(6) Spill-prevention measures must be taken to prevent spills while using and refueling smoke generators. Spill-response equipment to contain and cleanup any spills that occur must be available in the field. All spills are to be reported to the respective range control manager immediately.

(7) Use of the smoke generators must be annotated on all range requests that include smoke generation. Probable smoke-generation locations will be identified to at least training area level; i.e., smoke generation will occur in YTA-4. Range managers are required to capture utilization data in the Range Facility Management Support System.

(8) A scientific-monitoring team will be conducting monitoring activities concurrent with training activities. This team will be coordinated by range control.

(9) Units must give no less than 12 working days prior notice when requesting to conduct smoke operations. Failure to do so will result in a disapproval of smoke-generation training.

(10) Units must consult the fog-oil, smoke maps when requesting to train. These maps will show the environmental/geographical restrictions and are available at range control.

d. **Caution.** To prevent burns when Hexachloroethane- (HC-) smoke pots are fired manually, the firerer must keep his/her face averted and, after igniting the smoke pot, move quickly to a distance of 30 meters. HC-smoke pots will not be fired inside buildings, tents, or other enclosed areas because of fire and health hazards from the fumes. The addition of water to the HC-smoke mix may cause it to burn erratically, explode, or produce spontaneous combustion; therefore, HC-smoke pots must be kept dry before use. Prolonged exposure to HC smoke may cause lung and eye irritation. Personnel exposed to any concentration of HC smoke will wear field, protective masks and reduce skin exposure by rolling down shirtsleeves. Laundering of clothing and showering following smoke training will reduce the risk of skin irritation.

e. Mortar and field artillery smoke projectiles will be fired per chapter 7 of this regulation, AR 385-63, current range control safety data, and appropriate weapon and ammunition publications.

f. All personnel must carry a protective mask during exercises involving smoke.

(1) Personnel will mask before exposure to any concentration of smoke produced by M8, white-smoke grenades, smoke pots, or metallic-powder obscurants.

(2) Personnel will mask when passing through or operating in dense smoke causing visibility to be less than 50 meters, such as smoke blankets and curtains.

(3) Personnel will mask when operating in or passing through a smoke haze with visibility greater than 50 meters and duration of exposure exceeding 4 hours.

(4) Personnel will mask anytime exposure to smoke produces breathing difficulty, eye irritation, or discomfort. Such effects in one individual will serve as a signal for all similarly exposed personnel to mask.

(5) Personnel will mask when using smoke during urban training featuring operations in enclosed spaces. WARNING: THE PROTECTIVE MASK IS **NOT** EFFECTIVE IN OXYGEN DEFICIENT ATMOSPHERES. CARE MUST BE TAKEN NOT TO ENTER CONFINED SPACES WHERE OXYGEN MAY HAVE BEEN DISPLACED. SMOKE GRENADES MAY NOT BE USED OR THROWN INSIDE BUILDINGS OR CONFINED SPACES.

(6) Smoke-generator personnel will mask when it is impossible to stay upwind of the smoke.

4-8. Misfires, hang fires, and malfunctions

a. A misfire or hang fire occurs when the propellant chain does not function and the round does not leave the tube. These are handled by the unit per weapons publications. Explosive-ordnance-disposal assistance will be requested through range control for misfires or hang fires only if the unit cannot resolve the problem.

b. Malfunctions include early discharge, premature detonation, or short rounds. The procedures are:

(1) Check fire the range. Equipment, ammunition, residue, and debris will not be disturbed except to treat casualties, if necessary.

(2) Inform range operations of the malfunction. MEDEVAC will be processed immediately, if needed. Otherwise an incident description will be provided. Range operations will inform the command operations center/field officer of the day, the ammunition supply point, the 716th Explosive Ordnance Detachment, the Installation Safety Office, and others as required.

(3) The ammunition supply point will notify the Directorate of Logistics, quality assurance specialist for ammunition surveillance, who will investigate as needed and clear the unit to move or fire the weapon or other ammunition.

(4) A member of the investigating team will notify range control when the unit can resume firing.

Chapter 5
Impact Areas

5-1. General

The impact area is the ground and associated airspace within the training complex used to contain fired or launched ammunition and explosives and the resulting fragments, debris, and components from various weapon systems. A weapon-system, impact area is the area within the surface danger zone used to contain fired or launched ammunition and explosives and the resulting fragments, debris, and components. Indirect-fire, weapon-system, impact areas include probable error for range and deflection. Direct-fire, weapon-system, impact areas encompass the total surface danger zone from the firing point or position downrange to distance X.

a. A temporary impact area is an impact area within the training complex used for a limited period of time to contain fired or launched ammunition and explosives and the resulting fragments, debris, and components. Temporary impact areas are normally used for nondud-producing ammunition or explosives and must be able to be cleared and returned to other training support following firing termination. Requests to create temporary impact areas for small-arms firing must be reviewed and approved, in writing, by the responsible range control.

b. A dedicated impact area is an impact area that is permanently designated within the training complex and used indefinitely to contain fired or launched ammunition and explosives and the resulting fragments, debris, and components. Dedicated impact areas are normally used for nonsensitive ammunition and explosives. However, any impact area containing fuzed HE or white-phosphorous duds represents a high risk to personnel and access must be limited and strictly controlled.

c. A high-hazard impact area is an impact area that is permanently designated within the training complex and used to contain sensitive, HE ammunition and explosives and the resulting fragments, debris, and components. High-hazard impact areas are normally established as part of dedicated impact areas where access is limited and strictly controlled due to the extreme hazard of dud ordnance such as Improved Conventional Munitions, light antitank weapons (LAWs), 40-millimeter (mm), and other highly sensitive ammunition and explosives.

d. Impact-area requirements vary with the training requirement and the surface danger zones. New, contaminated, impact areas will not be created unless an exception to policy is approved per AR 200-1, AR 385-63, AR 210-20, AR 210-21, and the Bureau of Land Management agreements for YTA and DTA. The creation of new and/or the expansion of existing HE-dud-contaminated, impact areas must be approved by the Assistant Secretary of the Army for Installations, Logistics, and Environment. Existing dedicated, impact areas will be used by the maximum extent feasible when firing dud-producing munitions.

5-2. Access to impact areas

Access to impact areas will be restricted to mission-essential activities and coordinated with the controlling range office before entry. Appropriate clearing of unexploded ordnance will be done before entry except under emergency situations (example, aircraft mishaps or life safety). Entry into Army impact areas by other than Army-authorized personnel must be coordinated in advance with the installation range officer. The requesting agency assumes all responsibility and liability of personnel and costs associated with entry into the impact zone.

a. Personnel who must enter an impact area will be thoroughly briefed on the hazards of unexploded ordnance by range control and/or explosive ordnance disposal.

b. Range control will strictly control access into impact areas. Those portions of impact areas authorized for training or other authorized purposes (e.g., environmental) will be surface cleared of dud

ammunition before access is permitted. Cleared areas that become contaminated during live-fire exercises/training will be cleared when the exercise/training is completed.

c. Digging entrenchments, foxholes, slit trenches, constructing roads, or conducting other activities that disturb earth within an impact area is not permitted. Open fires will not be permitted.

d. Impact areas are marked with warning signs and/or barriers. Passing any of these hazard warnings without approval is prohibited. Unauthorized entry (trespassing), handling, or removing unexploded ordnance/munitions are punishable offenses.

e. Access to ranges and other areas containing or suspected of containing improved-capabilities missiles or submunitions is prohibited unless permitted under a DA waiver. In addition, range operations, in coordination with Installation Safety and explosive ordnance disposal representatives, will determine and monitor implementation of safety controls required for personnel access.

5-3. Duds

a. All dud ordnance is extremely hazardous and **WILL NOT BE DISTURBED**. Any dud or ammunition item higher than .50 caliber found along the boundary of or outside an impact area will be reported to range operations immediately for evaluation by the 716th Explosive Ordnance Detachment. Ammunition .50 caliber and lower found on post will be turned into the ammunition supply point. Hand-grenade duds will be reported to range operations immediately for destruction by the 716th Explosive Ordnance Detachment. Duds occurring on the 40mm/Antitank 4 (AT4) Range at FRA, and 40mm/AT4 ranges at FWA, and all indirect firing points will be reported by number and location at the end of each firing day at all posts.

b. The range OIC or RSO of a range that is using HE ammunitions will submit a verbal and written dud report after each day's firing of dud-producing munitions to range control. Negative reports are required.

(1) A verbal report will be rendered during the passing of range closure information.

(2) A USARAK Form 8 will be prepared in triplicate for submission to range control.

(3) Both reports will include the—

(a) Name or number of the range or firing point.

(b) Number and type of dud munitions.

(c) Exact location (grid coordinates) within 10 meters of each dud.

(d) Name, rank, and unit of the range OIC.

c. If an explosive ordnance disposal team can be dispatched when the verbal report is given to range control, the range OIC/RSO will be instructed to remain on the range, monitor the range control frequency (FM 38.30), and follow the instructions provided by explosive ordnance disposal team members.

d. The completed USARAK Form 8 will be given to the senior explosive ordnance disposal team member, who will note and sign that the duds were destroyed and the range is in a clear status. The USARAK Form 8 will be returned to range control.

e. If an explosive ordnance disposal team is not available, the range OIC/RSO will be instructed to close the range and return all materials, including the completed USARAK Form 8, to range control. This does not apply to dud hand grenades. The using unit must provide a guard detail to ensure personnel do not enter the danger area until explosive ordnance disposal has cleared and released the area/range.

f. Range control will contact the 716th Explosive Ordnance Detachment and schedule a time period for range clearance. The 716th Explosive Ordnance Detachment will follow the safety requirements for opening and closing ranges.

g. If the number of duds encountered during firing exceeds the reportable dud rates as prescribed in AR 75-1, appendix B, a report will be submitted to the Directorate of Logistics, quality assurance specialist for ammunition surveillance.

h. Commanders and range OICs will ensure all personnel are aware of their responsibility in the care, marking, and reporting of duds. UNDER NO CIRCUMSTANCES WILL A DUD BE HANDLED, MOVED, OR TRANSPORTED BY OTHER THAN AUTHORIZED PERSONNEL.

5-4. Impact requirements

a. All firing on standard ranges and firing points must be conducted to cause bullets or projectiles to impact in the designated impact area. Impacts outside an authorized area will be reported to range operations immediately.

b. Range OICs of special firing courses involving direct, indirect, aerial weapons, or laser devices must know and identify to their personnel the azimuth or deflection and elevation limits established by approved overlays that will keep weapon, ammunition, or device effects within the designated impact area.

5-5. Visual clearance barriers and guards

a. All established ranges and training areas require visual clearance before firing and positioning barriers and/or road guards. Clearance will be by airborne reconnaissance or by ground reconnaissance if weather or aircraft availability prevent flying.

b. Some established ranges and special firing courses have barrier and guard requirements to keep nonparticipating personnel out of hazard zones. Placement of these barriers and guards are the responsibility of the using unit and will be checked by range inspectors.

c. Barriers may be permanently positioned gates, posted signs, or temporary barricades. Temporary barricades receipted from range control will be returned upon training completion.

d. Hazard-area guards placed by a unit must have radio or telephone communication with the range or exercise command post. Roving patrols must have radio contact with the command post.

5-6. Impact area trespass

Anyone observing personnel or vehicles in an impact area will inform range operations (FM 38.30) immediately. Range control will investigate and request military police assistance at the site.

5-7. Explosive ordnance disposal assistance

Units planning target placement or maneuver in a dudded impact area will be informed during scheduling if an 716th Explosive Ordnance Detachment-assisted surface sweep and dud clearance is required. If so, the following must be included in unit plans:

a. Due to priority commitments, explosive-ordnance-disposal support may not be available. Direct coordination between units and the 716th Explosive Ordnance Detachment is encouraged as early as possible. The 716th Explosive Ordnance Detachment requires range-control verification that terrain is scheduled for the event. Requests are by memorandum through range control to the 716th Explosive Ordnance Detachment, at least 30 days before the event.

b. The unit must provide a range-sweep detail, composed of and equipped as follows:

(1) Range OIC (SFC and up), RSO (SSG and up), safety NCOs, staking party (size determined by the 716th Explosive Ordnance Detachment, based on area to be cleared) and one MOS 91B-/91C-qualified medic.

(2) Dedicated MEDEVAC vehicle with a litter and driver, vehicles for explosives transportation, marking materials, and scrap (determined in coordination with the 716th Explosive Ordnance Detachment), and reliable radio communications with range operations.

(3) Dud-marking stakes and fluorescent tape obtained from range operations (quantities determined by the 716th Explosive Ordnance Detachment).

(4) During operations in a dudded area, all personnel must wear helmets, body armor (flak vest), eye protection, and work gloves.

5-8. Annual impact area clearance and retargeting

The impact areas may be closed periodically for retargeting and dud clearance.

a. Fort Richardson, Alaska. The Eagle River impact area is closed upon request.

b. Fort Wainwright, Alaska. The R2205 impact area is closed upon request.

c. Donnelly Training Area. All ranges, training areas, impact areas, and R2202 A and B are closed from 1 through 25 September.

5-9. Firing limitations

a. There will be no firing across or into—

(1) Federal or Alaska State highways.

(2) Railroad right-of-ways (except artillery).

(3) Explosive ordnance disposal areas (except artillery).

(4) Reservation boundaries.

(5) Any type of occupied building or structure.

(6) Live fire will not be conducted across or be caused to impact on Johnson, Quarry, Skyline, or Transmitter roads (FWA) unless appropriate road guards are posted, the activity has been coordinated with the Air Force (contractors), and proper public notification is done through the public affairs office. All plans must be approved by range control before execution.

(7) No live fire will be permitted to impact on the Chena River Flood Control Levee (FWA).

b. White phosphorous will not be fired on ranges or training areas.

c. Firing over or into navigable water is prohibited.

d. During all live firing, the impact area will be kept under constant, visual observation.

e. Overhead and flanking fire will be conducted in strict adherence with AR 385-63.

f. The unit range OIC or the designated representative will conduct a visual reconnaissance of the entire impact area before conducting live-mortar or artillery fire.

g. The firing of unfuzed artillery is prohibited.

h. Because the snow cushion causes a disproportionate number of duds, 40mm HE will not be fired into snow. Plan to fire 40mm HE from summer through September. Do not fire 40mm, HE grenades into snow. You may fire 40mm training practice (TP) rounds into the snow.

i. The firing of AT4 HE into 4 or more inches of snow is prohibited. AT4 TP ammunition may be fired into snow. AT4 will not be fired from the interior of buildings.

j. The firing of ammunition below temperature restrictions as imposed by TM 43-0001-28 and other pertinent TMs is prohibited.

k. Armor-piercing rounds will not be fired on electronic ranges, in the Shoot House, the Grenade House, or on the Military Operations in Urban Terrain (MOUT) Assault Range.

l. The Eagle River Impact Area at FRA must have an ice cover of 6 or more inches before HE artillery or mortar rounds can be fired into it. The area contains particles of white phosphorous, which are brought to the surface when rounds detonate in the soft soils. Migrating birds eat these particles, killing themselves and predators that feed on them.

m. Visibility requirements for controlled firing areas during winter cannot be met at times and will require live-fire training to be canceled and rescheduled. This situation exists at FRA and FWA due to very cold temperatures, which produce ice fog that temporarily closes the controlled firing areas. Visibility is discussed further in paragraph 6-7. This problem can be overcome in at least two ways. Mandatory qualifications can be accomplished if scheduled from May to September. Some fog is likely in August and September. Units can also schedule alternate (weather) days when scheduling weapon qualification or live-fire exercises in the controlled firing areas.

n. Firing the MK-19 HE munitions into 4 or more inches of snow is prohibited.

o. Firing across the Alaska Pipeline is prohibited.

p. Throwing HE grenades into snow-covered or vegetated areas is prohibited (see para 4-3d).

Chapter 6
Direct-Fire Ranges

6-1. General

a. Direct-fire ranges are scheduled per chapter 3. No range may be used unless it has been scheduled and permission to fire has been granted by range operations.

b. Operation or use of a range for purposes not specifically authorized by this regulation is prohibited without coordination with range control. Construction on and special use of ranges must be approved by the post range facility manager.

c. Unscheduled ranges are off limits. Range operations will coordinate special entry for personnel on reconnaissance or from DPW, the USARAK Provost Marshal, the 716th Explosive Ordnance Detachment, or other agencies.

d. Active ranges are off limits to personnel not connected with the training in progress. Range OICs and RSOs will maintain close control of their ranges and will ensure personnel with no official business are escorted out. Active ranges and hazard areas are announced in the weekly bulletin.

e. Troops may not go beyond the firing line on any ranges where dud-producing munitions are fired. Exceptions must be authorized by range operations and will require escort by personnel from the 716th Explosive Ordnance Detachment or range control, unless the surface area has been visually cleared by explosive ordnance disposal.

f. Range OICs and RSOs must ensure firing is kept within range limits as set by boundary markers or approved overlays. Range limits are marked with red-and-white, barber poles, vertical, reflective panels, or triangular, red-and-white panels.

g. Aircraft frequently overfly the impact areas regardless of range status. The RSO will appoint an aircraft spotter to watch for approaching aircraft and call a check fire until aircraft has departed.

6-2. Warning signals and signs

a. Before firing, scarlet streamers will be raised on all ranges during daylight hours. During periods of darkness or reduced visibility, red-blinking lights will be posted and limit markers illuminated. No firing will begin until these conditions are met.

b. Warning signs are posted on impact-area boundaries. Entry past a warning sign without range control permission is prohibited. Impact areas are extremely hazardous and OFF LIMITS. Exceptions are approved on a case-by-case basis (see chap 5).

6-3. Targets

See appendix F for more information about targets.

a. Hard-wired, electronic-target lifters are maintained by range maintenance. Units will not tamper with these systems in any way. Target malfunctions should be reported immediately to range operations.

b. Portable, radio-controlled targets are available for nonstandard ranges. The portable targets must be requested at least 10 working days before the live-fire exercise. Radio-controlled devices must be installed per the special-firing contract, used per instructions from range-control personnel, and protected from weapons fire. The using unit must arrange for pick-up, emplacement, and return of these devices. Portable targets will not be issued if the temperature is or projected to be –10 degrees.

c. Requirements for nonelectric targets (rifle/machine gun zero, Known Distance, personnel silhouette, and stake sets) will be requested by separate memorandum at least 10 working days before the live-fire exercise. The unit must list the type and number of targets, the date of firing, the pick-up date, the return date, a point of contact, and a telephone number. Range OICs will not receive range clearance until all targets and debris are removed.

d. Target sheds on established ranges are stocked with paper targets, target frames, and target stands and will be issued upon request.

e. Range control can fabricate silhouette and three-dimensional wood targets, full-size or scaled for live-fire, training events. Orders for large targets or large amounts of special targets will not be accepted less than 30 duty days before firing. Unit assistance may be required.

6-4. Range reconnaissance

a. The safety-certified range OIC or RSO for a scheduled direct fire range should check the range 2 to 4 days before use. The reconnaissance should include a review of the range SOP, a visit to the range to check the condition/layout of the facilities, and coordination with Enhanced Remote Target System range tower operators to establish firing times for upcoming training.

b. Access to the control tower of the Enhanced Remote Target System will not be granted. Range-control personnel are the only personnel authorized to activate and operate the computerized-target systems on the remote-target-system ranges.

6-5. Range receipt

a. The range OIC/RSO will ensure that this regulation, reservation contract, approved range fans, and the FMs, TMs, circulars, and pamphlets that are pertinent to the weapons being used are present on all live-fire facilities during training.

b. The range OIC or RSO must sign for the range and its support equipment from range operations. Targets are generally located on each range but special-use targets are receipted from range control. Range-support equipment must be returned upon training completion. Loss or damage of range materials attributable to unit negligence will result in a statement of charges or a report of survey.

c. Ranges, support packets, and targets may be signed out the duty day before firing, but facility keys may only be signed for on the day of firing. The unit may occupy the range on its first scheduled day. Any occupation must be reported to range operations.

d. If the receipt holder is replaced during a multi-day firing, the relieving range OIC/RSO must sign for the range and property at range operations. Special arrangements may be made with range control for property transfer in the field during multi-day exercises.

6-6. Range support (set up) and firing

a. The range OIC is responsible for the overall safe and proper operation of the range before, during, and after firing. When using live ammunition, the range OIC will designate an RSO with necessary assistants to ensure firing is conducted from prescribed points, weapons effects are kept within posted limits, and ammunition security is adhered to at all times. The range OIC will—

(1) Ensure the RSO is familiar with AR 385-63, this regulation, and pertinent FMs, TMs, safety-of-use messages, etc.

(2) When required, ensure that qualified medical personnel and dedicated MEDEVAC vehicles are on site.

(3) Verify that the correct range or firing position has been occupied.

(4) Ensure the scarlet streamer is flown during daylight firing and is replaced by a blinking, red light during periods of reduced visibility or night firing. The limit markers must also be illuminated by a nonblinking light during night firing.

(5) Ensure weapons not used in training are adequately stored and security is posted.

(6) Ensure all ammunition is listed on an approved Range Facility Management Support System reservation contract, that only authorized ammunition, including proper charges and fuzes, are used, and that all ammunition is within prescribed, safe-temperature limits.

(7) Ensure that all live-fire participants receive a safety briefing before firing on standard and nonstandard ranges. The briefing will include that anyone observing an unsafe act will immediately issue the command "cease fire," all firing will stop, and the OIC or RSO will investigate the situation.

(8) Ensure all required road guards, aircraft spotters, and road barriers are in position before firing.

(9) Provide internal communications to road guards and air spotters for all live-fire exercises. Communication may be a radio, field telephone directly to the range OIC/RSO, or a predetermined signal.

(10) Determine through visual inspection that the danger area is clear of all personnel, equipment, and wildlife.

(11) Determine all weapons provided for use in any exercise employing overhead or flanking fire have been inspected per AR 385-63 and have been declared safe for their intended use.

(12) Ensure communications are established with range control and are operative at all times.

(13) Ensure the unit provides a detail to remove ice and snow from the protective covers of the electronic-target devices. Range control will provide equipment for snow and ice removal. Target devices cannot be activated until the covers are cleaned and removed from the target coffins.

(14) Exercises using live ammunition and blank ammunition will normally not be conducted concurrently. If this becomes necessary, the live-fire portion will be conducted as the final phase of the exercise. The range OIC is responsible for taking positive control measures to ensure there is no mixing of blank and live ammunition.

(15) Obtain clearance to fire from range control.

b. When the range OIC is ready to commence firing, he/she will complete a memorandum as shown in figure 6-1 and call range operations (FM 38.30). The range control shift NCO will request information from the memorandum, record the range in hot status, issue an opening time, and give his/her initials as authentication. During firing, the range OIC and RSO both must be on site and control operations, personnel, and property. The RSO must be on duty and monitor all activity on firing lines. While operating a range, the range OIC/RSO will have no other duties. During firing, the range OIC will—

(1) Ensure that all personnel are in the correct uniform and properly use protective headgear and hearing protection.

(2) Ensure that all personnel do not remove material from the firing lines on small-arms ranges or crew-served-weapons ranges without permission from the range OIC or RSO.

(3) Ensure that the surface danger zone remains clear and that all impacts are observed to verify that all projectiles land within the impact area.

(4) Ensure that misfired projectiles are removed from the weapon on the range OIC's command, per established procedures for the weapon.

(5) Ensure that all weapons are cleared and checked during temporary suspensions of firing.

(6) Ensure that records are maintained on the type of ammunition fired, the number of rounds fired, and when required, the number of duds, with their approximate impact locations, are annotated on USARAK Form 8.

(7) Ensure that firing is promptly stopped when an unsafe act is observed or reported. Any person observing an unsafe act will immediately issue the command "cease fire," however, only the range OIC/RSO can give the command to resume firing (after investigating the situation and taking necessary actions).

(8) Respond to required communication checks with range control. Constant radio watch is required per the range firing SOP. A designated, radio-telephone operator will monitor and respond to range operations radio checks. Repeated failure to answer may cause relief of the range OIC or RSO or closure of the range.

(9) Use of fire barrels must be approved by range operations. Scrap wood may be available from range control. Barrels may be receipted from range control but must be transported and returned by the using unit and must be at least 50 meters downwind from ammunition.

(10) Range inspectors will visit ranges to check safety, compliance with regulations, and provide assistance as needed. Range inspectors are authorized to check fire ranges if safety violations are noted.

(11) Live-fire exercises requiring the activation of special-use or restricted airspace (Monday through Friday) that cannot be completed before the scheduled closing time, require a 3-hour notification for range control to grant additional firing time. This is the time required by the Federal Aviation Administration (FAA) to reroute air traffic. Weekends and holidays require 24-hour notification for changes or extensions.

c. When firing is completed, the range OIC will—

(1) Ensure all weapons are cleared.

(2) Report the number of duds and their approximate locations to range control. The range OIC will also complete a USARAK Form 8.

(3) Ensure a memorandum (as shown in fig 6-1) is completed to include the number and type of rounds fired, the number of personnel trained, and receive a closing time from range control.

(4) Range inspectors will check the police, general range condition, and removal of ammunition residue before the unit is cleared from the range. The range OIC should call range operations 30 minutes before planned closure to schedule checkout. Night fire ranges will be cleared the next morning before 1000.

(5) Final clearance from a range requires the return of all range support materials issued by range operations. Accounts become delinquent on the day training is complete. Delinquent accounts prohibit issue of additional range equipment to unit personnel.

(6) Trash must be taken to dumpsters or the landfill. All ammunition residue must be removed from the range and turned in to the ammunition supply point.

d. Before firing, the RSO will ensure that—

(1) All participants in live-fire exercises receive a safety briefing.

(2) Road guards and the aircraft spotter are briefed and safety barriers, as required, are posted.

(3) Weapons are properly positioned, and only authorized ammunition, including proper charges, fuzes, and fuze settings, are used.

(4) Range flag or lights are properly displayed.

(5) Clearance to fire has been obtained from range control.

(6) The surface danger zone is clear of personnel, equipment, and wildlife.

e. During firing, the RSO will—

(1) Ensure that all personnel are wearing proper hearing protection.

(2) Ensure that weapons are cleared onto and off of the firing line.

(3) Be on the firing line and monitor activity when range or firing point is in a “hot” status.

(4) Order an immediate “check fire” or “cease fire” when any unsafe act or condition is observed.

(5) Investigate and report all incidents and accidents to range control immediately.

(6) Remove misfired projectiles from the weapon on the command of the range OIC.

(7) Ensure weapon or munition malfunctions and misfires are reported to range control immediately.

f. After firing, the RSO will—

(1) Verify to the range OIC that weapons are clear.

(2) Relieve road guards and the aircraft spotter and remove barriers.

(3) Ensure that the number and approximate location of all duds are recorded on the USARAK Form 8 and provide copies to range control.

(4) Ensure that the range is properly closed with range control.

g. The range OIC, RSO, and other designated range-safety personnel will be assigned no other duties.

Note: If the OIC or RSO must fire on a range or become participants in a live-fire exercise, they must be replaced by other range OIC- or RSO-qualified personnel and must notify range control before the changeover.

6-7. Minimum visibility requirements

The range OIC must cease firing if the most distant downrange target to be used is obscured by fog or smoke and/or the vertical and horizontal visibility requirements are not met. See table 6-1. The range facility manager will explain this requirement.

a. These minimum visibility distances are necessary to open a range in controlled firing areas, which include all small-arms complexes, Tanana Flats (at FWA), Davis Range (at FRA), and training areas east of the Delta River (at DTA).

Table 6-1
Controlled firing area parameters

Ammunition	Horizontal Distance in Miles	Vertical Ceiling in Feet Above Ground Level
.22 caliber	6	1,400
.45 caliber	6	1,400
9mm	6	1,400
5.56mm	8	1,700
7.62mm	8	3,400
. 50 caliber	9	4,200

b. Aircraft spotters are required for all ranges in the controlled firing area.

APVR-RPTM-TR (Date)

MEMORANDUM FOR OIC, RANGE/FIRING POINT

SUBJECT: Range/Firing Point/Facility Opening and Closing Procedures

1. To open the range/firing point/facility, complete 1a and 1b below and call Range Operations, FM 38.30.

a. Items (1) through (16) below must be verified and initiated before requesting permission to open the range:

(1) Range flag/light is displayed. _____
(2) OIC is present on the range. _____
(3) RSO is present on the range. _____
(4) USARAK Regulation 350-2 is present on the range. _____
(5) Appropriate TMs/FMs are present on the range. _____
(6) Range firing orders are present on the range. _____
(7) All personnel have received the safety briefing. _____
(8) Personnel are using hearing-protection devices. _____
(9) Qualified medic with an aid bag is present (when required). _____
(10) Designated vehicle/ambulance is present (when required). _____
(11) Backup communication system tested on the range (when required). _____
(12) Road guards and/or barriers emplaced (when required). _____
(13) Approved overlay is present (when required) and range limits have been identified by azimuth and terrain features, or by Range Control limit marker. _____
(14) A dedicated radio operator is present (when required). _____
(15) Fire-fighting equipment is present (when required). _____
(16) A dedicated air guard spotter is present. _____

b. Items (1) through (8) below must be completed and passed to Range Operations during the range opening radio call.

(1) Grade/last name or OIC. _____
(2) Grade/last name of RSO. _____
(3) Grade/last name of radio-telephone operator. _____
(4) Type of weapons to be fired. _____
(5) Number of personnel on the range. _____
(6) Type of ammunition to be fired. _____
(7) Maximum ordnance weapons (Mortar/FA only). _____
(8) Number of tubes (Mortar/FA only). _____

c. The following information will be recorded when given to you by Range Operations during the range opening radio call—

(1) Time range opened. _____
(2) Range Shift NCO initials. _____

Note: All firing ranges and some nonfiring facilities must maintain radio communication with Range Operations AT ALL TIMES. Range Operations will make radio checks with the user at random times, at least once every hour. A dedicated radio-telephone operator is required. See the range SOP and USARAK Regulation 350-2.

Figure 6-1. Memorandum for range opening and closing procedures

APVR-RPTM-TR
SUBJECT: Range/Firing Point/Facility Opening and Closing Procedures

2. To close the range/firing point, complete 2a through 2g below and call Range Operations at FM 38.30. (OIC must give Range Operations 30-minutes notice before calling for range closure, to ensure availability of a range inspector).

a. Time range closed. _____
b. Grade/last name of person closing range. _____
c. Total number of personnel trained. _____
d. Total number of each type round fired. _____
e. Location (by range lane or grid square) and type of dud rounds noted. _____
_____
f. Troops have been inspected for ammunition. _____
g. All ammunition and residue have been removed. _____
h. Ensure the following areas have been policed of trash, brass, cigarette butts, and broken sandbags:
(1) Foxholes.
(2) Buildings (including towers, ammunition shelters, latrines, box cars, target sheds, bleachers, etc.).
(3) Road edge (including ditch).
(4) Place intact sandbags neatly in front of foxholes.
(5) Check the facilities below that need repair and describe the problem. This information will help the near- and long-term range repair program.
[ ] (a) Towers. _____
[ ] (b) Target sheds. _____
[ ] (c) Range sheds. _____
[ ] (d) Bleachers and shelters. _____
[ ] (e) Latrines. _____
[ ] (f) Flag poles. _____
[ ] (g) Firing lines. _____
[ ] (h) Targets (nonelectrical ranges). _____
[ ] (I) Land and boundary markers. _____

3. After receiving closing time and range clearance, turn in this memorandum to Range Operations along with all materials issued.

Figure 6-1. Memorandum for range opening and closing procedures—Continued

6-8. Wildlife on the range

Units discovering wildlife on a range or in training areas during the conduct of live-fire exercises will immediately cease firing and report the location and number of animals to range control.

a. Extreme care must be taken to prevent the harassment of wildlife. Range control will request that Alaska Department of Fish and Game wildlife personnel are dispatched to the area for assistance.

b. If any animal is wounded during firing, the range OIC will immediately cease fire and notify range operations. Range operations will contact Alaska Department of Fish and Game wildlife personnel.

c. Aircraft, including helicopters, may not be used to herd/chase wildlife off the ranges or training areas.

d. After the area is clear and permission is granted from range control, firing may resume.

6-9. Range police and maintenance

a. Ranges are policed by using units. Trash accumulation or damage found on a range must be reported by the range OIC to range operations before requesting hot status. The range inspector will be dispatched to determine responsibility for cleanup or repair.

b. The range and training area maintenance program is described in appendix C.

6-10. Government law enforcement agency range usage

a. Government law enforcement agencies are authorized use of military ranges and training facilities. The agency must apply through the public affairs office for a license, which may approved by the post commander.

b. Upon receipt of the license, the government agency must meet the following requirements:

(1) Provide range control with a listing of candidates for range OIC and RSO. These individuals must have completed a National Rifle Association-approved rifle and/or pistol instructor course or installation equivalent. They must also attend a range safety briefing and receive a passing score on the range safety certification test.

(2) Schedule ranges and training facilities with range control. Requests will be submitted to range control using the agency's stationery. A copy of the approved license will be attached to the request for ranges and training facilities. Military training has priority and may require the rescheduling of ranges or facilities to eliminate scheduling conflicts.

c. Range safety certification is valid for 1 year.

6-11. Civilian organization range usage

a. Civilian rifle and pistol clubs are authorized use of range facilities when available. The organization must apply through the public affairs office for a license. The license will be approved by the post commander.

b. Upon receipt of the approved license, the organization must ensure the following requirements are met:

(1) Provide range control with a list of candidates for range OIC and RSO. These individuals must have completed a pistol and/or rifle instructor course that is approved by the National Rifle Association or

installation equivalent. The candidates must attend the range safety certification briefing and receive a passing score on the range safety certification test.

(2) Civilian organizations may schedule ranges as they are available. Military training has priority and may require the rescheduling of ranges for civilian use.

(3) A nonfiring range OIC and RSO will be in charge of the range.

(4) Range safety certification is valid for 1 year.

(5) Required medical support may be substituted with qualified, emergency-medical, technician personnel.

6-12. Control of military family members and spectators on firing ranges and training facilities

a. Requests to have military family members or spectators on ranges or training facilities to view or participate in unit training activities or demonstrations must be submitted to range control a minimum of 12 working days before the event.

b. The requester should identify any special equipment or features being added to the range or training facility to accommodate the spectators or military family members, such as bleachers, parking areas, aid station, portable toilets, etc.

c. The only time a military family member under age 18 will be permitted on the firing line is under competent adult supervision and when engaged in an approved course of marksmanship training such as Junior Reserve Officer Training Corps. These military family members must obey all firing and safety regulations, including the wearing of personal-protective-hearing devices. Failure to comply with these rules will result in immediate removal from the firing line and a denial of the privilege to participate in weapons firing. All other military family members not actually engaged in firing or coaching must remain behind the firing lines.

Chapter 7
Indirect Fire Ranges

7-1. General

a. This chapter discusses live fire of mortars and field artillery. For firing hours, see chapter 2. Units must request activation of special-use or restricted airspace for firing (see chap 10).

b. Mortars and field artillery range OICs and RSOs must be familiar with AR 385-63.

c. Range OICs will ensure that safe range-to-canister impact is computed before firing illumination. When firing illumination during high fire hazard levels, flares must impact on the open impact area, not in the trees. If this cannot be done due to wind or other factors, illumination may not be fired.

d. Artillery firing points and observation posts are located throughout training areas and are scheduled separately. Therefore, when a training area is assigned it does not include the artillery points or observation posts. When these positions are scheduled to be occupied, units utilizing the training areas must remain well clear of the firing points and observation posts. Direct coordination between both units will be conducted so that training will not be interrupted or delayed.

e. The range OIC/RSO will conduct a safety briefing for all live-fire participants. The briefing will include that anyone observing an unsafe act will issue the command “cease fire,” all firing will stop, and the range OIC or RSO will investigate the situation.

f. The scheduling criteria for mortar points differ from the scheduling of artillery firing points and observation posts. When mortar points are scheduled, the training area and downrange danger zones (training area) must be scheduled as part of the mortar point to prevent the firing of mortars over troops.

g. Indirect fired weapons will not be fired across the Alaska Pipeline, state roads, and built-up areas. Pieces can be fired from within controlled firing areas depending on the ordinate of the round.

h. See chapter 1 for medical/MEDEVAC support.

i. Before firing, the scarlet streamer will be displayed on the appropriate flagpole for daylight firing and replaced with a red, blinking light during period of darkness or limited visibility.

7-2. Command safety certification program

a. Units firing field artillery and mortars must establish and maintain a command safety certification program at battalion level, per AR 385-63, for personnel controlling indirect-fire exercises. Command safety certification is required for firing personnel serving as artillery- or mortar-range OICs/RSOs, battery commanders, battery executive officers, mortar-platoon leaders, fire-direction officers, chiefs of firing batteries, gunnery SGTs, mortar-platoon SGTs, and howitzer-section chiefs. A record of certification for all but range OICs/RSOs will be maintained at the unit.

b. Certification of range OICs/RSOs will be consolidated on a memorandum to the local range facility manager per the example at figure 7-1 and signed by the battalion or separate battery/company commander. The certificate is valid for 1 year from date of issue unless superseded by the unit. Single-entry additions and deletions will not be accepted. Certification of personnel involved in firing incidents will be suspended during subsequent investigations.

c. A command safety certification roster must be updated annually and filed at range control. Units without an approved roster and certificate on file at range control will not fire.

7-3. Firing points

a. Artillery pieces can be located anywhere within the training area, providing a range fan is pre-approved by range control (see para 7-8). Mortars will be fired from surveyed firing points unless position and azimuth determining system location equipment is used.

b. Mortar range OICs or RSOs must sign for the point and support equipment, and must be present on site throughout use. Artillery range OICs or RSOs (usually the battalion operations and training officer or fire-direction officer and RSO) must sign for and open firing points used by the battalion and must be in the field throughout firing. If the receipt holder is replaced during a multi-day exercise, the unit must coordinate with range operations for field transfer of responsibility and property. Otherwise, range OICs must transfer receipts at range control.

c. Live-fire exercises affecting the use of restricted airspace that cannot be completed before the scheduled closing time (Monday through Friday) require a 3-hour notification for range control to grant additional firing time. This is the time required by the FAA to reroute air traffic. Weekends and holidays require 24-hour notifications for changes or extensions.

d. Two separate scheduling actions are required for indirect-fire weapons, the firing point in training areas and airspace. The restricted area airspace on Fort Greely is layered. For utilization contact Donnelly Training Area range control.

7-4. Mortar firing

a. Firing over the heads of troops is prohibited. Range OICs and RSOs must know the authorized target area as described in the mortar-point SOP, and must ensure no personnel are under the trajectory. The target area overlay on the plotting board must also be drawn on mortar forward observers' maps.

b. The range OIC will ensure unit safety and that chain of command personnel have completed the command safety certification program.

c. An M2 aiming circle or the M2 compass must be used to lay 81mm mortars. However, the lay must always be checked by an independent aiming circle. The requirement for an aiming circle as a check instrument will not be waived.

d. Unless aiming circles are not authorized by the table of organization and equipment at the battalion level, 60mm mortars must be laid per paragraph c above. In this case, 60mm mortars may be laid and checked with two M2 compasses. Check readings between mortar and compass sight and between lay and check compass, must agree within 10 mils. An independent check instrument must be present and in use. There are no exceptions.

e. Locations for 60mm and 81mm direct lay, direct alignment, and 60mm hand-held firing will be authorized on a case-by-case basis and will be done as follows:

(1) The range OIC must confirm with an M2 compass that the azimuth of fire is within safe limits.

(2) For direct lay and hand-held firing, the gunner must be able to see the target.

(3) The RSO must choose downrange reference points as visual firing limit markers and station himself/herself to ensure the weapon is within these limits at all times.

(4) For 60mm, hand-held firing is limited to charge 1 and below. Cartridges M720, M721, and M722 may only be fired at charge 1 and below.

(5) For 60mm, direct lay and direct alignment is limited to charge 2 and below. Cartridges M720, M721, and M722 may only be fired at charge 2 and below in the M19 mortar.

f. Range OICs will ensure mortars are separated by the distance stated in the weapon FM. The bursting radius of the ammunition being fired will be used to set the minimum safe distance from each tube, inside which nonessential personnel are excluded. All personnel within the minimum safe distance must wear helmets.

7-5. Field artillery firing

a. At least one commissioned officer must be present on each hot firing point. This officer (usually the executive officer) is the position commander and may also be range OIC. The position commander performs those duties listed in AR 385-63, chapter 11. The position RSO must be a sergeant first class (SFC) or above and can have no other duties during firing.

b. Artillery surface danger zones are established by AR 385-63. Hazard Areas A through E vary dependent on the weapon and ammunition fired. Personnel access to Hazard Areas A, B, and C is prohibited without permission from range operations and use of appropriately constructed bunkers per AR 385-63. During indirect fire, personnel not involved may occupy Hazard Area D and that portion of Hazard Area E greater than 350 meters from the weapon, when lots of artillery ammunition are cleared and approved for overhead firing. Personnel involved in the firing may be closer than 350 meters to the weapon. Position commanders must keep the 350-meter, hazard area clear. This may require placing guards on range roads in front of the battery with radio communication to the fire direction center.

Note: Personnel from range control are allowed within this restricted portion of Hazard Area E. Visitors sponsored by the unit are admitted by the unit chain of command. Weapon crews and personnel involved in firing must wear Kevlar helmets or equivalent.

c. Artillery units must have an internal range safety and firing SOP. Use of the SOP is mandatory for artillery units.

7-6. Limited visibility

Mortars and artillery may not fire when targets are masked by fog, smoke, or other obscurants without using an impact locating radar.

7-7. Observation

a. All impacts must be observed visually or by radar. The range OIC must not repeat for rounds sensed as unobserved until firing data, weapon lay, and increments are thoroughly checked and the unobserved round is located. Any round fired and not observed will be immediately reported to range operations.

b. Range OICs and RSOs will be alert to the presence of aircraft in the area and will not fire if the aircraft—

(1) Are on the gun target line and were not previously coordinated as part of the exercise.

(2) May be struck by debris or fragments.

7-8. Firing point development and overwatch

a. Firing point survey data is in the Artillery Trig List noted and preserved. A copy of the Artillery Trig List is maintained at battalion operations and training officer and range operations. The operations and training officer will ensure all changes to the Artillery Trig List are posted to the range-control copy.

b. If new artillery points are needed, the requesting unit and range control will coordinate environmental clearance, site preparation, and survey. The unit will prepare new, safety data and amend the Artillery Trig List. New mortar point development follows the same procedure, except the firing unit is the lead agency with range control alternate surveying procedures:

(1) Unit survey personnel and the RSO will decide on a suitable location for the orienting station.

(2) Survey personnel will use conventional survey techniques and/or position and azimuth determining systems to determine an end of orienting line for each position.

(3) The RSO will verify the surveyed location of the orienting station.

(4) The RSO will use graphic resection, global positioning system, or a map spot to verify that the orienting station is within 100 meters of the surveyed location.

c. Hip shoots.

(1) Dry shoots may be conducted anywhere the unit has scheduled to operate and require no overlays.

(2) All live-fire hip shoots must be coordinated/approved by range control. Live shoots will be from surveyed or position and azimuth determining system-located points and have approved safety data.

(3) Approved overlays will have a firing name or number assigned that must be given as part of the request to go hot by the range OIC.

7-9. Mortar and artillery firing incidents

a. A firing incident occurs when a round lands outside of the unit's prescribed safety limits, which are developed from the safety card data for a firing point. The degree of severity of any given incident is classified into one of the following categories:

(1) Round impacting in Areas A, B, or C. Notify range control and the major subordinate command. The incident is to be investigated by the major subordinate command assisted by range control, with a final report submitted from the major subordinate command to range control.

(2) Rounds impacting outside the surface danger zone (Areas A, B, or C). Notify range control and the major subordinate command. The incident is to be investigated by range control with the major subordinate command assisting, with a final report submitted from the major subordinate command. Range control will render a verbal report to the DPTSM, USARAK Safety, and the command operations center/emergency operations center on the nature and suspected cause of the incident.

b. The following information will be reported to range control when a firing incident occurs:

(1) Name, unit, and location of person reporting.

(2) Date, time, and location of impact.

(3) Any injury to personnel. See chapter 1 for MEDEVAC procedures.

(4) Number of rounds.

(5) If an airburst, estimated height.

(6) If a ground burst, location of the crater. (If a crater is available, the reporting unit will ensure it is not disturbed until a range control investigator arrives.)

(7) Equipment damage, if any.

c. Range operations will—

(1) Order check firing of all ranges and firing points by broadcasting the command "Check Fire, Freeze" on the range control nets (FM 38.30). This command is used only for firing incidents.

(2) Dispatch the range control firing incident investigation team and if an artillery unit is firing, notify the unit operations and training officer that assistance is needed.

(3) Notify the following (in order):

(a) The command operations center/emergency operations center and the DPTSM during duty hours or the field officer of the day during after-duty hours.

(b) The ammunition supply point (as needed).

(c) Explosive ordnance disposal (as needed).

(d) Post safety.

(4) Monitor MEDEVAC and the investigation and return units to hot status as the incident is isolated in the field. Return to hot status is allowed by the range facility manager or the DPTSM, after consultation with the investigators.

(5) Direct inquiries to the DPTSM, the command operations center, the emergency operations center, or the field officer of the day.

d. Units on ranges and firing points, regardless of location, impact area, or weapons, will cease firing at the command of "Check Fire, Freeze" from range operations. Mortar and artillery range OICs or position commanders will—

(1) Issue the command “Rear of the piece, face the piece, fall in.”

(2) Preserve firing data on weapons and aiming circles.

(3) Prevent movement of ammunition components and tools.

(4) Prepare to receive investigators.

(5) Preserve firing data within the fire direction center.

(6) Ensure that fire direction officers report initial target location and location of any subsequent rounds.

Note: Only investigators may check data, propellant, fire-control instruments, craters, or other aspects of firing or impact points. Unit personnel must secure and wait.

e. Investigators from range control and the major subordinate command will isolate the responsible unit or develop a list of candidates, while ensuring no items of evidence are lost or overlooked. If the incident caused fatal injury or damage in excess of $200,000.00 investigators will brief the unit on preserving sites pending arrival of an Army Safety Center team from Fort Rucker.

f. The investigation team will make an initial report of findings to the DPTSM and will inform the unit major subordinate command (United States Army Advisory Group-Alaska, Senior Army Advisor for reserve component firing) that a formal investigation is required. If multiple units are involved and the investigation team cannot determine which unit is responsible, all major subordinate commands involved must investigate. The investigating officer(s) must be on site within 1 hour of notification and will be briefed by the team and unit personnel. A report must be forwarded to the DPTSM within 10 calendar days of the incident, with an information copy to Installation Safety.

g. In any category, when a suspected malfunction of munitions or equipment occurs, notify range control and carry out firing-incident procedures.

7-10. Excess propellant charge increments

a. Excess propellant charge increments will be placed in a metal or wooden, covered container at least 25 meters behind each weapon. There will be one powder pit per weapon.

b. Excess increments will be burned at the end of each day's firing. In view of the potential health hazard associated with solid residue produced from burning of M-6 and M-1 propellants, burn pans will be used for burning propellants.

c. An NCO, SSG or above, will receipt for the facility and supervise the use of the burn pan. It is recommended that fire-fighting equipment be on site during the powder burning.

d. Burn pans are located at—

(1) FRA—Firing Point 1.

(2) FWA—Intersection of Brigadier and entrance to Firing Point 9.

(3) DTA—Observation Post (OP) 7A and Texas Range.

e. In an effort to minimize exposure, all activities burning M-6 or M-1 propellant will take the following actions:

(1) Inform all potentially exposed personnel participating in the burning of these propellants that direct skin contact with the solid residue or inhalation of the smoke may be a health hazard. Prohibit smoking, eating, or drinking in areas where propellant is being burned.

(2) The solid residue from burning will be treated as potentially toxic waste. It will be collected and placed in a plastic or metal overpack of appropriate size and turned in by the using unit as hazardous waste to the DPW, Environmental Department, Natural Resources Branch.

(3) Precautions must be taken to prevent unprotected personnel from making contact with the smoke or residue from propellant burning. In some cases, this may require road guards to prevent entry into the area during propellant burning.

(4) In cases where direct contact with the solid residue or smoke cannot be avoided, ensure that all personnel take protective measures, including the appropriate use of gloves, coveralls, and respirators. Require thorough hand washing before eating, smoking, or using toilet facilities.

7-11. Declination station/survey information center

a. The artillery battalion survey section maintains declination stations and the battalion operations and training officer maintains the Artillery Trig List.

b. Diagrams of declination stations are available at range control or from the survey section NCOIC.

7-12. Safety data

a. Units will compute safety data for all live-fire exercises per FM 6-40, appendix B. A second, safety-certified person must verify all computations before firing.

b. Fire direction centers must plot the position's safety diagram, target area, and current no-fire areas on a 1:25,000 firing chart.

c. Fire direction centers will display the position's Safety T in the fire direction centers in a prominent location.

d. Fire direction centers will distribute Safety Ts to each gun section, battery commander, executive office, chief of firing battery, and gunnery SGT.

7-13. Airspace coordination

a. During live-fire exercise conduct, range control will notify flight operations from all USARAK posts, Elmendorf Air Force Base, and Eielson Air Force Base to advise them of maximum ordinates over impact areas.

b. Units conducting joint air attack team live-fire exercises will conduct airspace coordination with Air Force units, Army units, and range control.

(Office symbol) (MARKS) (Date)

MEMORANDUM FOR Range Control

SUBJECT: Indirect Fire Command Safety Certificate for) _____(unit)_____

1. Reference:

a. AR 385-63.

b. USARAK Regulation 350-2.

2. The following personnel have been trained and tested per the references and are certified to perform the duties shown:

Name	Rank	SSN	Unit	Duty
Doe. C. E., Jr.	CPT	000-00-0000	C Battery, 4/11th FA	Firing OIC, Firing Point Safety Officer
Doe, Mike C.	1LT	000-00-0000	C Battery, 4/11th FA	Firing Point Safety Officer
Doe, Rodney	SFC	000-00-0000	C Battery, 4/11th FA	Firing Point Safety Officer
Doe, Jeffery	1LT	000-00-0000	C Battery, 4/11th FA	Infantry Mortar OIC
Doe, John D.	SFC	000-00-0000	C Battery, 4/11th FA	Infantry Mortar RSO

3. This certificate is effective for 1 year from date or until superseded.

M. ROCK
LTC, FA
Commanding

Figure 7-1. Sample memorandum for indirect fire safety certification

Chapter 8
Combined Arms Live-Fire Exercises/Live-Fire Maneuver Exercises

8-1. General

A special firing course is any live-fire event that deviates from the designed purpose of a given range or that is outside an established range. Because of the limitations of the Army's permanent range system, most live-fire training activities beyond individual weapons qualification must be done on special firing courses. Trainers are encouraged to propose such courses and will receive full support from range control in development. Guidance is contained in this chapter and in AR 385-63.

8-2. Requirements

Special firing courses must meet three requirements:

a. There must be a valid, unit, training need for the skills developed by the course. This may be drawn from a soldier's manual, mission training plan, or a unit mission.

b. The proposed course should not duplicate a range or established firing area already in existence on the range complex.

c. There must be adequate time before the firing date to adapt the maneuver to the available terrain, develop firing limits and overlays, schedule the required area, and publish hazards.

8-3. Certification process

a. The certification process ensures that individuals are trained and certified by senior commanders for conducting CALFEXs and live-fire maneuver exercises.

(1) Senior commanders for units of battalion and below certify all company commanders, first sergeants, platoon leaders, platoon SGTs, and others involved in the planning and conducting CALFEXs and live-fire maneuver exercises.

(2) This certification requirement is in addition to the general range certification course that range control conducts for the range OIC and RSO.

(3) Commanders will document all personnel that they certify and provide a list of individuals certified to the appropriate range control.

b. Live-fire maneuver exercises, including the Simpsonville and Bondsteel CALFEX, will not be conducted until the live-fire certification process is completed.

8-4. Live-fire exercise development cycle

a. The range OIC must meet with the range-facility specialist a minimum of 6 weeks in advance of a live-fire exercise to discuss feasibility, location(s), environmental restrictions, and other general requirements. During this session, necessary terrain and airspace should be reserved to support the exercise.

Note: Failure to follow the established time lines or meet special requirements listed below could result in rescheduling/canceling the event.

b. The range OIC will provide range control with a detailed written plan of the live-fire exercise or CALFEX, with surface danger zone overlays, 4 weeks before the exercise start date. Submission of formal risk management analysis is required before conducting the live-fire maneuver exercise/CALFEX.

c. The range OIC and RSO will conduct a range walk with representatives from range control and post safety to confirm limits, surface danger zones, and other constraints.

d. In addition to the scenario and overlays, the range OIC may be required to prepare an environmental assessment or record of environmental consideration. Assistance may be obtained from DPW, Environmental Branch. If an environmental assessment is required, processing as required by AR 200-2 may take up to 5 weeks. Use of powered equipment in wetlands requires a permit. Applications must be submitted to DPW, Environmental Branch 180 days before the exercise/training effective date.

e. No later than 10 working days before the exercise start date, the range OIC and RSO will make final coordination with range control and post safety to schedule a range walk to verify complete range set up.

f. Commanders must ensure that all range OICs and RSOs to be used during the live-fire exercise or CALFEX are identified and present throughout all phases of the exercise development cycle.

g. Fire-area scheduling must include time for set up and clean up if special preparations are required. These preparations (trenches, bunkers, wire obstacles, targets, and so on) must be included in the initial proposal, scenario, terrain sketches, and environmental considerations.

h. Before live fire, the exercise range OIC must ensure that all required road guards and barriers are positioned. Also, all special requirements (e.g., overflight or surface sweep of the hazard area) are completed and continued for the exercise's duration.

i. During course setup, the range OIC must test road guard communications and the course safety and control systems. All road guards must have communications with the unit exercise command post and the command post must have reliable radio communications with range operations throughout the firing period.

j. The firing unit commander will determine and enforce hearing protection requirements, the use of flak vests, and eye-protection devices.

k. Positive clearance from a range inspector must be received before a unit may close out any special firing course. Prepared positions, barriers, and ammunition residue must be removed. Missile wire must be recovered.

8-5. Live-fire safety requirements

a. Range SOPs (post specific) are required for each range. SOPs will include a requirement that range users (commanders, range OICs, or RSOs) conduct a safety briefing for all personnel participating in a CALFEX or live-fire exercise. The safety briefing will include accident lessons learned from previous accidents and also emphasize that anyone observing an unsafe act will immediately issue the command "cease fire," all firing will stop, and the situation will be investigated by the range OIC or RSO.

(1) Commanders must ensure that all individuals who will take part in live-fire training/exercises have fired/used and passed a qualification course for the weapon or system they will use in the training/ exercise.

(2) Rehearsals (dry runs) must be conducted before live fire. Rehearsals will be conducted under the same conditions with the same people as the live fire (e.g., night rehearsal for night live fire).

(3) During CALFEX, all participants must be oriented on the capabilities of the weapons used by other components in the exercise.

(4) During live-fire exercises, commanders must designate individuals (e.g., observer-controllers) who are not part of the tactical or administrative scheme to monitor safety. These individuals will maintain

visual contact with maneuvering elements and must have some means of signaling a cease fire. Communication with range control is mandatory.

(5) For battalion or larger exercises and CALFEXs, a field grade officer will be appointed as the exercise OIC.

b. Unauthorized personnel are prohibited from handling unexploded ordnance/munitions or removing them from the range/training area(s).

8-6. Bunker construction for high-explosives grenade training

a. Every precaution will be taken when using fragmentation grenades to prevent injury from flying fragments or debris. This includes the construction of bunkers that will provide maximum protection to the soldiers throwing the grenades.

b. The following USARAK requirements are in addition to the requirements specified in AR 385-63 and FM 3-23.30 will be followed when conducting “knock out a bunker exercises.”

(1) Construction of the bunker(s) will be done using the plans and materials listed below. See figures 8-1 and 8-2. Commanders must ensure that the materials are not dry rotted, decayed, or deteriorated to a state that they may disintegrate from the explosion of a grenade or multiple grenades.

(2) Materials needed are—

(a) Railroad ties or equivalent.

(b) 3/4-inch plywood.

(c) 3-inch galvanized screws or nails.

(d) Filled sandbags.

(e) Sand.

(3) The bunker design has been reviewed and accepted as the USARAK standard—no exceptions. When constructed, the bunkers will be inspected by range control before live, hand grenade use to ensure compliance with the plan. The—

(a) Floor of bunker must be 24 inches below the ground surface.

(b) Minimum, inside, bunker measurement is 4-feet high by 6-feet long by 4-feet wide.

(c) Maximum door opening is 2 feet by 2 feet.

c. The bunker will be constructed using a single layer of railroad ties. Interior and exterior walls will be encased in 3/4-inch plywood (this will keep the ties from shifting). Plywood will be replaced on the interior walls as needed.

d. Explosive-ordnance-disposal personnel will inspect the completed bunker(s) to determine if they can safely access the interior to destroy a dud grenade.

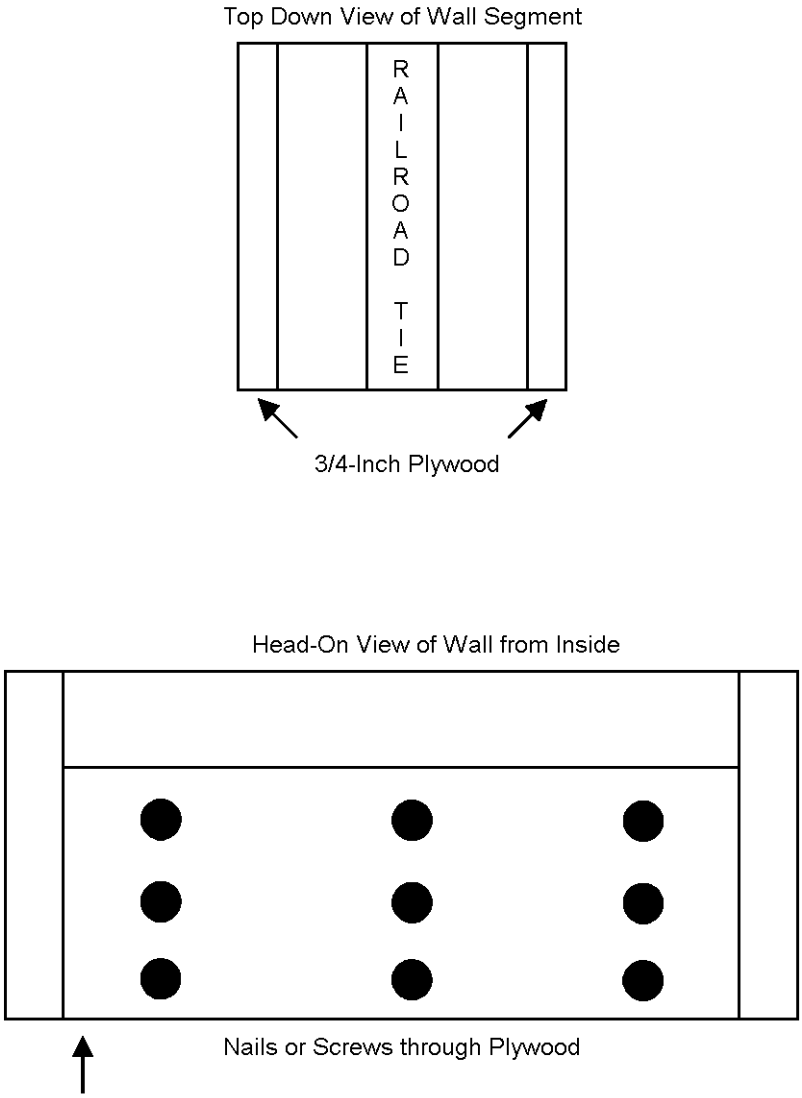
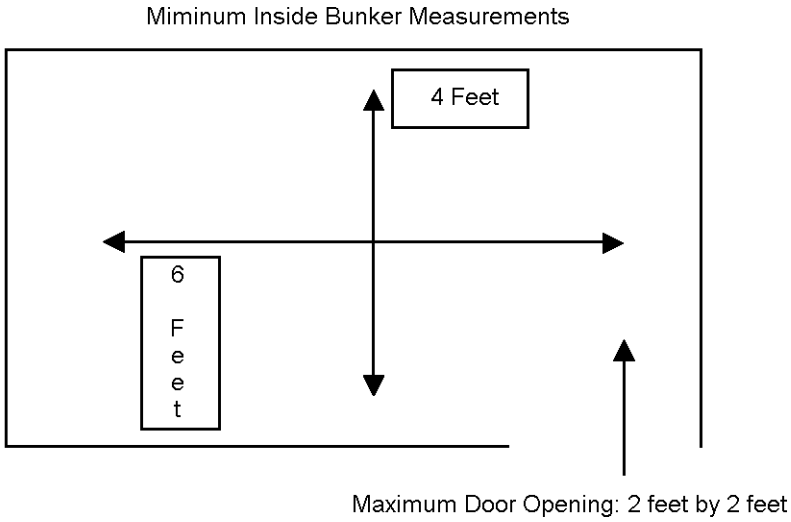
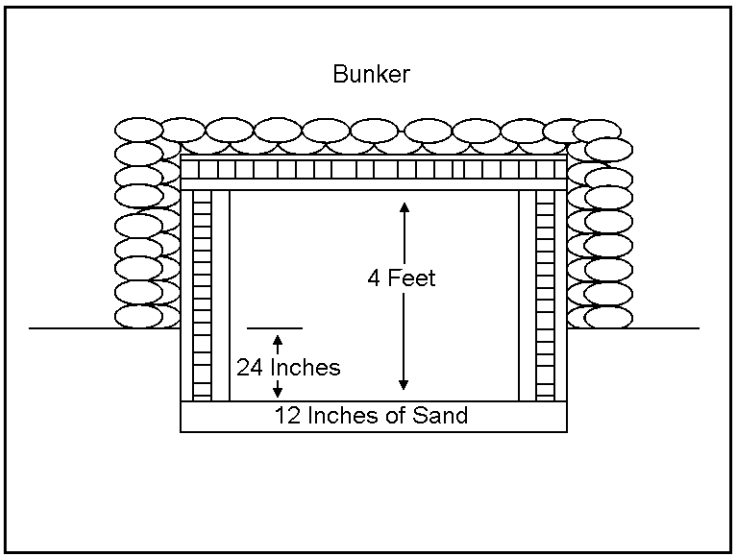


Figure 8-1. Bunker walls



A pit will be dug into which the bunker will be set or built. The pit will be 3 inches deep and back filled with 12 inches of sand. See the example below. If mechanical means are to be used to dig the pit, the OIC must consult with the Environmental Division to ensure digging does not take place in wetlands, for which a permit is required.



Sand displaced by exploding grenades will be replaced to eliminate depressions that could hide a dud grenade.

Figure 8-2. Bunker inside construction

e. Requirements for personal protective clothing and equipment will be strictly enforced (hearing protection, flak jackets, helmets, etc.).

(1) Construct a throwers' pit or a separate barrier, 4 to 6 feet from the bunker, that the thrower(s) can seek cover in or behind after the grenade is thrown. The barrier will be equivalent to a screen of sandbags 20-inches (0.5-meters) thick and 6-feet high. The pit or barrier will be designed to provide additional protection for the thrower(s).

(2) A dud will result in an immediate cease fire and notification to range control. Unauthorized personnel will not approach, move, touch, or handle a dud grenade. Only explosive-ordnance-disposal personnel will be used to destroy dud grenades.

(3) Resumption of firing will not occur when a dud has been destroyed in a bunker until—

(a) The explosive ordnance disposal unit contacts range control and verifies that the dud was destroyed.

(b) A thorough inspection of the bunker is conducted by the unit range OIC to ensure the bunker is intact and safe for continued use.

(c) Range control grants permission to resume operations.

8-7. Risk management

a. Units identify operational hazards and implement appropriate controls to minimize training mission risks. Formal risk management documentation is required for live-fire exercises/training.

b. During live-fire planning, the risk-management plan must address possible fratricide hazards and specific control measures to eliminate, minimize, or control the possibility of fratricide.

c. Detailed written plans will be developed between range control and the unit range OIC. It will require submission of formal, risk-management documentation before execution. This entails much more than completion of a risk-assessment card. It requires written explanation or rationale for risk-assessment codes for every phase of the training/exercise. For live-fire exercises, the formal, risk-management plan and the exercise document (operation plan, SOP, etc.) must be reviewed by the post safety manager and or the range manager. The plan will include—

(1) A detailed plan of maneuver and fire support.

(2) A list of weapons, ammunition, pyrotechnic or smokes, and chemicals to be used.

(3) Unit control measures, including means of communication.

(4) Terrain features and facilities required.

d. All residual risks (risks that remain after controls have been developed and carried out) must be accepted at the appropriate level of authority. The level of the decision maker should correspond to the level of the risk. The greater the risk, the more senior the final decision maker should be. Within USARAK, risk-acceptance, decision levels are established as follows (other units, battalion, company, etc., will establish and publish similar policy):

(1) High risks must be accepted and approved by brigade commanders (colonel) or higher.

(2) Extremely high risks must be accepted and approved by the USARAK commander.

(3) When maneuver is scheduled in temporary or conventional impact areas and residual risks are extremely high, major command commander-approval is required.

8-8. Medical support/medical evacuation

See chapter 1 for information on medical/MEDEVAC support.

8-9. Aerial gunnery

a. Range fans will be developed with the appropriate range control.

b. Airspace requirements are listed in chapter 10.

Chapter 9
Demolitions

9-1. General

a. Demolitions firing on the range complex includes activities involving explosive charges, detonating cords, mines, shaped charges, cratering charges, bangalore torpedoes, field expedient munitions, and other exploding devices not fired from weapons. Demolition firing must be conducted per FM 5-250, AR 385-63, and appropriate soldiers manuals and training guides. Active demolition areas are announced in the weekly bulletin.

b. Range OICs and RSOs must be familiar with and have on hand appropriate weapon and ammunition publications governing handling and firing of demolitions and indirect-fire ordnance. These references include:

(1) AR 385-63.

(2) AR 385-64.

(3) FM 5-250.

(4) FM 20-32.

(5) This regulation.

c. The following individuals must be command safety certified per the USARAK demolitions safety certification program. Certification is valid for 1 year.

(1) Range OIC.

(2) RSO.

(3) Personnel instructing or supervising demolitions preparation and firing.

(4) Personnel preparing or firing demolitions.

d. Students or soldiers receiving training on demolition procedures are not required to be safety certified to prepare or fire demolitions, but must be directly supervised by an instructor or trainer who is certified per the USARAK demolitions safety certification program.

e. A demolition plan is required before training. The plan will consist of two parts: 1) a written description, shot-by-shot, of the demolitions training to be conducted; and 2) DA Form 2203-R (Demolition Reconnaissance Record) will be prepared by each unit when explosives used in demolitions (for example: C-4, dynamite, Trinitrotoluene (TNT), bulk explosives, and firing systems). A demolition plan is not required for Category 1 items, grenades, and mines.

(1) A copy of the training unit's DA Form 2203-R will be given to range scheduling 1 week before the unit requests use of the range for training purposes.

(2) The training unit's DA Form 2203-R must be approved one level above the unit requesting explosives, but at least at battalion level.

f. General safety.

(1) The safety and precautionary information, including the operating procedures contained in AR 385-63, AR 385-64, and FM 5-250, will be strictly adhered to when handling explosive and electric blasting caps. Two general rules relative to all explosive materials and situations are emphasized:

(a) Never handle explosives carelessly.

(b) The responsibility of preparation, placement, and firing of charges will not be divided. One person will be responsible for the supervision of all phases.

(2) FM 5-250 will be used as a guide to usage, handling, storing, transportation, and safety precautions for explosives and demolition equipment. The appropriate formulas are described and illustrated in FM 5-250.

(3) Modernized, demolition initiator is the name given to a family of components for the initiation of a wide range of explosives and demolition munitions. The modernized, demolition initiators will augment/ replace the M7 nonelectric blasting caps and the M6 electric blasting caps and detonating cord. The snap-together components will allow simplification of most types of explosive priming and will improve reliability and safety of all explosive priming systems.

(a) The modernized, demolition initiator is compatible with existing electric and nonelectric, demolition-initiating systems and capable of initiating the full range of military explosives.

(b) The modernized, demolition initiator provides the user with the advantages of a safe and efficient method of nonelectrically initiating a full range of explosives and demolition devices with the same instantaneous actions that electric initiation provided.

(c) The modernized, demolition-initiator blasting caps eliminate the risk of accidental initiation from radio transmitters' static or electrical discharge. The caps are sealed, immune to moisture, and highly reliable.

1. Modernized, demolition initiators have some larger, less powerful than normal caps but they are still dangerous, handle with care.

2. Take care not to strike, drop, or otherwise abuse the modernized, demolition initiator, shock-tube, and blasting caps.

3. Report any unsafe act or damaged items to the range OIC/RSO.

g. Before explosive detonation—

(1) The person in charge of blasting operations will ensure the danger area is clear and guards are posted to prevent personnel from entering the area. The person in charge will personally make a last-minute check of the danger area before the first charge is detonated.

(2) All equipment that might be damaged by the explosion will be moved a safe distance away. Minimum safe distances at which personnel in the open are relatively safe from missiles created by bare charges placed on the ground are specified in AR 385-63 and FM 5-250, table 6-2. Increased minimum safe distances for charges fixed to targets are specified in FM 5-250, table 6-3 (also see tables 9-1 and 9-2 of this regulation). In all cases, the greater distance in FM 5-250 will be used instead of the distances in AR 385-63.

(3) The range OIC/RSO will ensure that the range is set up properly before training—the range flag is displayed at designated location, road guards or barriers are in position, visual reconnaissance of the

area is conducted, and communications are established with range control on FM 38.30 or backbone (nontactical system).

(4) A briefing by the range OIC or RSO will be presented to the unit's chain of command and range control before conducting explosive operations. This briefing will include the information contained in the specific operation SOP and a detailed range safety briefing. The plan presented to range control is assumed to be approved by the range OIC/RSO's commander. Units should be prepared to adjust their plan with the advice of range control.

(5) Before use of any demolition range, preliminary demolition instruction must be given to ALL individuals participating in the training. Proper demolition techniques and safety will be emphasized.

h. During detonation of explosives.

(1) Uniform requirements are:

(a) All personnel will wear steel or Kevlar helmets and hearing protection on the range.

(b) It is recommended that all personnel involved with explosive training be equipped with flak jackets and safety goggles.

(2) Procedures for firing systems and caps are:

(a) Always consider the sensitivity of electrical firing systems to static electricity. This is especially hazardous during dry, dusty weather. Personnel should periodically ground themselves to remove static charge. This can be done by placing a hand on the ground before grasping bare, electric, firing wire or cap wires.

Note: The hand that is grounded should not be the hand used to grasp the wires.

(b) Lightning is a hazard to both electric and nonelectric blasting caps. A strike or a nearby miss is almost certain to initiate either type of system. If lightning strikes, even when far away from the blasting site, it may cause high, local, earth currents and shock waves that may initiate electrical firing circuits. Therefore, all demolition training operations must cease during or on approach of an electrical storm or severe dust storm. Caps must be moved away from personnel and other demolitions.

(c) Premature detonation of electric blasting caps by induced current from radio frequency signals is possible. Radio transmission is prohibited within 110 meters of any electric blasting cap or electrical firing system.

(3) General procedures are:

(a) Make visual checks. The firing wire will not be hooked up to the blasting machine or power source nor will the safety be removed from the fuze igniter until the range OIC or RSO have visually checked each shot and ensured that all personnel, except those involved in the operation, are in a safe area.

(b) An audible warning will be given before initiation of the charges. This should consist of giving the verbal warning, "Fire in the Hole," three times.

(c) When the range OIC has requested and received permission from range control to go hot, the range OIC will control and log every shot fired on the demolition range. A copy of the log will be provided to range control at training completion.

(d) Roads and trails will not be cratered or blown unless approved in advance by range control.

(e) Range control will be notified of the size and type of shot 10 minutes before any detonation.

(f) When the shot is complete, the RSO will go downrange to ensure all charges detonated. All other personnel will remain in the safe area until given an "All Clear" by the RSO.

(4) Misfires are the responsibility of the using unit. Follow standard procedures and this additional guidance:

(a) Notify range control of the misfire.

(b) Never abandon misfired explosives—they are the unit's responsibility.

(c) Never attempt to move or disarm a misfire.

(d) Only one person should approach a misfire charge and then only after an appropriate "cook off" time has elapsed (a minimum of 30 minutes for all nonelectrically primed charges).

(e) Notify range control when the misfire has been cleared.

(5) Above ground misfires—take appropriate action to blow it in place.

(6) Below ground misfires—these will be cleared by explosive ordnance disposal units only. Misfires requiring explosive ordnance disposal will be reported to range operations immediately.

i. After detonation of explosives—

(1) Provide a copy of the shot-by-shot log to range control.

(2) Return any equipment receipted from range control.

(3) The unit conducting training will give range control the following information:

(a) Times the range was opened and closed.

(b) Type of training.

(c) Firing system types and amount consumed.

(d) Type and amount of explosives consumed.

9-2. Demolitions limits

a. Demolitions fired on the range complex must be within the charge weight or item limits listed in the range SOP. Exceptions are considered on a case-by-case basis and must be applied for by 15 working days before the scheduled training. Requests for exception should be sent through the major subordinate command chain of command to the DPTSM, range control.

b. Maximum charge is defined as the total of any single, multiple, or combined detonation set off simultaneously or with less than a 30-second interval between charges. Maximum charge detonations must be separated by at least a 30-second interval, with no more than three allowed before a 15-minute interval is required.

c. The maximum charge listed for each demolition site will be strictly adhered to unless previously approved by the range facility manager. Limits listed are in pounds TNT.

d. Per AR 385-63, charges placed on steel will not exceed 2 pounds. They will be fired within an appropriate confining structure with an excavated pit at least 1-meter deep.

e. For demolition charges (C-4 and TNT), for purpose of this regulation, separate detonations must occur less than 30 seconds apart to be considered simultaneous. Demolition charges above the weight of individual blocks as issued (1/4 pound, 1 pound) will be assembled only for a specific training requirement, such as timber cutting. See paragraph 9-3.

f. Claymore mines are limited to ten in any simultaneous detonation (see FM 23-23). No other live, antipersonnel mines may be used in training. M15, M19, and M21 antitank mines will be armed and disarmed by combat engineer soldiers and destroyed with one block of C4 after 25 cycles of being armed and disarmed. The mines will be armed and disarmed by one soldier, supervised by one demolition-certified NCO, with all other soldiers and range personnel outside of the minimum safe distance as specified in the table 9-2 or in a missile-proof shelter. Tilt rods will not be used with the M21 antitank mine.

g. Demolition exercises affecting the use of special-use or restricted airspace that cannot be completed before the scheduled closing time (Monday through Friday) require a 3-hour notification for range control to grant additional firing time. This is the time required by the FAA to reroute air traffic. Weekends and holidays require a 24-hour notification for changes or extensions.

9-3. Special demolitions exercises

a. Any demolitions firing outside of an established demolition range or exceeding limits for a demolition range will be considered a special firing course and must be coordinated.

b. Requests for special demolition exercises will be forwarded through the chain of command to range control. Requests received less than 15 working days before planned firing will not be approved. If a special firing requires an environmental assessment, 5 weeks are required for processing per AR 200-2 and chapter 2 of this regulation.

c. Hearing-protection requirements for special demolitions exercises are per AR 385-63.

9-4. Improvised explosive devices

Any improvised explosive devise or unusual use of explosive/components will be fully described on the shot-by-shot description. The description will include a picture or sketch of the device and requires range-control approval.

9-5. Minimum missile-hazard distances

Minimum safe distances for personnel in the open are specified in tables 9-1 and 9-2. When charges are fixed to targets and not simply placed on the ground, use the farthest, safe distance specified. Note that the distances in table 9-2 depend on target configuration, not quantity of explosives.

9-6. Search after detonations

After each detonation, a search shall be made of the surrounding area for unexploded explosives. Items of material, such as lumps of explosives, may be picked up and prepared for the next detonation. This search will be conducted by the range OIC or RSO.

9-7. Fill in shot holes

All shot holes will be filled in at the end of each day. All material such as fuze igniters, burnt-time fuzes, etc., will be removed from the demolitions area before explosive operations continue.

9-8. Class V accountability

The range OIC or RSO will ensure strict accountability of all Class V items.

Table 9-1
Safe distances for personnel (near bare charges)

Explosive Weight (pounds)	Safe Distance	
	Feet	Meters
27 or less	985	300
30	1,021	311
35	1,073	327
40	1,123	342
45	1,168	356
50	1,211	369
60	1,287	392
70	1,355	413
80	1,414	431
90	1,474	449
100	1,528	465
125	1,641	500
150	1,752	534
175	1,838	560
200	1.920	585
225	1,999	609
250	2,067	630
275	2,136	651
300	2,199	670
325	2,258	688
350	2,313	705
375	2,369	722
400	2,418	737
425	2,461	750
500	2,625	800

Table 9-2
Safe distance for personnel (charges on target)

Serial	Charge Type	Target	Charge Size	Radius of Danger Area (m)	Remarks
A	B	C	D	E	F
1	Blasting caps, Primers, Detonating cord (in the open)	—	—	20	For service personnel under supervision. Applicable to all serials.
2	Cutting	*a.* Trees *b.* Concrete columns and beams *c.* Metal girders and plates, guns and so forth	*a.* Any *b.* Any *c.* Any	*a.* 300 *b.* 500 *c.* 1,000	*a.* — *b.* — *c.* Fragments may fly up to 1,000 meters in all directions.
3	Concussion		Any	1,000	If personnel are wearing helmets, the safe distance may be reduced to 500 meters. Consider the strong blast effect when considering buildings as potential blast shelters.
4	Cratering	Roads and airfields	*a.* Up to 2 kg *b.* Up to 30 kg *c.* Over 30 kg	*a.* 100 *b.* 300 *c.* 500	—
5	Mines	Piers, abutments, retaining walls	Any	500	—
6	Borehole	Rock, masonry, concrete, brick	Any	300	—
7	Breaching	Reinforced-concrete beams and slabs, mass-concrete walls and obstacles	Any	1,000	If personnel are wearing helmets, reduce the safe distance to 500 meters. Consider the strong blast effect when considering buildings as potential blast shelters.
8	Shaped	Concrete, steel	Any	1,000	When those charges are fired into the ground vertically, you may reduce the safe distance to 300 meters.
9	Bangalore torpedo	Wire obstacles	*a.* — *b.* —	*a.* All right angles to axis 1,000 meters. *b.* In the line of the axis, 200 meters for standing personnel and 100 meters for prone personnel.	
10	M180	Roads and airfields	1-15 kits	1,200	Fragments may fly up to 1,000 meters in all directions

Legend: kg—kilograms
Notes: 1. The air clearance required is the ground safety distance plus 500 meters above the explosive area.
2. The ship clearance is the same distance as for the ground safety distance.

Chapter 10
Airspace Control

10-1. General

Training airspace is a resource managed in coordination with ranges, nonfiring facilities, special-use airspace, and land. This chapter covers training in the airspace bounded by restricted airspace or controlled-firing areas.

10-2. Airspace use and facilities

Airspace use governed by this regulation encompasses range-control-managed sites and activities that require activation of the restricted airspace, or are of scope requiring publishing of a Notice to Airmen. These activities may include, but are not limited to the following:

a. Artillery and mortar firing.

b. Close-air support, joint-air-attack training, or aircraft reconnaissance.

c. Parachute drops (personnel and equipment or cargo).

d. Field-airstrip operations.

e. Assault airstrips and the adjoining, low-altitude, parachute-extraction system strips.

f. Helicopter-door-gunnery training.

g. Aviation unit field exercises from a ground base in a training area.

h. Radio-controlled munitions, aerial-target operations.

i. Small-arms and subcaliber-device ranges.

j. Aerial delivery of live or simulated ordnance.

k. Surface-to-surface and surface-to-air firing.

l. Laser weaponry and targeting devices.

m. Aircraft. Light-out operations between sunset and sunrise.

n. Demolitions.

10-3. Notice to Airmen

a. FAA regulations require Notices to Airmen when a hazard exists to the safe flow of air traffic.

b. Range control at each post is responsible for scheduling and activating restricted airspace through the FAA, Army airfields, and flight service stations.

c. Range control will advise Terminal Radar Approach Control and the Army airfields when the reservation’s restricted airspace is to be closed (hot) or open (cold). This is done on a daily basis with range control providing these agencies with the proposed schedule of airborne operations and range firing for the following 7-day period.

d. Changes to daily-restricted airspace requirements can be made with Terminal Radar Approach Control with a minimum notification of 3 hours, Monday through Friday. Changes for weekends and holidays require 24-hour notification.

e. Units canceling or delaying activities published by Notices to Airmen will inform range scheduling immediately.

10-4. Restricted airspace usage

a. "Controller" and "user" are special terms in the context of FAA restricted airspace. The controller of restricted airspace is the FAA. The user is USARAK, with day-to-day management by range control.

b. The restricted airspace is composed of subunits with a vertical limit established by the FAA for each subunit. The restricted airspace at FRA is identified as R2203 with Subunits A, B, and C. The vertical limits for R2203A is surface to 11,000 feet mean sea level, R2203B is surface to 11,000 feet mean sea level, and R2203C is surface to 5,000 feet mean sea level. At FWA, R2205 is surface to 20,000 feet mean sea level. DTA is R2202A and R2202B surface to 10,000 feet mean sea level, and R2202C is 10,000 feet mean sea level and above.

c. Restricted airspace is activated by the FAA on request from range operations, initiated by the using unit. Since the FAA activates restricted airspace on a real-time basis the DZ safety officer (DZSO) or combat control team will establish radio communication with range control 1 hour before the start of the block time scheduled for the event. Activation of restricted airspace is done only by range control. New events or changes to scheduled events must be submitted to range operations in time for notice to the FAA. Late requests may be disapproved if the area is already heavily scheduled.

d. When the restricted airspace is active, access for aircraft not involved in the training event will be controlled in the following manner:

(1) Due to weather or air-traffic congestion, it is sometimes necessary that Army airfields, Air Force bases, or Terminal Radar Approach Control utilize the restricted airspace for air traffic control. When this occurs, range control is contacted by those agencies requiring a stop fire for the above conditions. Upon notification, range control will contact the firing unit(s) and attempt to arrange for a stop fire of all live fires in the restricted area. The duration of the stop fire under normal conditions is generally less than 15 minutes.

(2) All activity in the restricted or controlled firing areas will be placed into an immediate "cease fire" for lifesaver missions and will not be resumed until clearance is given by range control.

(3) Aircraft will contact range control (FM 38.30) before entering the restricted airspace or other training lands to receive flight advisory or clearance. Range control is the only agency to grant clearance into the restricted airspace when it is active. Eielson Air Force Base is the contact point when restricted areas R2202, R2205, or R2211 are scheduled by range control for use by United States Air Force. When this occurs, the airspace is under the control of the United States Air Force.

(4) Aircraft will maintain constant radio communications with range control when operating in and around the restricted airspace.

(5) Aircraft will cease operations and depart the restricted airspace immediately upon the request of range control.

(6) Aircraft will report when the mission is completed and it has departed the restricted area.

10-5. Coordination areas, military training routes, and military operations areas

a. Military operation areas and military training routes are airspaces that are activated for the use of high-speed (excess of 250 knots), low-altitude aircraft. Coordination areas are the portions of military operation areas and military training routes that overlay selected USARAK training lands. Each range manager will identify these areas when scheduling training lands and advise the using unit of use priorities.

b. Coordination areas are scheduled like restricted areas and serve the purpose of separating low- and high-performance aircraft and training activities.

10-6. Violations

Aircraft that violate the restricted airspace will be reported to range control immediately. Units that observe the violation will make every attempt to get the identification (tail) number of the aircraft, color, markings, and the direction it was flying.

10-7. Hazard reports

a. DA Form 2696-R (Operational Hazard Report) will be submitted per appropriate ARs and Air Force protocol. The aviation safety officer and the range facility managers are service points of contact for hazard reports.

b. Army ground personnel observing a hazard may submit a DA Form 2696-R directly to the aviation safety officer or may report details of the incident to range operations.

c. Air Force units will submit Air Force Form 651 (Hazardous Air Traffic Report (HATR)) per instructions.

d. Provide the appropriate range control a copy of any DA Form 2696-R or Air Force Form 651 that involved Army airspace.

10-8. High-performance aircraft operations and ordnance

a. United States Air Force high-performance aircraft are routinely scheduled, per chapter 3, into restricted airspace for unit training, close-air support, joint-air-attack training, and reconnaissance flights. These activities are scheduled by block times allowing reasonable periods for the training events.

b. Check fires imposed for high-performance aircraft activities will be lifted when the aircraft clears the restricted area.

c. Block times must be observed. If other scheduled training prevents time extensions, mission aircraft must be turned away.

(1) Close-air-support activities must be controlled by a terminal-attack or a forward-air controller. The terminal-attack controller will establish contact with range operations (FM 38.30) at least 1 hour before the scheduled time on target and must monitor range operations continuously until the mission is complete. Range operations will call the terminal-attack controller for unscheduled periodic radio checks.

(2) Exercises involving aircraft and indirect fire must be coordinated beforehand and controlled by the ground safety officer located at the controlling, tactical operations center throughout the duration of the exercise.

10-9. Drop-zone operations

a. Scheduling. Parachute DZs are training facilities scheduled separately from the surrounding training areas. Parachute drops are scheduled by block times allowing a reasonable period for events, plus time for equipment and personnel recovery.

b. Medical support. Medical support must be on site for all personnel drops.

c. Drop zone survey. A formal DZ survey must be on file at range control before any DZ can be used for personnel drops.

d. Providing time on target. Units provide time on targets to range control 72 hours before the date scheduled for use of a DZ.

e. Hazards. The restricted airspace will be activated for night jumps by unilluminated paratroopers. Personnel jumping between sunset and sunrise outside of a restricted area must be equipped with a light. DZs will not be receipted to units unless the approved reservation contract is in the DZSO's possession.

f. Procedures.

(1) DZs will be manned and operated per current regulations and doctrinal publications of the service conducting the jump. Army personnel involved in multiservice jumps will comply with ARs. Nonmilitary jumps will be conducted per United States Parachute Association guidelines and rules. DZs must be signed for 24 hours before scheduled training by the DZSO/DZ safety NCO or combat control team. During night personnel drops, a member of the DZSO party must use night vision goggles to track jumpers.

(2) DZs will be opened and closed on the range operations net (FM 38.30) only by the unit or agency scheduled. Back-up communications are required. When an Army DZSO is present, he/she will request opening; during United States Air Force-only drops, the combat control team will open. Once a DZ is opened, the range operations net must be monitored at all times by the DZSO or the combat control team.

(a) For routine proficiency operations of five or less C-130 aircraft (three C-141s), the DZSO must be SGT or above, or SSG or above for tactical, airborne operations, be jumpmaster qualified and current to perform personnel drops, have observed the operation of a fully qualified DZSO/DZ safety NCO, performed duties as an assistant DZSO at least once before assuming those duties for the first time, and have received hands-on training in the use of an anemometer to determine wind readings.

(b) For operations of more than five C-130s or three C-141s, the DZSO must be an SFC or above, be jumpmaster qualified and current, have observed the operation of a fully qualified DZSO/DZ safety NCO, have performed duties as an assistant DZSO at least once before assuming those duties for the first time, and received hands-on training in the use of an anemometer to determine wind readings.

(3) Range operations may grant additional time on a case-by-case basis, but if other scheduled training prevents an extension, mission aircraft will be turned away.

(4) The DZSO or the combat control team will give range operations 30-minute and 10-minute warnings. At the 30-minute warning, range operations will alert the firing units of the upcoming check fire. The use of a DZ may require check fires of all indirect firing points. At the 10-minute warning, range control will initiate and confirm the required check fires.

(5) Range-control personnel will not relay drop information between the ground party and aircraft conducting paradrop operations. Units controlling DZ operations must ensure that they have on-site, reliable, communication equipment for contacting and passing DZ information to participating aircraft.

(6) Complete a USARAK Form 137 (Airborne Operation Flash Report) within 60 minutes of the last pass for all personnel jumps (see fig 10-1). The DZSO/combat control team will ensure the information is forwarded in a timely and accurate manner to range control. Range control will make the appropriate report to the command operations center.

(7) Lift check fires when the DZSO or combat control team informs range operations that mission aircraft have departed the restricted area and all jumpers who left the aircraft are accounted for on the ground.

g. Shared use by ground and air units.

(1) DZs are not part of the training areas in which they are located and are off limits to ground units unless scheduled for ground training. Hot DZs are off limits to all personnel and vehicles not authorized by the DZSO or the combat control team. Construction of tactical emplacements and barriers on DZs must be approved by range control and cleared from DZs immediately after training is completed.

(2) When the DZs and surrounding training areas are scheduled for simultaneous air and ground use by different units during paradrop operations, the ground unit will not bivouac or conduct operations within the established buffer zones for the DZ.

h. Malfunction-noncommissioned officer.

(1) Must be a qualified parachute rigger from the unit normally providing air items.

(2) For specialized operations using multiple DZs where it is impractical to have a parachute rigger on each DZ, the DZSO or assistant DZSO may perform the malfunction-NCO duties, provided they have received training from a qualified, current parachute rigger on malfunction duties. This will only be done as a last resort, after every effort has been made to obtain a parachute rigger from the Directorate Of Logistics, Aerial Delivery Branch, at FRA, at 384-2826/2834 or the parachute rigger assigned to the Cold Region Test Center, DTA, at 873-4642/4804.

(3) There must be a parachute rigger present for personnel parachute operations and aerial-delivery exercises. During night personnel drops, night vision goggles will be used to track jumpers.

10-10. Pilot notification requirements during paradrop operations

a. Pilots of aircraft for paradrop operations in controlled airspace must establish communications by radio with the nearest FAA air traffic control facility or FAA flight service station a minimum of 5 minutes before a paradrop operation to—

(1) Receive information in the aircraft about air traffic in the vicinity of the paradrop activity.

(2) Notify air traffic control of the type of drop (personnel or cargo) and the drop altitude.

(3) Notify air traffic control when the paradrop operation begins (first chute deployed) and when it is completed (last chute on the ground).

b. When paradrop operations are conducted in a restricted area that has been designated as “hot,” the above requirements do not apply.

10-11. Night-vision-goggle training

DZs and field landing zones are scheduled for night-vision-goggle or other aviation, night-operations training. Ground unit commanders not scheduled for DZs or field-landing zones must keep clear at night and may not interfere with aviation operations, especially with pyrotechnics or vehicle light.

a. Restricted airspace cannot be activated solely for lighted, night-vision-goggle training.

b. Restricted airspace must be activated to 1,500 feet above ground level for lights out (black out), night-vision-goggle training.

c. Units requesting to conduct night-vision-goggle training must ensure the type of training (i.e., lighted/ lights out) is reflected on the reservation contract.

AIRBORNE OPERATION FLASH REPORT INSTRUCTIONS

1. If other than on-post locations, ZULU time will be used and location will be specified with six-digit coordinates at center mass.

2. All items must be completed. Use the word "NONE" or "N/A" for items not applicable. All information must be obtained. Reports are to be called in by units within one hour following the scheduled airborne operation.

3. In addition to the provided information, the following will be obtained in the event of malfunctions an/or entanglements.

MALFUNCTIONS a. Type of malfunction b. Was reserve activated c. Individual's landing status	ENTANGLEMENT a. Low or high entanlgement b. Was reserve activated c. Individual's landing status

1. UNIT DESIGNATION: 210 RSQ	2. TYPE/NUMBER AIRCRAFT: 3XC130 1XH50	3. DATE/TIME OF DROP: 2 Feb 01 2135
4. TOTAL TROOP/TYPE/CHUTE JUMPED: 7 MCIC-MC	5. DZ CONTROL: a. CTT b. (DZST) c. TALO	6. DROP ZONE: MMDZ
7. WINDS AT SURFACE: Calm	8. DROP ALT:	

9. TOTAL NUMBER OF CONTAINERS/PLATFORMS DROPPED:

a. HEAVY DROP	b. LAPES	c. CDS	d. OTHER
2		2	

10. AF DROP SCORES (DZST CONTROL ONLY): DIRECTION (Use clock): N/A DISTANCE (Meters): N/A	11. NUMBER OF TROOPS EVACUATED FROM FLA: N/A HELO: N/A

12. REMARKS (ABORTS, REFUSALS, JUMPERS RETURNED TO AIRFIELD, UNUSUAL INCIDENTS

SAMPLE

13. NAME, RANK, AND DUTY TITLE OF INDIVIDUAL SUBMITTING REPORT: Weaver, Daryl LTC DZSO	14. DATE/TIME REPORT SUBMITTED: 2 Feb 01 2212
15. REPORT RECEIVED BY: Houston, Larry SFC RTO	16. (SUBMITTED TELEPHONICALLY) ( ) YES (x) NO

USARAK Form 137, 1 Apr 94 Previous edition is obsolete.

Figure 10-1. United States Army Alaska Form 137

MALFUNCTIONS/ENTANGLEMENTS (Specify high/low entanglement)			
NAME	RANK	SSN	UNIT
DESCRIBE MISHAP:			
DESCRIBE ACTION TAKEN:			
NAME	RANK	SSN	UNIT
DESCRIBE MISHAP:			
DESCRIBE ACTION TAKEN:			
NAME	RANK	SSN	UNIT
DESCRIBE MISHAP:			
DESCRIBE ACTION TAKEN:			

PERSONNEL EVACUATION						
NAME	RANK	SSN	UNIT			
TYPE OF INJURY:						
CAUSE OF INJURY (Specify)	( ) MALFUNCTION	( ) ENTANGLEMENT	( ) PLF			
( ) MISSED DZ	( ) DZ OBSTACLE	( ) OTHER METHOD OF EVACUATION (Specify)	( ) FLA	( ) HELO		
NAME	RANK	SSN	UNIT			
TYPE OF INJURY:						
CAUSE OF INJURY (Specify)	( ) MALFUNCTION	( ) ENTANGLEMENT	( ) PLF			
( ) MISSED DZ	( ) DZ OBSTACLE	( ) OTHER METHOD OF EVACUATION (Specify)	( ) FLA	( ) HELO		
NAME	RANK	SSN	UNIT			
TYPE OF INJURY:						
CAUSE OF INJURY (Specify)	( ) MALFUNCTION	( ) ENTANGLEMENT	( ) PLF			
( ) MISSED DZ	( ) DZ OBSTACLE	( ) OTHER METHOD OF EVACUATION (Specify)	( ) FLA	( ) HELO		

Figure 10-1. United States Army Alaska Form 137—Continued

Chapter 11
Laser Training

11-1. General

Routine laser operations can be conducted at FWA and DTA and are confined to the firing points and target areas listed in paragraph 11-3. Request for lasing in other modes or from other locations must be processed as a special firing course per chapter 8. Because of the limited, down-range distance and backstops, routine laser operations cannot be conducted at FRA.

11-2. Scheduling

Laser firing points must be scheduled per chapter 3.

11-3. Laser range areas

Laser training is directed into the designated impact areas. At FWA, Stuart Creek Impact Area, in R2205, is the only impact area that can be used for routine laser training. At DTA, the individual laser range SOP procedures list limits and device-control requirements. Lasing is authorized per the range SOP for the AN/GVS-5 range finder, the AN/PAQ-1 LTD, the AN/TVQ-2 GLLD, and the tank laser range finder. Other laser devices may be used only after coordination with range operations. Laser training with any device inside the cantonment area is forbidden. Observation posts and ranges used for laser training must be signed for at range operations.

11-4. Warning signs

Warning signs are posted for laser activity.

11-5. Laser operations

a. All laser training operations must be under the direction of a command, safety-certified laser range OIC and RSO. (See sample memorandum at fig 7-1.) Both must be familiar with the operational and safety features of the equipment in use, as well as with AR 385-63, and must be on site at all times during laser operations. The unit will provide range control with a list of individuals certified to perform as range OIC/RSO for laser operations.

b. The range OIC and RSO must—

(1) Receipt for the observation post or range and the laser firing point SOP packet from range operations.

(2) Conduct a safety briefing. The contents for the briefing are in AR 385-63. Laser devices must be treated as loaded weapons.

(3) Ensure that the personnel to be trained have positive identification of the laser-range limits, both horizontal and vertical, and that lasing remains within those limits.

(4) Ensure that at least one member of the party watches downrange for vehicles or aircraft beyond the target area. WARNING: BINOCULARS MUST NOT BE USED FOR THIS SURVEILLANCE AND THE LOOKOUT MUST NOT LOOK DIRECTLY AT THE TARGET DURING LASING.

(5) Ensure laser devices are activated only at the firing point after being properly mounted. In event of loss of control of the laser, such as an activated device being dropped or knocked over, the RSO will call an immediate check fire and inform range operations. Personnel who may have been exposed to a laser beam require medical examination.

(6) Routine laser training does not require protective eye wear. Ensure protective eye wear is available for use by the range OIC, RSO, downrange observer, and visitors if required by a special operating condition.

11-6. Restrictions

a. Laser-device batteries or other power sources will not be connected until the range OIC and RSO are ready to commence training. Powered lasers must be directed into the authorized impact area.

b. Unless the range OIC has coordinated with range control to conduct designating, the AN/TVQ-1, ground-laser location designator will be used in the range finding mode only. To ensure the ground laser location designator is not inadvertently switched to "Designate" and to limit the downrange hazard, any ground laser location designator used must always have the attenuator filter assembly (glass filter and switch cover) installed during training.

c. The AN/PAQ-1 laser target designator will be used on laser ranges only when tactical aircraft are available for concurrent, ground-air, target designation training.

Chapter 12
Training Areas

12-1. General

a. Lands available for tactical exercises and field training outside the cantonment areas are divided into training areas and are identified by numbers on the post 1:50,000 special map. Access for any purpose is forbidden without clearance from range operations.

b. Scheduled training areas are announced in the daily range schedule published by range control. Training areas not scheduled for training are released for authorized nonmilitary use.

c. For information on medical support of field exercises and communication requirements in training areas, see chapter 1.

d. Post perimeter fences and gates will not be cut or breached by units in training.

e. The railroad right-of-way on FRA extends 100 feet from centerline to either side of the tracks. This right-of-way is off limits to all personnel (except for the two authorized crossing sites at Loop Road (UC547976) and Artillery Road (UD602013)) unless cleared through the Alaska Railroad by range control.

(1) The railroad tracks and right-of-way are not to be considered a part of the surrounding training areas and commanders will plan their training to avoid encroachment in this area. Commanders will include a warning about staying clear of the railroad right-of-way in the safety portion of all operation orders before training in the vicinity of the railroad tracks.

(2) Commanders may request permission from range control to cross the tracks on foot at other than the designated crossings. Commanders requesting such permission will do so on a memorandum. Commanders will specify the intended crossing site, the number of personnel, and the crossing date and time. Range control will then inform the Alaska Railroad dispatcher of the intended crossing. These procedures do not apply to vehicles, which are only authorized to cross at the sites specified in paragraph e above. Leaders responsible for dismounted, railroad-track crossings must bear in mind that approaching trains are often not seen nor heard until they are too close to avoid.

(3) Road guards will be used for convoys at crossing sites. The road guards will watch for approaching trains and stop convoy vehicles, not trains, when a train is approaching. Road guards will be briefed on the importance of stopping vehicles at least 20 feet from the tracks. They, themselves, will not get within 20 feet of the tracks when a train is passing because of the possibility of flying rocks or shifted loads causing a hazard out to 20 feet.

(4) If an emergency situation arises concerning the Alaska Railroad, initiate the following action:

(a) Contact range control, which will call the railroad chief dispatcher (265-2434). Give a brief description of the incident and location. Range control will also notify the command operations center.

(b) Send a person 1 and 1/2 miles in each direction from the incident on the tracks and direct those persons to signal any vehicle, i.e., engine, high rail, gas car, etc., to stop. The daylight signal for stopping railroad vehicles is to wave the arm at waist level. The night signal is a red-light half circle.

(5) The minimum clearance for personnel walking near the railroad is 20 feet in each direction from center line and that is only with flagging protection provided by Alaska-Railroad personnel.

(a) Permission from the Alaska Railroad, through range control, is required for personnel or vehicles to enter the 100-foot right-of-way anywhere along the track at other than the authorized crossing sites.

(b) Permission to enter the right-of-way may be granted up to the minimum clearance distance of 20 feet. If there is a requirement to use the tracks or trestle due to a training scenario, special permission must be granted, which will include flagging protection, provided at a cost, from Alaska-Railroad personnel.

12-2. Cantonment areas

Cantonment areas are under the control of the post commander who may assign assembly areas to units. Use of the parade fields is controlled by the DPTSM, Plans and Operations Division.

12-3. Scheduling

a. Training area scheduling is conducted per chapter 3. An approved copy of the reservation contract must be on site.

b. Units need not schedule a training area for the purpose of passing through on an established range road enroute to another assigned training area or facility.

c. All range gates will either be locked or guarded when unlocked. *It is the responsibility of the unit using range gates to lock these gates behind them*. Units desiring free access to range gates while conducting tests or field exercises are authorized to leave appropriate gates unlocked, provided guards are posted with instructions to prohibit the entrance of unauthorized vehicles or personnel. Keys to range gates will be obtained from range control.

d. Occupation of an impact area is prohibited. Personnel desiring access to an impact area for emplacement of targets or other activities will request permission from the range facility manager.

e. Upon completion of an exercise requiring the use of training areas, the unit commander or his/her designated representative will advise range control of the number of personnel trained. This information will be included by range control in the daily training terrain record.

12-4. Training facilities in training areas

a. Many training areas contain training facilities, such as DZs, artillery firing points, and base camps as listed in appendix B. The scheduling of a training area never automatically includes the training facilities therein, and a unit that is granted access to a training area must consider all training facilities off limits unless they are scheduled in conjunction with the training area. Certain training facilities, such as DZs, firing points, landing zones, and ranges constitute a hazard when in use and must be avoided. Units using training areas must check the weekly range bulletin, daily range schedule, or call range operations to determine what training is being conducted on a given day. Road guard requirements around training facilities in training areas must be obeyed. Ground units will not interfere with night aviation operations. Coordination is required for concurrent ground and air use of training areas, landing zones, or DZs.

b. Procedures for requesting off-post training areas are in USARAK Regulations 350-1 and this regulation.

(1) Requests for maneuver permits must be submitted a minimum of 110 days before the date of the training event.

(2) Requests to use Knik and Spencer glaciers will be forwarded by memorandum to the DPTSM, Training/Range Division.

(3) Request for use of Black Rapids training site should be forwarded by memorandum to the commandant of the Northern Warfare Training Center.

c. Training activities on nonmilitary lands will utilize applicable provisions in this regulation as guidelines for conduct. Off-post land use requires a permit as described in this regulation, including the routinely used areas described in USARAK Regulation 350-1. The requirements are normally more stringent than the requirements for conduct of military activities on military land.

d. Range control has the authority and responsibility to inspect off-post, training activities. Units will coordinate with range control for inspections. An after-action report may be required from range control or DPTSM.

12-5. Foot marches

a. Foot marches are conducted routinely on all posts and must be scheduled with range control. Units will submit an overlay reflecting a route of march with the request. Foot marches will be confined to road shoulders. Lead and trail personnel must wear reflective vests. All vehicles must slow to 10 miles per hour or less when meeting or passing foot marches.

b. Night foot marches require lead and trail personnel with flashlights and reflective vests to warn oncoming or overtaking traffic. Oncoming vehicles will slow to 10 miles per hour or less and switch to blackout, marker, parking lights, or will pull off the road at the nearest safe exit, extinguish all but marker or parking lights and await clearance from the trail personnel.

c. Trail vehicles for day and night marches will be used for all road marches over 2 miles outside of the cantonment area. Vehicles will move by “bounds” to points along the march route. A combat lifesaver with an aid bag will accompany the road march.

d. The OIC/NCOIC will contact range control at the start and end of the road march.

12-6. Vehicle marches and convoys

a. Vehicular operations and marches are routinely conducted to gain access to scheduled ranges, training areas, or training facilities. Units are not required to schedule training areas to transit on established range roads enroute to a training facility or another training area. However, units conducting vehicular convoy or march training must schedule the event through range control per chapter 3 and provide an overlay reflecting the route of march.

b. Commanders are responsible for ensuring vehicle and equipment operators are properly trained in the use of night-vision devices and operation of vehicles under blackout drive conditions, including sustainment training per AR 600-55. When night-vision devises are used, the training in AR 600-55, chapter 8 and appendix I is the standard.

c. Individual vehicles and convoys meeting or passing soldiers on the road must slow to 10 miles per hour or less.

d. Night vehicular marches are conducted as follows:

(1) Blackout road marches will not be conducted in cantonment areas or on public routes.

(2) During blackout road marches, a pilot vehicle and trail vehicle will be designated. The pilot vehicle will flash its headlights to warn oncoming night-vision goggle or service-drive vehicles. Oncoming vehicles will slow to 10 miles per hour or less and switch to blackout, marker, or parking lights or will pull off the road at the nearest safe exit, extinguish all but marker or parking lights and await clearance from the trail vehicle. Trail vehicles must be illuminated with hazard flashers or a rotating, amber light.

(3) Trainers conducting night-vision goggle night marches must ensure that safety briefings include a review of night-vision-goggle limitations (especially the restriction of peripheral vision), limits in seeing through obscurants (smoke, fog, dust), the need for preventive maintenance and careful handling, the risk of overdriving field of view, and temporary loss of night vision.

e. Wheeled vehicle convoys, day or night, must perform the following actions at road crossings:

(1) Stop and dismount guards and ground guides as indicated below.

(a) Place guards not less than 100 meters to either side of the crossing site on the paved road to warn oncoming traffic. Guards must wear reflective vests and, if after the hours of darkness or under conditions of reduced visibility, have military flashlights with white cones.

(b) Place a ground guide at the crossing site with clear view in both directions to act as convoy traffic controller. This guide will slow or stop the crossing military vehicles to cause them to yield right-of-way to oncoming traffic.

(2) Use service-drive lights if crossing under conditions of reduced visibility, during hours of darkness, or after dusk.

(3) Cross vehicles, one by one, under the direction of the convoy traffic controller.

(4) After road crossing is completed, turn off headlights (if appropriate), recover guards, and continue the march.

12-7. Speed limits

a. The vehicle speed limit on all paved or unpaved range roads is 25 miles per hour unless otherwise marked. Many roads are heavily rutted and potholed and may require very slow driving to ensure safety. Vehicles overtaking or meeting marching troops will slow to 10 miles per hour. Motorized units conducting high-speed training must do a slow drive through of their training areas to check for and warn other authorized users, military or civilian, before going full speed.

b. When operating under blackout-drive conditions, all vehicles will maintain a speed limit of 5 to 10 miles per hour (8 to 16 kilometers per hour). These speed limits are mandatory for all road types and conditions, including both convoy or single-vehicle operations.

12-8. Railroad-crossing sites

Only approved railroad-crossing sites will be used to gain access to a training site or facility. See paragraph 12-1e.

12-9. Light line

a. Blackout-drive roads are closed to traffic other than those using blackout drive from 21 June through 21 September (2000 to 0600) and from 22 September through 20 June (from 1 hour after sunset to 1 hour before sunrise). This is effective Monday through Thursday, except holidays. On Friday, and the day preceding a holiday, the use of blackout drive will end at 2400.

b. Blackout-drive marches on holidays or weekends must be scheduled with range control at least 6 weeks in advance. The request will include the submission of an overlay outlining route of march, start point, release point, and inclusive march times.

c. Those units requiring blackout-drive training must also ensure appropriate intersections are manned by road guards equipped with flashlights or lanterns. Road guards will detour traffic not in blackout drive.

Units wishing to conduct blackout-drive training not in conjunction with regularly scheduled training must schedule this as they would any other use of a training area.

(1) On FRA, all roads south of Ship Creek and north of grid line 98, except for Poleline Road and the road to Otter Lake Lodge, are blackout-drive areas. Poleline Road intersects with Artillery Road at UC613016. As vehicles enter Artillery Road, they must switch to blackout drive.

(2) On FWA, all roads in the YTA and all areas south of the Tanana River are blackout-drive areas.

(3) On DTA, all blackout-drive marches must be approved by range control 48 hours before the activity.

(4) The lead and trail vehicle will have communications capability with each other in case of emergency.

(5) Vehicles will not move in any bivouac area without dismounted guides.

(6) Blackout drive is not required when responding to an emergency situation.

12-10. Roads

Numbered, lettered, and improved roads will not be cratered, trenched, or booby trapped. Units may use secondary roads and trails to train up for this requirement and simulate on major road with removable barricades. These secondary roads may not be restricted from public use without prior notice given in the newspaper or radio. An overlay will be submitted to range control to show the secondary roads and trails that will be used to do the training.

12-11. Corridor between Fort Wainwright, Alaska and the Donnelly Training Area

a. Units can conduct overland travel between FWA and DTA. Trail use can be scheduled any time between 1 November and 1 April. The end points are in the vicinity of grid 9734 on FWA and grid 1114 on DTA. There is no established trail. The first unit to use the overland route will establish a trail and subsequent units are expected to follow it. The adjacent areas are private land and must be avoided.

b. Compliance with the stipulations listed below is mandatory:

(1) Units using the trail will schedule travel with either FWA or DTA range control. Report the number of troops, type of vehicles, time on the trail, and incidents to the scheduling range control as soon as contact can be established.

(2) No bivouacs or tactical maneuvers are permitted between FWA and DTA.

(3) Avoid tree and brush cutting, especially within 300 feet of a stream. If minor leveling of the route your unit selects is required, use ice and snow. Do not bulldoze or use the frozen soil or tundra vegetation for leveling.

(4) No trash disposal or campfires are permitted.

(5) Contain any petroleum, oil, and lubricant spills and report them to range control immediately.

(6) A detailed, expanded list of permit provisions can be obtained from range control.

12-12. Construction

Units wishing to build permanent or semipermanent barriers, emplacements, or facilities in training areas must have clearance from range control. Long-term maintenance must be addressed.

12-13. Pyrotechnics and fires

a. Training OICs must be alert to forest or range fire hazards associated with burning-type pyrotechnics. Fire hazard levels and restrictions are in paragraph 4-2.

b. Forest or range fires will be reported to range operations immediately (FM 38.30). Troops on the scene will attempt to control fires, as long as personnel are not endangered.

12-14. Trespassers

Commanders and trainers must notify range operations of any observed unlawful or suspect act, such as poaching, wood cutting, dumping, dirt bike or 4-wheel drive vehicles, personnel discharging firearms, abandoned vehicles, or remains of vehicles. Range operations will inform the military police desk.

12-15. Police

Commanders scheduling training areas for field training exercises must also schedule clean-up time to ensure that holes are filled, obstacles removed, and trash policed.

a. Police of training areas, firing points, observation posts, and facilities will be accomplished per the following guidelines:

(1) Police training areas or facilities during and after use. Even if it is not your litter, pick it up because it can give away your position.

(2) All cartridges, tubes, containers, packing material, and all other material introduced into the environment in conjunction with training activities will be removed to the maximum practical extent.

(3) Remove all barbed, commo, concertina, and trip wire and properly dispose of it according to post procedures.

b. Garbage and trash accumulated by units occupying ranges/training areas will not be buried at the site, but will be disposed of in the following manner:

(1) On-post units will utilize their normal on post facilities for waste disposal.

(2) Off-post units will contact the DPW for information on trash disposal.

c. Upon training completion, the OIC/NCOIC will coordinate with range control for a clearance inspection. It is advised that a standby detail be available to make on-the-spot corrections for deficiencies noted during inspection.

12-16. Use reporting

Units or installation agencies authorized the use of a training area must report use to range operations as follows:

a. The training OIC/NCOIC must check in with range control before unit deployment to training areas. For battalion or higher level units, this may be a representative of the operations and training officer.

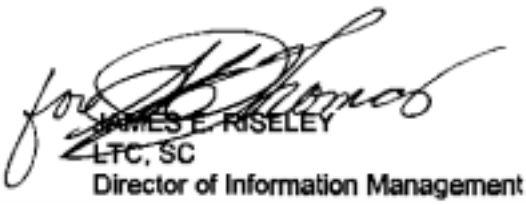
b. Subsequent, daily-use reports are required at 0600 and 1800 hours each day. The report may be in person, by telephone, or by radio at FM 38.30.

c. Range operations will note the time of check in or subsequent call, the name of unit representative, and the number of personnel. The range operations shift NCO will give his/her initials to the unit. Information on fire hazards or weather warnings will be provided by range operations. Range control will not pass routine administrative messages from garrison to units in the field.

d. Upon training completion, the OIC/NCOIC will coordinate with range control for a clearance inspection. It is advised that a standby detail be available to make on-the-spot corrections for deficiencies noted during the inspection.

FOR THE COMMANDER:

OFFICIAL:



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Appendix A
References

AR 75-1..... (Malfunctions Involving Ammunitions and Explosives) is cited in paragraph 5-3g.

AR 95-2..... (Air Traffic Control, Airspace, Airfields, Flight Activities and Navigation Aids) is cited in paragraph C-3a.

AR 200-1..... (Environmental Protection and Enhancement) is cited in paragraphs 2-6a and 5-1d.

AR 200-2..... (Environmental Effects of Army Actions) is cited in paragraph 2-3c and paragraphs 2-6a, 8-4d, and 9-3b.

AR 200-3..... (National Resources – Land, Forest, and Wildlife Management) is cited in paragraphs 2-6a and 2-9k.

AR 210-20..... (Master Planning for Army Installations) is cited in paragraph 5-1d.

AR 210-21..... (Army Ranges and Training Land Program) is cited in paragraph 5-1d.

AR 385-62..... (Regulations for Firing Guided Missiles and Heavy Rockets for Training, Target practice and Combat) is cited in paragraph 1-1.

AR 385-63..... (Policies and Procedures for Firing Ammunition for Training, Target Practice and Combat) is cited in paragraphs 1-1, 1-14, and 1-18a(1), figure 1-1 and paragraphs 4-1a, 4-3, 4-4a, 4-7e, 5-1d, 5-9e, 6-6, 7-1b, and paragraphs 7-2a and 7-5, figure 7-1, paragraphs 8-1, 8-6b, 9-1, 9-2d, and paragraphs 9-3c, 11-5, C-3, E-1, and E-2b.

AR 385-64..... (U.S. Army Explosives Safety Program) is cited in paragraph 9-1.

AR 600-55..... (The Army Driver and Operator Standardization Program). Cited in paragraph 12-6b.

FM 3-50 ..... (Smoke Operations) is cited in paragraph 4-7a.

FM 5-250 ..... (Explosives and Demolitions) is cited in paragraph 9-1.

FM 6-50 ..... (Tactics, Techniques and Procedures for the Field Artillery Cannon Battery) is cited in paragraph 1-18e.

FM 20-32 ..... (Mine/Countermine Operations) is cited in paragraph 9-1b.

FM 23-23 ..... (Antipersonnel Mine M18A1 and M18A1 (Claymore)) is cited in paragraphs 9-2f and E-2b.

FM 23-90 ..... (Mortars) is cited in paragraph 1-18e.

FM 25-101 ..... (Battle Focused Training) is cited in paragraph 1-6.

FM 3-23.30 ..... (Grenades and Pyrotechnic Signals) is cited in paragraphs 4-3c and 8-6b, and table B-5.

USARAK Regulation 350-2

FM 100-14 ..... (Risk Management) is cited in paragraph 1-6.

FM 101-5 ..... (Staff Organization and Operations) is cited in paragraph 1-6.

Public Law 87-327 ..... Cited in paragraph 2-9k.

TM 9-1370-207-10 ..... (Operator's Manual-Pyrotechnic Simulators) is cited in paragraph 4-5c.

TM 43-0001-28 ..... (Army Ammunition Data Sheets for Artillery Ammunition: Guns, Howitzers, Mortars, Recoilless Rifles, Grenade Launchers and Artillery Fuzes) is cited in paragraph 5-9j.

USARAK Regulation 200-4..... (Hazardous Waste, Used Oil, and Hazardous Materials Management) is cited in paragraphs 2-6b(4) and 2-9l.

USARAK Regulation 350-1..... (United States Army Alaska Training Directive) is cited in paragraph 1-6 and paragraph 12-4.

USARAK Regulation 405-2..... (Off-Post Maneuver Permits) is cited in paragraph 3-6i.

Section II
Referenced Publications

A referenced publication is merely a source of further information. The user does not have to read it to understand this regulation.

AR 40-5..... (Preventive Medicine).

AR 95-1..... (Flight Regulations).

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

AR 200-4..... (Cultural Resources Management).

AR 200-5..... (Pest Management).

AR 385-10..... (The Army Safety Program).

AR 385-16..... (System Safety Engineering and Management).

AR 385-40..... (Accident Reporting and Records).

AR 385-61..... (The Army Chemical Agents Safety Program).

AR 420-49..... (Utility Services).

Department of Defense
Directive 4700.1..... (Natural Resources Conservation and Management).

FM 3-23.25 ..... (Light Antiarmy Weapons).

FM 4-30.13 ..... (Ammunition Handbook: Tactics, Techniques, and Procedures for Munitions Handlers).

FM 6-20 ..... (Fire Support in the Airland Battle).

FM 6-20-2 ..... (Tactics, Techniques, and Procedures for Corps Artillery, Division Artillery, and Field Artillery Brigade Headquarters).

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

FM 9-15 ..... (Explosive Ordnance Disposal Service and Unit Operations).

FM 21-20 ..... (Physical Fitness Training).

FM 23-9 ..... (M16A1 Rifle and M16A2 Rifle Marksmanship).

FM 23-11 ..... (90mm Recoilless Rifle, M67).

FM 23-14 ..... (M249 Light Machine Gun in the Automatic Rifle Role).

FM 23-31 ..... (40mm Grenade Launcher, M203).

FM 23-35 ..... (Combat Training with Pistols and Revolvers).

FM 23-65 ..... (Browning, Machinegun, Caliber. 50 HB, M2).

FM 23-67 ..... (Machinegun, 7.62mm, M60).

FM 23-91 ..... (Mortar Gunnery).

Folio of Standard Drawings,
EP 1110-1-6..... (Outdoor Sports Facilities).

TC 23-2..... (66mm Rocket Launcher M202A1).

TC 24-20..... (Tactical Wire and Cable Techniques).

+TC 25-8..... (Training Ranges).

TM 9-1300-200 ..... (Ammunition, General).

USARAK Regulation 190-1..... (Physical Security Program).

USARAK Regulation 190-13..... (Enforcement of Hunting, Trapping, and Fishing on Army Lands in Alaska).

USARAK Regulation 385-1..... (United States Army Alaska Safety Program).

USARAK Regulation 420-11..... (Fire and Emergency Services).

Section III
Prescribed Forms

USARAK Form 8 ..... (Range Firing Record) is cited in paragraphs 4-3, 5-3b, and 6-6.

USARAK Regulation 350-2

USARAK Form 279 ..... (Range or Training Area Request) is cited in paragraphs 3-3 and 3-7 and figure 3-1.

Section IV
Referenced Forms

Air Force Form 651..... (Hazardous Air Traffic Report (HATR)).

DA Form 2028 ..... (Recommended Changes to Publications and Blank Forms) is cited in the suggested improvements statement.

DA Form 2203-R ..... (Demolition Reconnaissance Record) is cited in paragraph 9-1.

DA Form 2696-R ..... (Operational Hazard Report) is cited in paragraph 10-7.

USARAK Form 137 ..... (Airborne Operation Flash Report) is cited in paragraph 10-9f(6), and figure 10-1.

Appendix B
Range and Training Facilities

B-1. Fort Richardson range and training facilities

Table B-1
Fort Richardson ranges and training facilities

Range Name	Range Type	Description at:
Grezelka	Machine gun transition	Table B-2, page B-2
Grezelka Annex	Machine gun, 10 meters	Table B-2, page B-2
McGee	Pistol familiarization	Table B-2, page B-2
Oates	Machine gun, 10 meter	Table B-2, page B-2
Statler	Competition pistol	Table B-2, page B-2
Newton	Combat pistol	Table B-2, page B-3
Zero	25-meter rifle	Table B-2, page B-3
Zero Annex	25-meter rifle/pistol	Table B-2, page B-3
Record	M16 qualification/field fire/night fire	Table B-2, page B-3
Sports Fire	Pistol/rifle/shotgun	Table B-2, page B-3
Hand Grenade	Hand grenade familiarization	Table B-2, page B-3
Biathlon	Rifle	Table B-2, page B-3
Mahon	Artillery/mortar subcaliber	Table B-2, page B-3
40mm Grenade	Rifle grenade	Table B-2, page B-4
LAW/AT4	Antitank	Table B-2, page B-4
Davis/Trench System	Tactical live fire	Table B-2, page B-4
Pedneau	Rifle/machine gun	Table B-2, page B-4
McLaughlin Complex	Tactical live fire	Table B-2, page B-4
Shoot House	Live-fire facility	Table B-2, page B-4
Kraft/Hand Grenade	Qualification	Table B-2, page B-5
MK-19	Qualification	Table B-2, page B-5
Demo II	Demolitions	Table B-2, page B-5
Demo III	Demolitions	Table B-2, page B-5
Artillery Firing Points	105mm	Table B-2, page B-6
Helicopter Door Gunner	Machine gun, M-60	Table B-2, page B-6
Malamute Assault Strip	4,400-foot landing strip for landing up to a C-130 assault	Table B-2, page B-6

Table B-1
Fort Richardson ranges and training facilities—Continued

Range Name	Range Type	Description at:
Drop Zones	Personnel, heavy equipment, container delivery system, and Simulated Airdrop Training Bundle	Table B-2, page B-6
Road March Courses	Established routes	Table B-2, page B-6
Cross-Country Ski Trails	Established routes	Table B-2, page B-6
Jump Tower	34-foot tower	Table B-2, page B-7
Rail Loading Site	Located between Buildings 974 and 977	Table B-2, page B-7
Obstacle Course	Multi-obstacle facility that varies from easy to difficult	Table B-2, page B-7
Rappel Tower	44-foot tower	Table B-2, page B-7
Arctic NBC Site	Consist of eight stations including a CS chamber	Table B-2, page B-8
Aircraft Mock-Up	C-130, C-141, C-5A	Table B-2, page B-8
Baumeister Plywood City	MOUT, nonlive fire facility	Table B-2, page B-8
Mortar Firing Points	60mm/81mm mortar	Table B-3, page B-8

Table B-2
Fort Richardson description and location of ranges and training facilities

Range	Location	Description
Grezelka	UC604968	Grezelka Range is a six-lane multipurpose, machine-gun transition and field-fire range consisting of computer-scored Enhanced Remote Target System targets. The target array for Lanes 1, 4, 5, and 6 is from 100 to 800 meters. In Lanes 2 and 3, the target array is from 100 to 1,000 meters. This range has a warm-up building, public address system, latrine, and control tower. See the range SOP for special instructions.
Grezelka Annex	UC603969	Grezelka Annex is a 10-meter, machine-gun range with six firing positions. This range has a target-storage shed and uses the latrine and warm-up building on Grezelka Range. Weapons fired are machine gun 7.62mm and squad automatic weapon 5.56mm. See the range SOP for special instructions.
McGee	UC599959	McGee Range is a one-lane, stress, live-fire course with nine target locations. The latrine and control tower on Oates Range are shared with this range. See the range SOP for special instructions.
Oates	UC599959	Oates Range is a 10-meter, machine-gun range consisting of a firing line with ten firing points with two targets at each point. This range has a latrine, control tower, and target-storage shed. Weapon fired is machine gun (7.62mm, 50 caliber machine gun, squad automatic weapon 5.56mm). See the range SOP for special instructions.
Statler	UC597957	Statler Range is a 30-point, competitive firing range for all caliber pistols with firing lines at 7, 15, 25, and 50 meters. This range has a latrine, control tower, and target-storage shed. Exception: military police units may fire 12-gauge shotguns on this range. See the range SOP for special instructions

Table B-2
Fort Richardson description and location of ranges and training facilities—Continued

Range	Location	Description
Newton	UC598958	Newton Range is a seven-lane, combat-pistol range for all caliber pistols with computer-scored Enhanced Remote Target System targets at 13, 17, 19, 23, 27, and 31 meters. This range uses the control tower and latrine on Statler Range. See the range SOP for special instructions.
Zero	UC593948	Zero Range is a 60-point, firing range with stationary targets at 25 meters from the firing line. This range has a control tower, warm-up building, public address system, latrine, and target-storage shed. See the range SOP for special instructions.
Zero Annex	UC594952	A 15-point range with target berms at 25, 50, and 75 meters. This range has a control tower and latrine. See the range SOP for special instructions.
Record	UC590946	Record Range is a 16-point, modified, record-fire range consisting of an M16 qualification and field-fire range with computer-scored targets at 50, 75, 100, 150, 175, 200, 250, and 300 meters. This range has a night-firing set-up with firing lines at 25 and 50 meters. The warm-up building is collocated with the Zero Range. See the range SOP for special instructions.
Sports Fire	UC593954	Sports Fire Range is a 15-point, firing range with distances from 25 to 300 yards. Privately owned weapons, such as pistols, rifles, and shotguns can be used on this range. See the Sports Fire Range SOP for operations. Trap and skeet are not authorized.
Hand Grenade (HE Familiarization)	UC586933	Hand Grenade Range has six throwing bays and an OIC (HE familiarization) tower and observation bay for personnel waiting to use the range. The range can be used for hand-grenade and claymore training. Snow cover closes this range to hand-grenade training. Soldiers must wear flak vests, helmets, and if available, eye protection. See the Hand Grenade Range SOP. A medic with an aid bag and a MEDEVAC vehicle is required.
Biathlon	UC596933	Biathlon Range is a 10-point, firing range with stationary targets 50 to 100 meters. Weapons fired are 22 caliber and 5.56mm. Special instructions include that the gate leading to the Biathlon Range must be locked at all times or guarded when unlocked. See the Biathlon Range SOP for an overlay of ski trails. A combat lifesaver with an aid bag and a MEDEVAC vehicle is required. A guard with communications capability must be posted at the entrance to Snowhawk Cabin Trail (vicinity of the Ship Creek Engineering Station). See the range SOP for special instructions.
Mahon	UC602961	Mahon Range is an M31 Artillery Subcaliber Trainer, SABOT, and M880 TP round range located in a cleared area approximately 400 meters by 300 meters. This range consists of observation posts, control tower, gun positions, and a scaled, city-target array. The maximum ordinate for any projectile will not exceed 3,000 feet above ground level. An aircraft spotter with communications is required at the traffic pullout on Arctic Valley Road. See the Mahon Range SOP for special instructions.

Legend: SABOT—81mm Mortar M1 training device

Table B-2
Fort Richardson description and location of ranges and training facilities—Continued

Range	Location	Description
40mm Grenade	UC528996	The 40mm Grenade Range consists of four lanes with a stationary target array. HE rounds will not be fired at the wooden targets on this range. Only explosive-ordnance-disposal personnel are authorized to enter the impact area. Firing HE grenades into 4 or more inches of snow is prohibited. Firing grenades at any point closer to the firing line than the closest target is prohibited. See the 40mm Grenade Range SOP for special instructions. A combat lifesaver with an aid bag and a MEDEVAC vehicle are required for TP and HE rounds.
LAW/AT4	UC528996	The LAW/AT4 Range is collocated with the 40mm Grenade Range and has four firing lanes, with armored vehicle hulks. Weapons fired are LAW, LAW Subcaliber, AT4, and AT4 Subcaliber. (No one except explosive-ordnance-disposal personnel are permitted forward of the firing line.) A combat lifesaver with an aid bag and MEDEVAC vehicle is required for TP and HE rounds. See the range SOP for special instructions.
Davis Range Complex	UC556904	Davis Range adapts to small-unit, tactical, live-fire exercises. Range fans are designed based on the unit tactical plan. The range consists of multiple, live-fire areas, a squad/platoon maneuver area, and a target array that can be supplemented with the Portable Inventory Target. Road guards with radios are required. Weapons fired are 5.56mm, 40mm TP, LAW Subcaliber, hand grenades, and small quantities of demolition, not to exceed 10 pounds. See the Davis Range SOP for special instructions. A medic with an aid bag and a MEDEVAC vehicle is required. Overflight of the surface danger zone or surface clearance is required to ensure the area is clear of nonparticipating personnel and equipment.
Pedneau	UC593954	Pedneau Range has 25 firing points with target distances from 100 to 600 yards. Weapons fired are 7.62mm and 5.56mm. Communication must be established with Portable Inventory Target officer and the firing line. See the range SOP for special instructions.
McLaughlin	UD568036	McLaughlin Range adapts to tactical exercises, squad to company level. Range fans are designed based on the unit tactical plan. Portable Inventory Targets are available at range control. Road guards with radios are required. Weapons fired are 5.56mm, 7.62mm, 40mm TP rounds, and demolitions, not to exceed 20 pounds above ground. Dud-producing munitions will not be fired on this range. A medic with an aid bag and a MEDEVAC vehicle is required. Overflight of the surface danger zone or surface clearance is required to ensure the area is cleared of nonparticipating personnel and equipment. See the McLaughlin Range SOP for special instructions.
McLaughlin Assault Course	UD567029	The McLaughlin Range Assault Course is a temporary, nonstandard range that was developed to represent a small, urban area. Range fans are designed based on the unit tactical plan. Road guards with radios are required. Weapons fired are 7.62mm, 5.56mm, and 40mm TP/Illum, and demolitions not to exceed 20 pounds above ground. A medic with an aid bag and MEDEVAC vehicle is required. Overflight of the surface danger zone or surface clearance is required to ensure the area is cleared of nonparticipating personnel equipment. See the range SOP for special instructions.
Shoot House	UD587938	The Shoot House Range is an advanced, live-fire, training facility for close-quarters room and building clearing operation. A range control briefing and walk-through is required for the OIC and RSO. A medic with an aid bag and a MEDEVAC vehicle is required. See the Shoot House Range SOP for special instructions.

Table B-2
Fort Richardson description and location of ranges and training facilities—Continued

Range	Location	Description
Kraft/Hand Grenade (Qualification)	UC595950	Kraft Range/Hand Grenade (Qualification) Range consists of distance, accuracy, assault, and qualification courses (per FM 3-23.30)
MK-19	UD567029	MK-19 Range consists of two lanes of stationary targets at distances of 400, 600, 800, 1,100, and 1,500 meters from the firing line. There are two dismounted and one mounted firing positions per lane. A combat lifesaver with aid bag and MEDEVAC vehicle is required. Overflight of the surface danger zone or surface clearance is required to ensure area is clear of nonparticipating personnel and equipment. See the range SOP for special instructions.
Demo II	UD553068	Demo II is a 300-meter by 600-meter area that is used for demolition training, and consists of three demolition pits, tables, and a latrine. No more than 10 pounds of TNT or equivalent (weight of explosives X relative effectiveness) above ground and 40 pounds below ground. The facility manager will review exceptions to the limit on a case-by-case basis. A medic with an aid bag and an ambulance is required. See the range SOP for special instructions.
Demo III	UD558065	Demo III is a 300-meter by 800-meter area that is used for heavy-demolition training. No more than 40 pounds of TNT or equivalent (weight of explosives X relative effectiveness) above ground and 150 pounds below ground. A medic with aid bag and an ambulance is required. See the range SOP for special instructions.
Upper Fox Mortar Point	UC56539935	Upper Fox is an area approximately 100 meters by 50 meters. The mortar point is located east of Eagle River Flats. A medic with an aid bag and a MEDEVAC vehicle is required. Weapon fired is 81mm mortar. See the range SOP for special instructions.
Lower Fox Mortar Point	UC56519912	Lower Fox is an area approximately 100 meters by 50 meters. The mortar point is located east of Eagle River Flats. A medic with an aid bag and a MEDEVAC vehicle is required. Weapon fired is 81mm mortar. See the range SOP for special instructions.
Cole Point Mortar Point	UC55289955	Cole Point is an area approximately 100 meters by 50 meters on a knoll overlooking Eagle River Flats. Although this is primarily an observation post for the adjustment of mortar and artillery fire, the area may be used for demonstration type firing of mortars. A medic with an aid bag and a MEDEVAC vehicle is required. Weapons fired are 81mm and 60mm mortars. See the range SOP for special instruction.
Eagle Mortar Point	UD56200034	Eagle is an area approximately 100 meters by 50 meters on a knoll overlooking Eagle River Flats. This point is also used as an observation point for the adjustment of mortar and artillery fire. Road guards with radios will be posted at UC56509925 and UD58700215 and will not allow personnel to cross the gun target line while mortars are firing. A medic with an aid bag and a MEDEVAC vehicle are required. Weapons fired are 81mm and 60mm mortars. See the range SOP for special instruction.
Vital Mortar Point	UD54850318	Vital is an area approximately 100 meters by 50 meters overlooking Eagle River Flats. Also used as an observation point for the adjustment of mortar and artillery fire. A medic with an aid bag and a MEDEVAC vehicle is required. Weapons fired are 81mm and 60mm mortars. See the range SOP for special instructions.

Table B-2
Fort Richardson description and location of ranges and training facilities—Continued

Range	Location	Description
John Mortar Point	UD57350194	Firing Point John is an area approximately 100 meters by 50 meters. Road guards, with radios, must be posted at UC56509925 and UD58700215 and will not allow personnel to cross the gun-target line while mortars are firing. Weapon fired is 81mm mortar. A medic with an aid bag and a MEDEVAC vehicle is required. See the range SOP for special instructions.
Joe Mortar Point	UD58310195	Firing Point Joe is an area approximately 100 meters by 50 meters. Road guards, with radios, must be posted at UC58709925 and UD58700215 and will not allow personnel to cross the gun-target line while mortars are firing. Weapon fired is 81mm mortar. A medic with an aid bag and a MEDEVAC vehicle is required. See the range SOP for special instructions.
Ken Mortar Point	UD58310188	Firing Point Ken is an area approximately 100 meters by 50 meters. Road guards, with radios, must be posted at UC56509925 and UD58700215 and will not allow personnel to cross the gun-target line while mortars are firing. Weapon fired is 81mm mortar. A medic with an aid and a MEDEVAC vehicle is required. See the range SOP for special instructions.
Perry Mortar Point	UD57270147	Firing Point Perry is an area approximately 100 meters by 50 meters. Road guards, with radios, must be posted at UC56509925 and UD58700215 and will not allow personnel to cross the gun-target line while mortars are firing. Weapon fired is 81mm mortar. A medic with an aid bag and a MEDEVAC vehicle is required. See the range SOP for special instructions.
Helicopter Door Gunnery Range	UD541003 to UD552995	A single-lane range in Eagle River Flats that may be traversed from east to west or west to east while firing (see the range SOP). A medic with aid bag and a MEDEVAC Vehicle is required. Overflight of surface danger zone is required to ensure the area is clear of nonparticipating personnel and equipment.
Malamute Assault Strip	UD585049	A 4,500-foot, assault landing strip for C-130 aircraft. See the range SOP for special instructions.
Malamute Drop Zone	UD586048	Drop Zone for personnel, heavy equipment, CDS, Simulated Airdrop Training Bundle. See the range SOP for special instructions.
Neibhur Drop Zone	UD598015	Neibhur Drop Zone is limited to single-ship, daylight delivery of CDS or Simulated Airdrop Training Bundle. Due to the hazards on and immediately surrounding the area it is not cleared for personnel drops. Road guards, with radios, are required. See the range SOP for special instructions.
Geronimo Drop Zone	UC608863	Geronimo Drop Zone is a 400- by 700-meter drop zone in mountainous terrain. This is an Army tactical drop zone for use by helicopter only. See the range SOP for special instructions.
Road March Courses	Start Point (see SOP)	Road March courses are established along the road/trail network within the training areas. Provide range control with an overlay of the route of march. See the range SOP for special instructions.

Legend: CDS—container delivery system

Table B-2
Fort Richardson description and location of ranges and training facilities—Continued

Range	Location	Description
Cross-Country Ski Trails	Start Point (see SOP)	Cross-Country Ski Trail was established for cross-country ski training. Vehicles are not allowed on any ski trail.
Violet Ski Trail	UC595979 (TA 7A)	Violet Ski Trail is a 5-mile trail over mostly level terrain with some short hills. The Eklutna water line right-of-way on the north bank of Fossil Creek. The trail crosses Poleline Road.
White Ski Trail	UD586023 (TA 6A, 6B)	White Ski Trail is a 4- to 5-mile trail with varying terrain. The trail parallels Artillery Road and crosses Route Bravo where the two roads meet.
Brown Ski Trail	UD580028 (TA 1B)	Brown Ski Trail is a 3-mile trail over hilly terrain. The trail begins in the gravel pit north of Artillery Road and parallels a sector of White Ski Trail.
Blue Ski Trail	UC544963 Start Point (TA 8A)	Blue Ski Trail is a 1.4-mile trail over hilly, wooded terrain. The trail begins along Loop Road past the railroad crossing and winds through the forest. These are not road crossings.
Red Ski Trail	UC572942 Start Point	The Red Ski Trail is a variable distance trail over moderately hilly terrain in the main post area west of Glenn Highway. There are no road crossings.
Orange Ski Trail	UD596062 (TA 2A-B)	The Orange Ski Trail is a 4-mile trail over flat terrain with some gentle slopes. The trail crosses Clunie Lake Road twice.
Black Ski Trail	UD611085 (TA 1B, 1C, 2A and 2B)	The Black Ski Trail is a 5-mile trail over mostly flat terrain. The trail has five road crossings.
Ski and Shoot	UC548931	The Ski and Shoot Trail is a variable-distance trail that accesses the small arms complex for pistol or rifle training. The trail is accessed at Cottonwood Park and goes under the Ship Creek Bridge, which enables units to ski from the cantonment area to the small arms complex and return by the same route. The trail is marked with signs and mile markers, and is routed over flat to moderately hilly terrain. Ranges used in conjunctions with the trail must be scheduled and manned per this regulation.
Jump/Rappel Tower	UC544944	The 34-foot jump refresher tower is at the corner of Davis Highway and 1st Street. See the range SOP for special instructions.
Rail Loading Site	UC552950	The rail-loading site is located between Buildings 974 and 977. See the range SOP for special instructions.
Obstacle Course	UC568965	A multi-obstacle facility that varies from fairly easy to difficult, with some areas quite high. See the range SOP for special instructions.
Rappel Tower	UC569962	A 44-foot tower, two incline walls, and a latrine on Camp Carroll. See the range SOP for special instruction.

Legend: TA—training area

Table B-2
Fort Richardson description and location of ranges and training facilities—Continued

Range	Location	Description
Arctic NBC Site	UC581977	The Arctic NBC facility consists of eight stations including a CS chamber, warm-up building, and a latrine. A medic with aspirator, oxygen, aid bag, and a MEDEVAC vehicle is required. See the range SOP for special instructions.
Aircraft Mock-Up	UC545942	A training facility used to rehearse loading/unloading procedures for C-130, C-141, and C-5A aircraft. See the range SOP for special instruction.
Baumeister Plywood City	UC552995	MOUT site is nonlive-fire facility consisting of 21 structures, a climbing wall, and an aboveground culvert. See the range SOP for special instructions.

Note: Ski trails and corresponding training area must be scheduled with range control.

Table B-3
Fort Richardson range artillery (105mm) firing points
Description: Established artillery-firing points survey data is in the Artillery Trig List. Firing points monuments are 105mm shell cases embedded in concrete. See the range SOP for special instructions.

Firing Points	Locations	Firing Point	Location
Firing Point 1	UD58700230	Firing Point 10	UD61170884
Firing Point 2	UD57310354	Firing Point 11	UD59149770
Firing Point 3	UD57500476	Firing Point 16	UD59400813
Firing Point 4	UD57200519	Firing Point 23	UD59240591
Firing Point 5	UD57120554	Firing Point 31	UD60180174
Firing Point 6	UD57360636	Firing Point 33	UD60560279
Firing Point 7	UD57780741	Firing Point Malamute	UD58500417
Firing Point 8	UD57860751	Firing Point Neibhur	UD59770140
Firing Point 9	UD57940760		

B-2. Fort Wainwright range and training facilities

Table B-4
Fort Wainwright ranges and training facilities

Range Name	Range Type	Description at:
M16 Qualification	M16 qualification	Table B-5, page B-10
Hand Grenade (Qualification)	Distance and accuracy course	Table B-5, page B-10
40mm HE Grenade	M203/M79 rifle grenade	Table B-5, page B-10
Combat Pistol	Combat pistol	Table B-5, page B-10
Multipurpose Machine Gun	Machine gun	Table B-5, page B-10
Known Distance	Known distance	Table B-5, page B-10
M203/AT4	Antitank weapon/rifle grenade	Table B-5, page B-10
Manchu Range	Rifle/machine gun	Table B-5, page B-10
Birch Hill Biathlon	Biathlon range	Table B-5, page B-10
Shoot House	MOUT live-fire facility	Table B-5, page B-11
MK-19	40mm machine gun range	Table B-5, page B-11
Military Police Qualification	Pistol and shotgun	Table B-5, page B-11
Aerial Gunnery	Door gunnery	Table B-5, page B-11
Splinter Village	Military operations urban terrain nonlive fire	Table B-5, page B-11
NBC Site	Consisting of nine stations including a CS chamber and warm-up building	Table B-5, page B-11
Rappel Tower	40-foot tower	Table B-5, page B-11
Obstacle Course	Multi-obstacle facility that varies from easy to difficult	Table B-5, page B-11
Buffalo Trench	Nonlive-fire trench	Table B-5, page B-11
Engineer Camp	Unimproved bivouac area	Table B-5, page B-11
Winter Camp	Hardened bivouac area	Table B-5, page B-12
Russian Trench	Live-fire trench line	Table B-5, page B-12
Manchu Pick-Up Zone	Hardened helicopter pick-up zone	Table B-5, page B-12
Drop Zones	Personnel, heavy equipment, CDS, Simulated Airdrop Training Bundle	Table B-5, page B-12
Firebird Flight Landing Strip	C-130 landing zone	Table B-5, page B-12
Mortar and Artillery Firing Points	60mm, 81mm, 4.2-inch mortar, 105mm, and 155mm	Table B-6 page B-13
MOUT Assault Course	Five-lane, live-fire facility	

Legend: CDS—container delivery system

Table B-5
Fort Wainwright description and location of ranges and training facilities

Range	Location	Description
M16 Qualification	Small Arms Complex	M16 Qualification Range is a 16-point, record-ire range with targets at 50, 100, 150, 200, 250, and 300 meters. See the range SOP for special instructions.
Hand Grenade (Qualification)	Small Arms Complex	Hand Grenade (Qualification) Range consists of distance, accuracy, assault, and qualification courses (per FM 3-23.30). See the range SOP for special instructions.
40mm HE	Small Arms Complex	40mm Grenade Range has four firing points and four zero points available for practice and HE rounds. Firing of 40mm HE into 4-inches or more of snow is prohibited. No one except explosive-ordnance-disposal personnel are permitted forward of the firing line at any time. A medic with an aid bag and a MEDEVAC vehicle is required for HE rounds. A combat lifesaver with an aid bag and MEDEVAC vehicle is required for firing TP rounds. See the range SOP for special instructions.
Combat Pistol Range	Small Arms Complex	Pistol Range is a seven-lane, combat pistol range for all caliber pistols with computer-cored Enhanced Remote Target System targets at 13, 17, 19, 23, 27, and 31 meters. See the range SOP for special instructions.
Multipurpose Machine Gun	Small Arms Complex	Multipurpose Machine Gun Range is a six-lane, multipurpose, machine-gun, transition and field-fire range consisting of computer-scored Enhanced Remote Target System targets. The target array for Lanes 1, 2, 5, and 6 are from 100 to 800 meters. In Lanes 3 and 4, the target array is from 100 to 1,000 meters. Has a public address system, latrine, and control tower. (Range-control personnel operate the computer in the control tower.) See the range SOP for special instructions.
Known Distance	Small Arms Complex	Known Distance Range has 30 firing and zero range points available at 25, 100/200, 300/400, and 500/600 meters and 35 firing points on a 1,000-inch zero range. See the range SOP for special instruction.
M203/AT4	Small Arms Complex	The M203/AT4 Range is used for firing the AT4 HE and 9mm subcaliber rounds. This range is also used to fire the M-203 TP round. The first, four firing points on the east side of the range are used for the M203 and the last two firing points on the west side, with hard targets, are for the AT4. A medic with an aid bag and a MEDEVAC vehicle is required for firing HE rounds. See the range SOP for special instructions.
Manchu Range	VG993752	Manchu Range has rough terrain with field-expedient, fighting positions capable of firing squad-size elements not to exceed ten firing positions. Stake mounted targets are at 50 to 175 meters. Special instructions: no modification of the range is authorized except by range control. All targets shot down will be repaired or replaced by units. The latrine will not be used during firing. A medic with an aid bag and a MEDEVAC vehicle is required. See the range SOP for all road-guard requirements. See the range SOP for special instructions.
Birch Hill Biathlon	VG699935	Birch Hill Biathlon Range is a 10-point, stationary target range equipped with a warm-up building. Using unit must supply the stove and fuel for the warm-up building. No vehicles, including snow machines, will be allowed on the ski trails of White Bear Loop except for a medical emergency and only at the direction of range control in response to a request for medical assistance. A combat lifesaver with an aid bag and a MEDEVAC vehicle is required. See the range SOP for special instructions.

Table B-5
Fort Wainwright description and location of ranges and training facilities—Continued

Range	Location	Description
Shoot House	Small Arms Complex	The Shoot House is a six-room, live-fire-training facility for close-quarter room and building clearing operations. A range-control briefing and walk through is required for the OIC and RSO. A medic with an aid bag and MEDEVAC vehicle is required. See the range SOP for special instructions.
MK-19	Small Arms Complex	MK-19 Range consists of two lanes of stationary targets at distances of 400, 600, 800, 1,100, and 1,500 meters from the firing line. On the firing line, there are two dismounted and one mounted firing position per lane. A combat lifesaver with an aid bag and a MEDEVAC vehicle is required. See the range SOP for special instructions.
Military Police Qualification Range	Small Arms Complex	Military Police Qualification Range is a five-lane, pistol and shotgun course with firing lines at 7, 15, 25, and 50 meters. See the range SOP for special instructions.
Military Assault Course	WG206664	The Military Assault Course is a facility consisting of five lanes with a total of seven structures and is used as a live-fire or Multiple Integrated Laser Equipment System training facility. A medic with aid bag and MEDEVAC vehicle is required. See the range SOP for special instructions.
Aerial Gunnery	Stuart Creek Impact Area	A single-lane range in the impact area that may be traversed from southwest to northeast and northeast to south-west. A medic with aid bag and MEDEVAC vehicle is required. See the range SOP for special instructions.
Splinter Village	VG718879	Splinter Village is a MOUT training facility consisting of 21 wooden buildings arranged to simulate a European village. This facility provides a setting for realistic training in tactics and techniques of MOUT. This is a nonlive-fire facility, blanks only. Smoke and pyrotechnics may be used at this facility depending on the fire index. Medical support is not required to operate this facility. It is advised that unit commanders bring an assigned combat lifesaver to the facility. See the range SOP for special instructions.
NBC Training Site	VG72569095	The NBC Training Facility consists of eight stations, including a CS chamber, and is serviced with a warm-up building and latrine. The OIC must be NBC qualified. Medical support is required for this facility. See the range SOP for special instructions.
Rappel Tower	VG72558765	The Rappel Tower is located at the east end of TA 104. It consists of a 40-foot tower with one, flat-face wall and two, open-face walls. There are also two incline-walls to support training. The OIC must be an SSG and be rappel-master, air-assault, or mountaineering certified. Medical support is required for this facility. See the range SOP for special instructions.
Obstacle Course	VG71958810	The Obstacle Course consists of 30 obstacles that vary in size from low to high. The purpose of the course is to give soldiers confidence in their mental and physical abilities and cultivates their sprit of daring. This facility also has a hand-to-hand combative pit and a latrine. Medical support is required for this facility. See the range SOP for special instructions.
Buffalo Trench	VG72258781	Buffalo Trench is a nonlive, trench facility located within TA 104. Medical support is not required to operate this facility. It is advised that unit commanders bring an assigned combat lifesaver to the facility. See the range SOP for special instructions.
Engineer Camp	WG01567452	Engineer Camp is located within YTA-2. It consists of unimproved areas for small- to large-size elements to bivouac. Medical support is required for this facility. See the range SOP for special instructions.

Table B-5
Fort Wainwright description and location of ranges and training facilities—Continued

Range	Location	Description
Winter Camp	VG99057435	Winter Camp is located within YTA-2. It consists of several improved areas to establish a bivouac site for small- to larger-size elements. Medical support is required for this facility. See the range SOP for special instructions.
Russian Trench	WG20857090	The Russian Trench is a live-fire, trench system designed to train platoons and companies on offensive operations. The trench allows firing small arms, demolitions, and hand grenades on the facility. Medical support is required for this facility. See the range SOP for special instructions.
Manchu Pick-Up Zone	VG72608795	Manchu Pick-Up Zone is within TA 104. It consists of a 1000-meter, dirt, pick-up zone. Medical support is not required to operate this facility. It is advised that unit commanders bring an assigned combat lifesaver to the facility. See the range SOP for special instructions.
Husky Drop Zone	VG963826	An 800-meter drop zone for personnel, CDS, Simulated Airdrop Training Bundle, and heavy equipment. See the range SOP for special instructions.
Clear Creek Strip	VG730470	A 3,500-foot, assault strip for landing C-130 aircraft. See the range SOP for special instructions.
Blair Lakes or Vince Drop Zone	VG820360	A winter-use-only drop zone for personnel, heavy equipment, CDS, and Simulated Airdrop Training Bundle.
Firebird Landing Zone	WG166658	A 3,500-foot, assault strip for landing C-130 and C-17 aircraft. See the range SOP for special instructions.

Legend: CDS—container delivery system

Table B-6
Fort Wainwright range mortar and artillery firing points
Description: established mortar/artillery firing points and observation points

Firing Points	Location	Firing Point	Location
Firing Point 1	WG18358278	Firing Point 14	WG37417222
Firing Point 2	WG16608220	Firing Point 15	WG298778
Firing Point 3	WG15008134	Firing Point 16	WG235817
Firing Point 4	WG13808180	Firing Point 17	WG229784
Firing Point 5	WG12327900	Firing Point 18	WG203789
Firing Point 6	WG14217762	Firing Point 19	WG202765
Firing Point 7	WG15367370	Firing Point 20	WG153727
Firing Point 8	WG16997771	Firing Point 21	VG639738
Firing Point 9	WG20507190	Firing Point 22	VG629738
Firing Point 10	WG19707090	Firing Point 23	VG635754
Firing Point 11	WG24346690	Firing Point 24	VG703862
Firing Point 12	WG28326965	Firing Point 25	VG724859
Firing Point 13	WG31407153	Firing Point 26	VG721867
Firing Point 2014	WG18606933	Firing Point Hippie	WG15007176
TAC II	WG15187354	TAC III	WG13677822
CAM Site I	WG25857345	CAM Site II	WG22557718

B-3. Donnelly Training Area ranges and training facilities

Table B-7
Donnelly Training Area ranges and training facilities

Range Name	Range Type	Description at:
Alabama	Rifle/pistol	Table B-8, page B-15
Arkansas	Pistol/rifle/machine gun	Table B-8 page B-15
Colorado	Rifle/machine gun	Table B-8 page B-15
Washington	Artillery/mortar/missile	Table B-8 page B-15
Georgia	Rifle/machine gun	Table B-8 page B-15
Lampkin	Rifle/machine gun/demolitions	Table B-8 page B-15
Texas	Artillery/mortar/missile	Table B-8 page B-15
CALFEX Bowl	Defensive/tactical live fire	Table B-8 page B-15
OP Lake Assault Course	Tactical live fire	Table B-8 page B-15
Bondsteel Maneuver Range	Eleven-building site—combined live-fire range	Table B-8 page B-16
Simpsonville Maneuver Range	Seven building site-combined arms live-fire range	Table B-8 page B-16
Mortar Points	60mm/81mm/4.2-inch/laser	Table B-8 page B-16
Artillery	105mm/155mm	Table B-8 page B-16
Drop Zones	Personnel, heavy equipment, CDS, Simulated Airdrop Training Bundle	Table B-8 page B-16
Assault Strip	C-130 landing zone	Table B-8 page B-16
Forward Area Arming and Refueling Points	Helicopter refuel points	Table B-8 page B-16
Legend: CDS—container delivery system		

Table B-8
Donnelly Training Area description and location of ranges and training facilities

Range	Location	Description
Alabama	WF613961	Alabama Range is a 300-meter, multiple-target range with eight firing tables with benches for bench-rest firing. The range has target frames at 25, 50, 100, 150, 200, 250, and 300 meters. The firing points are staggered to accommodate firing at various ranges out to 300 meters from multiple-table positions. This range is utilized for zeroing privately owned hunting weapons by the local, military personnel stationed at DTA. This range is operated under controlled-fire-area conditions.
Arkansas	WF597955	Arkansas Range is designed for the qualifying of small arms, direct-fire weapons. Small arms are defined as M16, 9mm, and .45 caliber. It is equipped for 7.62mm (M60) munitions at 10-meter, qualification targets. The range setup has a 25-meter berm for M16 qualification for alternate "C" course and six station walk-through lanes for military police/officer pistol qualification. The range is equipped with lighting facilities for use in limited visibility. A public address system is operated from the control tower. This range is operated under controlled-fire-area conditions. The range is supplied with control tower/equipment, telephone hookup, lighting/electricity, latrine, warm-up building, target-storage building, and a helicopter pad. See the range SOP for special instructions
Colorado	WF604942	Colorado Range is designed for the testing and qualifying of small arms and direct-fire weapons that require 50 yards or more. It has a series of ten firing berms spaced 100 yards apart. The range is operated under controlled-fire-area conditions. This range is not authorized for bivouac. It is equipped with a control tower, telephone drop, latrine, and target-storage building.
Washington	WF505775	Washington Range will accommodate surface-to-air fire for any air-to-air defense missile battery with target drone equipment and surface-to-surface firing of direct- and indirect-fire weapon systems.
Georgia	WF605937	Georgia Range is designed and used for multipurpose testing/training and qualification of small-arms, direct-fire weapons. Georgia Range is somewhat narrow, however, it provides approximately 1,200 to 2,000 meters of cleared area that runs east to west, with approximately 400 meters of with north to south. This range is operated under controlled-fire-area conditions. Direction of fire at Georgia Range is west. This range is equipped with one refueling Forward Area Arming and Refueling Point (west end) and four helicopter pads (west end). See the range SOP for special instructions.
Lampkin	WF576906	Lampkin Range is designed and utilized for multipurpose testing/training and firing of small-arms, direct-fire weapons, and limited-engineer demolitions. Lampkin Range borders the Delta River (Mississippi Impact Area). Direction of fire is south to southwest. Lampkin Range is located in restricted airspace R2202.
Texas	WF553770	Texas Range is capable of supporting firing of all types of large-caliber, direct and indirect weapons as well as defense missile systems.
CALFEX Bowl	WF549834	CALFEX Bowl is a small-arms, tactical, live-fire area. Range fan is designed based on the unit tactical plan. See the range SOP for special instructions.
OP Lake Assault Course	WF532812	The OP Lake Assault Course is designed as a tactical, live-fire area for squad to company level. Range fan area designed based on the unit tactical plan. See the range SOP for special instructions.

Table B-8
Donnelly Training Area description and location of ranges and training facilities—Continued

Range	Location	Description
Bondsteel Maneuver Range	WF532800	Bondsteel Maneuver Range has 11 buildings electrically wired for alternating-current powered, infantry remote targets, located adjacent to impact area and inside restricted airspace R2202
Simpsonville Maneuver Range	WF212919	Simpsonville is a building-site, combined-arms, live-fire range. A medic with an aid bag and a MEDEVAC aircraft is required. See the range SOP for special instructions.
OP5 Laser and Mortar Point	WF555872	OP5 is a laser and mortar-firing point. Weapons fired are 60mm, 81mm, and 4.2-inch mortar round. See the range SOP for special instructions.
OP6 Laser and Mortar Point	WF554846	OP6 is a laser and mortar firing point. Weapons fired are 60mm, 81mm, 4.2 inch mortar round. See the range SOP for special instructions.
OP7 Laser and Mortar Point	WF554846	OP7 is a laser and mortar firing point. Weapons fired are 60mm, 81mm, 4.2 inch mortar round. See the range SOP for special instructions.
OP7A Laser and Mortar Point	WF551833	OP7A is a laser and mortar firing point. Weapons fired are 60mm, 81mm, 4.2 inch mortar round. See the range SOP for special instructions.
OP8 Laser and Mortar Point	WF539824	OP8 is a laser and mortar firing point. Weapons fired are 60mm, 81mm, 4.2 inch mortar round. See the range SOP for special instructions.
OP9 Mortar Point	WF528823	OP9 is a mortar and observation post. Weapons fired are 60mm, 81mm, and 4.2-inch mortars. See the range SOP for special instructions.
OP10, OP11, and OP12	WF522752 WF517737 WF518713	These are Cold Region Test Center testing areas. Range control will coordinate approval for use when needed for unit training. See the range SOP for special instructions.
Sally Artillery Firing Point 105mm and 155mm	WF548817	Established artillery firing point data is in the Artillery Trig List. Firing-point monuments are 105mm shells embedded in concrete. See the range SOP for special instructions.
Bowhale Artillery Firing Point 105mm and 155mm	WF559821	Established artillery firing point data is in the Artillery Trig List. Firing-point monuments are 105mm shells embedded in concrete. See the range SOP for special instructions.
Mark Artillery Firing Point 105mm and 155mm	WF557829	Established artillery firing point data is in the Artillery Trig List. Firing-point monuments are 105mm shells embedded in concrete. See the range SOP for special instructions.
Audrey Artillery Firing Point 105mm and 155mm	WF541809	Established artillery firing point data is in the Artillery Trig List. Firing-point monuments are 105mm shells embedded in concrete. See the range SOP for special instructions.

Table B-8
Donnelly Training Area description and location of ranges and training facilities—Continued

Range	Location	Description
Big Lake Artillery Firing Point 105mm and 155mm	WF549816	Established artillery firing point data is in the Artillery Trig List. Firing-point monuments are 105mm shells embedded in concrete. See the range SOP for special instructions.
Buffalo Drop Zone	WF656961	A 1,300-meter long drop zone for personnel, CDS, and heavy equipment. See the range SOP for special instructions.
Butch Drop Zone	WF661785	A 1,775-meter long drop zone for personnel and CDS. See the range SOP for special instructions.
Donnelly Drop Zone	WF624771	An 1,800-meter long drop zone for personnel, heavy equipment, and CDS. See the range SOP for special instructions.
Eddy Drop Zone	WF687909	A 1,400-meter long drop zone for personnel, heavy equipment, and CDS. See the range SOP for special instructions.
Fox Drop Zone	WF635797	A 1,725-meter long drop zone for personnel, heavy equipment, and CDS. See the range SOP for special instructions.
Bear Drop Zone	WF625750	A 1,950-meter drop zone for personnel, heavy equipment, and CDS. See the range SOP for special instructions.
Pump Station 9 Drop Zone	WF640869	A 1,507-meter drop zone for CDS only. See the range SOP for special instructions
Sally Drop Zone	WF549779	A 1,705-meter drop zone for personnel and CDS. See the range SOP for special instructions.
Big Delta Drop Zone	WF301096	A 1,365-meter drop zone for personnel and CDS. See the range SOP for special instructions.
Twylia Drop Zone	WG307067	A 1,365-meter drop zone for CDS only. See the range SOP for special instructions.
Donnelly Assault Strip	WG624771	A 1,550-meter assault strip for landing C-130 aircraft. See the range SOP for special instructions.
Delta Assault Strip	WF300095	A 900-meter, assault strip for landing C-130 aircraft. See the range SOP for special instructions.
Eddy DZ Forward Area Arming And Refueling Point	WF685915	A helicopter refueling area. See the range SOP for special instructions.
Georgia DZ Forward Area Arming And Refueling Point	WF605935	A helicopter refueling area. See the range SOP for special instructions.
Legend: CDS—container delivery system		

Appendix C
Range and Training Area Maintenance Program

C-1. Purpose

This appendix's purpose is to provide administrative instructions for the execution of the range and training area maintenance program.

C-2. General

a. Each range and training area has a unit designated responsible for its maintenance. Units should contact range control for examples to ensure standardization.

b. Units will forecast their future dates for range and training area maintenance to prevent conflicts with scheduled training.

C-3. Range assignments

a. For FRA, see table D-1.

b. For FWA, see table D-2.

C-4. Responsibilities

a. Range control will—

(1) Schedule ranges.

(2) Issue target materials.

(3) Conduct administrative range procedures as outlined in this regulation.

(4) Inspect all ranges daily for cleanliness and damage. Ranges used during the day will be inspected before units are cleared from the range. A record of inspections will be maintained for 90 days and provided on request.

(5) Provide units with a range inspection and maintenance worksheet for each assigned range. These worksheets will contain a list of repairs that must be completed.

(6) Provide material to accomplish the repairs listed on the worksheet.

(7) Maintain all electrical- and moving-target mechanisms.

(8) Submit work orders to DPW for all work beyond the unit's capability and scope of responsibility.

(9) Coordinate all unexploded-ordnance removal activities with the 716th Explosive Ordnance Detachment before performing maintenance in the impact area of a range employing explosive projectiles.

(10) Provide units with a map with all range and training areas delineated.

b. Commanders will—

(1) Maintain the general police of assigned ranges and training areas.

(2) Perform all self-help repair (i.e., repair and replace windows, paint structures, cut grass 5 feet out from fixed objects and areas where tractors cannot be operated for safety reasons, fill and replace sandbags, and replace target-holding frames) as listed on the worksheet provided by range control.

(3) Provide range control with a list of tasks requiring engineer support, whereby range control will prioritize them.

(4) Coordinate responsibilities during times causing the least training distraction.

c. The director of Public Works will—

(1) Provide self-help material required for repairing structures in response to range-control requests.

(2) Provide mowing equipment to range control for grass maintenance.

(3) Provide work requested on maintenance and service work orders submitted by range control.

(4) Provide snow removal of range and training-area-access roads and target-access routes.

(5) Operate tractor-driven grass mowers (except on target berms and ditch banks where they cannot be operated for safety reasons).

Table C-1
Fort Richardson range and training area assignments

Unit	Ranges/Facilities	Training Areas
172d Infantry Brigade	Shoot House, Hand Grenade, Pedneau, Mahon, Davis, McLaughlin, Zero Annex, MK-19, Jump Tower, Aircraft Mock-Up, 40mm, AT4, Sports Fire, MOUT, Mortar Points, Artillery Points, Malemute DZ, Geronimo DZ, Grezelka Complex	1A, 1B, 1C, 5, 6A, 6B, 9A, 9B, 10A, 10B, 11E, 12A, 12B, 13, 14A, 14B, 14C
United States Army Garrison	Newton, Statler, Arctic NBC Site, Neibhur DZ	2B, 3, 4, 11A
Special Troops	Zero, Record, Demo II, Demo III	7A, 7B, 8A, 8B, 11C
267th Finance Battalion	Oates, McGee	11B
203d Personnel Service Battalion	Kraft	11D
59th Signal Battalion	Obstacle Course, Rappel Tower	2A
Provost Marshal	Site Summit	16

Table C-2
Fort Wainwright range and training area assignments

Unit	Ranges/Facilities	Training Areas
172d Infantry Brigade	M16 Qualification, Manchu Range, MK-19 Range, Plywood City, Machine Gun Range, Soviet Trench, 40mm HE Range, Grenade House, All Firing Points, Plywood City, 40mm/AT4 Range	Main road from M60 Range to MK-19 Range, Camera Site 2, 2 (B and C Battery) 4, TA 101, TA 104, TA 109, Johnson Road to intersection of Manchu and Quarry Road, Fire Bird Landing Zone, Quarry Road to the intersection of Skyline Drive, intersection of Transmitter and Beaver Creek Roads to intersection of Skyline Road. Winter Camp, Manchu Road to intersection of Manchu and Quarry Roads
4th Battalion/123d Aviation Regiment	Combat Pistol Range, Husky Drop Zone	Helicopter Hill, TA 112, TA 113, and road from range control to the dike. Transmitter Road to intersection of Transmitter and Beaver Creek Roads
Headquarters, United States Army Garrison	Known Distance Range, NBC Site	TA 108, TA 114
Special Troops	Engineer Camp (TA 2), Confidence Course, Military Assault Course Site, Rappel Tower	TA 110
Provost Marshal	Military Police Qualification Pistol Range	TA 102
267th Finance Battalion		TA 106
203d Personnel Service Battalion		TA 107

Appendix D
Implemented Policies that Affect Training

D-1. Purpose

This appendix's purpose is to provide historical information of conditions and situations affecting training that were identified by past commanders as training distracters.

D-2. General

This appendix's intent is to address the situations and/or conditions with the applied solutions and thereby inform commanders/trainers of some unique requirements that must be followed to conduct training or to preserve training assets in Alaska.

D-3. Training distracters/solutions

a. Visibility (vertical and horizontal). See AR 385-63, AR 95-2, DA policy, FAA, and this regulation.

(1) All USARAK small-arms ranges are within a controlled-firing area. Activation of the controlled-firing area is dependent on both vertical and horizontal ceiling requirements specified in the above mentioned documents. Winter weather conditions (ice fog) in Alaska occasionally prevent using the small-arms complex.

(2) The solution to this problem is to schedule unit's individual qualifications during nonwinter months (May to October). Commanders are also encouraged to schedule alternate days during winter months in an attempt to counter poor-visibility periods.

b. Nonoperation of Enhanced Remote Target System ranges at minus 20 degrees.

(1) Below zero degrees operation of the Enhanced Remote Target System (Remote Engagement Target System) equipment increases the malfunction and breakage rate. The Enhanced Remote Target System mechanisms were designed to operate in above-zero degrees weather and not in the extreme Alaskan temperatures. Heat pads have been added to the electronics enclosure and raises the operational temperature to above minus 20 degrees, although the rate of breakage continues to increase rapidly below zero. Other components of the system, such as the aluminum hubs and target-carrier frames, cannot be heated and are still subject to breakage.

(2) Enhanced Remote Target System ranges will continue to remain closed if the temperature falls below minus 20 degrees. The solution to this problem is to schedule qualifications during the warmer months (May through October) or to use the alternate course "C" target to meet qualification requirements for the M16 and 9mm weapons during periods of extreme cold.

c. Firing of 40mm HE and AT4 HE into more than 4 inches of snow.

(1) AR 385-63 recommends that 40mm HE ammunition not be fired into snow. USARAK Regulation 350-2 restricts the firing of HE munitions into more than 4 inches of snow. The cushioning of the snow increases the incidence of duds. The 40mm HE ammunition is extremely sensitive and the snow adds to the difficulty of finding duds during clearing procedures and increases the risk to explosive-ordnance-disposal personnel. Units are discouraged against firing the HE munitions into snow. There are no restrictions on TP rounds.

(2) Since the firing of AT4 and 40mm HE munitions is not a requirement for qualification, only familiarization, the firing of these munitions will remain restricted during periods when the snow depth is more than 4 inches. Units can continue to qualify with 40mm TP and AT4 subcaliber munitions.

d. Fire weather index requirements during summer months.

(1) The Bureau of Land Management publishes a fire weather index that determines the degree of dryness in Alaska. This index determines when and what munitions, and where they can be fired. A fire weather index of low or less has no restrictions. A fire weather index of extreme or higher indicates that the likelihood of these munitions causing a fire is extremely high. If permission is granted to allow firing when the index is moderate or higher and a fire is started, the military is liable for the cost.

(2) The DPTSM has the authority to waive the requirement, although previous commanders have been unwilling to assume the financial risk to the command and possible damage to the installation or adjacent civilian property. Most small-arms ranges in Alaska are fire safe and normal qualifications can be accomplished. Fire weather index restrictions can be found in this regulation or by contacting your range manager.

(3) There are no exceptions to this restriction. To fire weapons, including blanks above a high rating, a waiver must be approved by the DPTSM.

(4) Check with range control for the most current policy.

e. Firing into Eagle River Flats Impact Area.

(1) A large number of waterfowl were dying in the Eagle River Flats Impact Area from causes other than weapons effects. In 1990, firing was suspended until the cause could be determined. Scientists determined that the residue from white-phosphorous rounds resembled natural food and that ingestion poisoned the birds. If undisturbed, the residue settles into the mud and is out of reach of waterfowl. The residue is brought to the surface by the effects of explosives (mortar and artillery rounds) and may again become available to the waterfowl.

(2) Engineers have determined that 6 inches of ice will prevent cratering from artillery and mortar rounds. The thickness of the ice is monitored and units are advised when the thickness will permit winter use, which is usually in November. It will be several years before the Eagle River Flats are available for year-round firing. As stated in DA policy and this regulation, the firing of white-phosphorous rounds into wetlands is prohibited.

Appendix E
Overlays

E-1. Purpose

An overlay is constructed per AR 385-63 to identify range, surface-danger zones, and firing limits.

E-2. Preparation

a. Nonstandard ranges and special firing courses require surface-danger zone construction. Range OICs will not be granted clearance to fire unless copies of an approved overlay are on-hand at range control and with the range OIC on site. There is no exception to this requirement. Unit commanders must ensure range OICs have sufficient notice of duty to coordinate with range control, walk the terrain, and prepare the overlay.

b. Overlays are prepared by the unit range OIC in three copies at a scale of 1:50,000 unless otherwise directed by the range utilization manager. The basic reference for ammunition and weapon hazard data is AR 385-63. Claymore overlays are based on FM 23-23, appendix III.

c. Range OICs must consult the range facility specialist before constructing overlays. Surface-danger zone drawings must be precisely prepared; prior coordination will save time in research and will eliminate time consuming redrawing of overlays.

E-3. Marginal information

a. A sample surface danger zone overlay is at figure E-1.

b. Marginal information that must be included:

(1) Range or firing event.

(2) Date of firing.

(3) Weapons and ammunition depicted.

(4) Scale.

(5) Name, rank, unit, and telephone number of the preparer (range OIC).

(6) Signature of the preparer and the date.

(7) Minimum of two Universal Transverse Mercator grid reference points.

(8) Road guard/aircraft spotter positions.

c. Surface-danger zone overlays must show start fire line, cease-fire line, and azimuths of right and left limits in grid and magnetic.

d. Overlays must also be submitted for exercises/training involving the use of—

(1) Smoke.

(2) CS.

(3) Demolitions (outside of established demolition ranges).

(4) Convoys and road marches (within limits of training areas).

(5) Road blocks on major and secondary roads/trails.

(6) Trenching or cratering of secondary roads/trails.

(7) Establishment of new mortar/artillery firing points.

(8) Establishment of new trail networks in the training areas.

E-4. Overlay approval

a. Overlays will be submitted to range control for approval at least 2 weeks before the date of firing. All copies of the overlay must be reviewed, approved, and signed by the range facility manager, the range facility specialist, or the NCOIC of range control. One copy is returned to the unit and one copy is placed in range operations for reference during firing.

b. The importance of timely prior coordination cannot be overemphasized. Units will not be allowed to fire if an approved overlay is not in range operations and on site.

1. Davis Range
   Squad "MTC" Movement to Contact
2. Date:_____
3. M16/5.56mm/M60/7.67mm
4. 1:25,000

Prepared by:

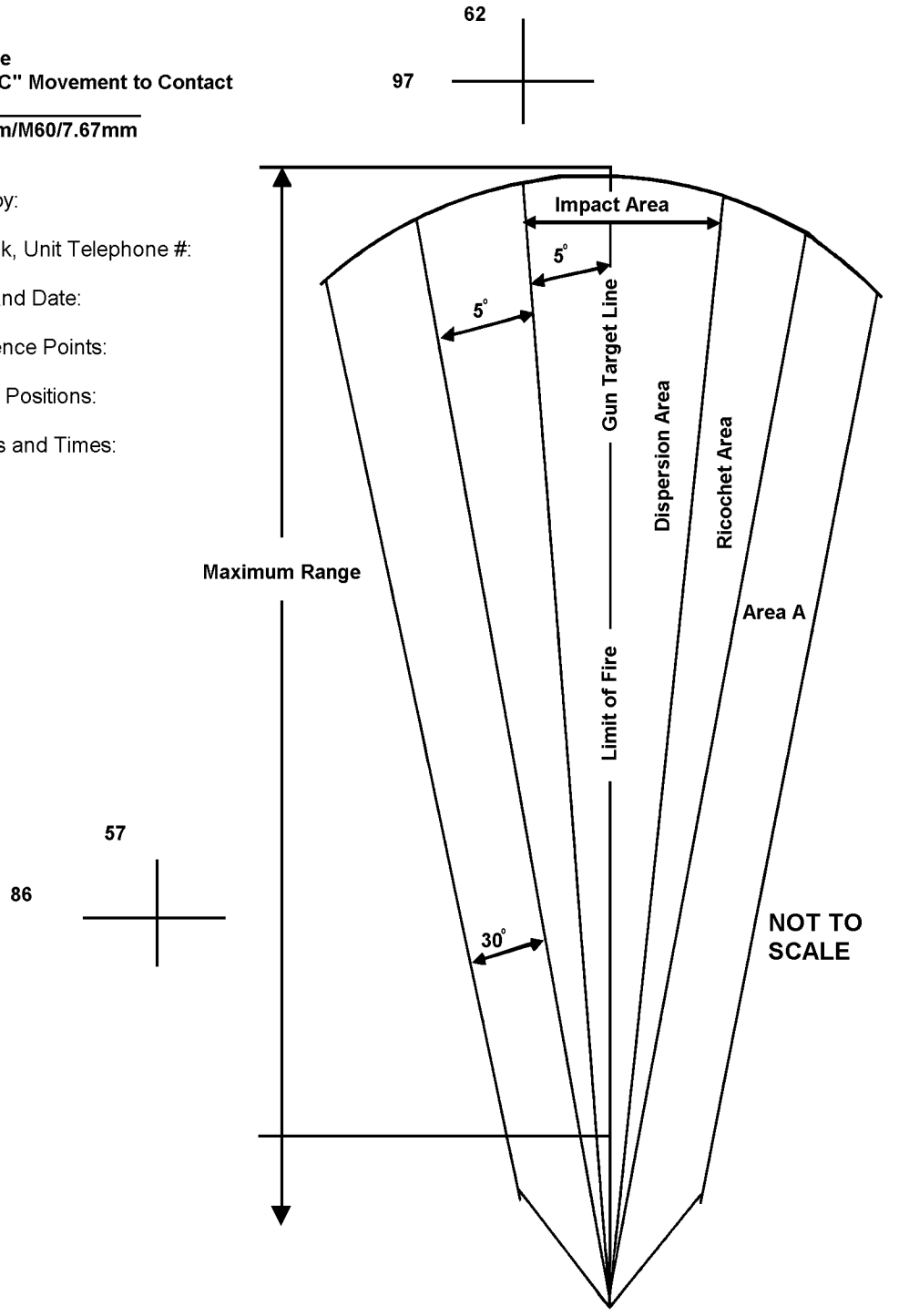
5. Name, Rank, Unit Telephone #:

6. Signature and Date:

7. Grid Reference Points:

8. Roadguard Positions:

Firing Dates and Times:



Surface danger zone for single small arms weapons firing at fixed group targets

Figure E-1. Sample overlay

Appendix F
Targets

F-1. Electrical targets

a. Target devices installed on hard-wired electrical ranges are managed and maintained by range maintenance. Using units will not attempt downrange repair or adjustment of these devices.

b. Radio-controlled and manually-operated target devices for use on special firing courses are requested from range control. Units must arrange for pickup, issue, emplacement, and return of these devices. Range-maintenance personnel will provide technical assistance in the setup of radio-controlled target devices on ranges. Units requiring this assistance must submit their requests 10 working days before the scheduled training event.

c. The pop-up ability of the targets on electrical ranges is adversely affected by low temperatures and the presence of snow and ice. Before activating the targets, the using unit will open all snow covers and remove any snow that has accumulated on the targets or mechanisms. Failure to do this will cause equipment damage for which the unit will be held responsible.

d. The range OIC and a range-control representative will ensure all targets are functioning properly. If at any time during the course of firing a target fails to operate, the range OIC will determine if training can be conducted using the lanes that are fully operational or request the range be made 100 percent operational for the continuation of training.

e. Chemical lights will not be attached to the targets or target mechanisms.

F-2. Standard paper targets

a. Target sheds on established ranges are stocked with paper targets, frames, and staple guns. The using units will resurface the targets after the completion of firing.

b. Targets required for a special firing course will be requested, in writing, 10 working days before the scheduled training event.

c. Range control can fabricate silhouette and three-dimensional wood targets, full-size or scaled for live-fire training events. Orders for large targets or large amounts of special targets will not be accepted less than 30 duty days before firing. Unit assistance may be required.

Glossary

Section I
Abbreviations

1LT ..... first lieutenant

AR ..... Army Regulation

AT4 ..... Antitank 4

CALFEX ..... combined arms live fire exercise

CDS ..... container delivery system

chap ..... chapter

CPT ..... captain

DA ..... Department of the Army

DPTSM ..... Directorate of Plans, Training, Security, and Mobilization

DPW ..... Directorate of Public Works

DTA ..... Donnelly Training Area

DZ ..... drop zone

DZSO ..... drop zone safety officer

FAA ..... Federal Aviation Administration

fig ..... figure

FM ..... Field Manual or, in reference to radios, Frequency Modulation

FRA ..... Fort Richardson, Alaska

FWA ..... Fort Wainwright, Alaska

HATR ..... Hazardous Air Traffic Report

HC ..... Hexachloroethane

HE ..... high explosive

ITAM ..... Integrated Training Area Management

kg ..... kilogram

LAW ..... light antitank weapon

LTC ..... lieutenant colonel

MARKS ..... Modern Army Recordkeeping System

MEDEVAC ..... medical evacuation

mm ..... millimeter

MOS ..... military occupational specialty

MOUT ..... military operations in urban terrain

MSG ..... master sergeant

NBC ..... nuclear, biological, and chemical

NCO ..... noncommissioned officer

NCOIC ..... noncommissioned officer in charge

OIC ..... officer in charge

OP ..... Observation Post

para ..... paragraph

POL ..... petroleum, oils, and lubricants

RSO ..... range safety officer

SABOT ..... 81mm Mortar M1 training device

SFC ..... sergeant first class

SGT ..... sergeant

SOP ..... standing operating procedure

SSG ..... staff sergeant

TA ..... training area

TM ..... technical manual

TNT ..... Trinitrotoluene (a general purpose explosive)

TP ..... training practice (inert projectile)

USARAK ..... United States Army Alaska

Section II
Terms

Approved overlay
An overlay (tracing paper/acetate) authenticated by the range utilizations or range facility manager, containing a surface danger zone for weapons firing and other graphical training descriptions as required

by this regulation plus marginal information shown in appendix E. All overlays will be 1:50,000 scale and submitted in triplicate to range control.

Cease-fire
A command given by anyone observing an unsafe firing condition on any training complex to immediately terminate an active (hot-wet) firing status of a weapon system(s).

Cease-fire line

a. A line identified on the ground and on an approved overlay at which troops involved in a live-fire exercise must cease firing and clear weapons.

b. A line at the down-range end of an aerial gunnery-firing lane, identified on the ground and on an approved overlay, at which aviators cease-fire and disarm weapons. Also known as the disarm line.

Check-fire
A temporary cessation of firing imposed on a unit because of an unsafe condition or to accommodate other activities, or at unit request for meals, changing of the range officer in charge/range safety officer, etc.

Combat control team
United States Air Force personnel trained to identify, mark and control, drop, landing or extraction zones.

Cold status
The condition of that part of the range complex occupied by a unit not conducting training. For example, a unit has completed training and is waiting to be cleared off the range by range control inspectors.

Controlled firing area
An area established by the FAA in which ordnance firing is conducted under conditions controlled by the using agency. As part of this responsibility, the using unit must ensure firing will cease before aircraft penetrate the controlled firing area.

Daily range schedule
A list of scheduled ranges, facilities, and training areas for a given day, prepared by range control, and published in the weekly bulletin. The daily range schedule meets the AR 385-63 requirement for 24-hour notice of firing.

Drop zone safety officer
The safety certified individual in charge of a drop zone during a personnel drop (DZSO).

Dud
Explosive ordnance which has been armed and fired but does not detonated.

Explosive ordnance disposal
An ordnance unit that identifies, recovers, and disposes of explosive ordnance.

Hang fire
A delay in the functioning of a propelling charge train at the time of firing. A hang fire is not a dud and will be handled by unit personnel on site per the appropriate weapon manuals.

Hot status
The condition of that part of the range complex occupied by a unit conducting training. For example, a drop zone in use by paratroopers is in hot status.

mils
A unit of measure for angles that is based on the angle subtended by 1/6400 of the circumference of a circle.

Misfire
A complete failure of a loaded weapon to fire, due to firing mechanism or propelling charge explosive train fault. A misfire is not a dud and will be handled by unit personnel on site per weapon manuals.

Military operations area
That vertical and lateral airspace allocated by the FAA to segregate military aviation from other instrument flight rule traffic and to identify the visual flight rule traffic where these military activities are occurring. See AR 95-1 and Department of Defense Flight Information Pamphlet, Area Planning 1, and chapter 10 of this regulation.

Priority
An established rank ordering of units, used to schedule the range/training complex.

Range
A dynamic system composed of people, equipment, and land designed to contain the effects of the weapons and ammunition fired therein. Ranges may be permanent facilities or temporary special firing courses. See appendixes B and D.

Range complex
That portion of the military reservation reserved for training, including ranges, training facilities, training areas, FAA restricted airspace, and military operations areas.

Range officer in charge
The safety certified individual in charge of a range or training facility. Indirect-fire range officers in charge must also be command safety certified. To become certified, individuals must attend the range control safety briefing and receive a passing score on the range safety certification test.

Range safety certification program
A program consisting of range safety briefing(s), an open-book, range-safety examination, range certification rosters, and a range safety certification card administered by range control.

Range safety officer
The safety certified individual in charge of safety on a range or training facility. The range safety officer will have no other duties during firing. Indirect-fire range safety officers must also be command safety certified.

Restricted airspace
That portion of United States airspace allocated for indirect-fire, aerial gunnery, parachute, and aviation training. No aerial gunnery or indirect-fire weapons may shoot from outside the restricted airspace unless specifically approved by the FAA.

Special firing course
Any firing difference from the designated purpose of an established range or not on an established range. See chapter 9 and appendix C.

Surface Danger Area E

a. The danger area located immediately in front of an indirect-fire firing position. The size of Surface Danger Area E will vary according to the caliber of the weapon fired and the ammunition. It is an area of variable danger from overpressure, noise, ground and muzzle debris, or other potential injury related to weapons firing. Since Surface Danger Area E is an area of variable hazards, nonparticipating personnel

are prohibited out to a 350-meter distance from an approved firing position. This does not apply to weapon crews firing from an approved tactical configuration and operational personnel involved in the firing exercise with a valid need to enter this area as approved by the post commander.

b. During firing, personnel or vehicles will not be permitted inside Surface Danger Area E. Access to roads passing through Surface Danger Area E must be controlled by the firing unit.

Start-fire line

a. A line identified on the ground an on an approved overlay at which troops involved in a live-fire exercise may unlock weapons and commence firing.

b. A line on an aerial gunnery lane, identified on the ground and on an approved overlay, at which aviators may arm weapons circuits and commence firing.

Surface danger zone
An area calculated from data provided in AR 385-63 that will contain the effects of given weapons fire. The surface danger zone consists of several sub-areas, which are defined in the glossary of AR 385-63.

Training area
A numbered subdivision of the range complex used primarily for nonfiring maneuver training.

Training facility
Facilities on, or portions of, the range complex used for training that does not include weapons live fire. See appendix C.