

DEPARTMENT OF THE ARMY
Headquarters, I Corps and Fort Lewis
Fort Lewis, Washington 98433-9500

FL Regulation
350-30

29 March 2000

Training
FORT LEWIS RANGE REGULATIONS

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This regulation supersedes FL Reg 350-30, 1 Oct 85, FL Reg 350-33, 1 Jun 94, and FL Reg 350-34, 17 Jul 95

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CHAPTER 1

GENERAL

1-1. PURPOSE. This regulation sets policy and procedures for using the Fort Lewis range complex; implements AR 210-21, AR 385-62, AR 385-63, and AR 385-64; and complements FL Regs 200-1, 350-1, and 350-2. It supersedes previous editions of FL Reg 350-30, FL Reg 350-33 (Land Use Policy) and FL Reg 350-34 (Scheduling of Ranges and Maneuver Land at Fort Lewis and Yakima Training Center).

1-2. APPLICABILITY AND SCOPE. This regulation governs scheduling and control of Fort Lewis ranges, non-firing training facilities, maneuver land, and FAA special use airspace. It applies to all range complex users, military and civilian. For guidance on scheduling and use of Yakima Training Center, see FL Reg 350-31 (Yakima Range Regulations).

1-3. RESPONSIBILITIES. Fort Lewis range complex users must be familiar with this regulation. Commanders and persons in charge of training and other permitted activities must ensure compliance.

1-4. SAFETY POLICY AND RISK MANAGEMENT.

a. Safety is a command responsibility. Range Control and the Command Safety Office provide safety oversight in support of commanders.

b. AR 385-63 is the primary reference for live fire operations. AR 385-62 applies during missile firing. Range and firing point OICs and RSOs must be familiar with portions of those regulations covering their events.

c. The goals of the Fort Lewis range safety program are:

- (1) Enhance safe, realistic live fire training.
- (2) Prevent fratricide in live fire training and combat.
- (3) Protect civilian and military populations who live and work in the vicinity of live fire ranges.
- (4) Protect the environment from the effects of live fire training.

d. The Risk Management Process, described in FL Pam 385-1-1, FM 100-14, FM 25-101 and FM 101-5, will be used to manage risks during all training.

e. Units using live fire ranges will employ Risk Management procedures to identify operational hazards and implement appropriate controls to minimize training mission risk. Formal risk management documentation is required on major training exercises, such as combined arms live fire exercises (CALFEX), prior to execution.

1-5. AUTHORIZED USE.

a. Range complex use requires scheduling or a use permit. For non-military use, see Chapter 15. Recon by military personnel for future training is authorized after check-in at Range Operations, Bldg 4074.

b. Trainers must notify Range Operations of unlawful or suspect acts, such as wood cutting, brush gathering, dumping, dirt bike or 4-wheel-drive vehicle driving, persons discharging fire arms, or abandoned vehicles or remains of vehicles. Range Operations will inform the Military Police.

1-6. USE REPORTING.

a. Use of ranges and non-firing training facilities is recorded during the opening radio call, per the checklist issued by Range Operations. Units using maneuver training areas must establish a training unit TOC for emergency contact per Para 1-9.

b. Use of Training Areas (TAs) is reported by the training OIC, in person or by telephone (967-6371/7974) or radio (FM 41.10/40.20, VHF 141.125), prior to 1200 each day that a TA is occupied. Range Operations will provide updates on fire hazard conditions. During initial check-in at Range Operations, the training OIC must identify the unit TOC location, either in garrison or field, by building number or UTM grid, and per Para 1-9 must also provide the TOC emergency contact phone number.

1-7. OFFICER IN CHARGE (OIC) AND RANGE SAFETY OFFICER (RSO) CERTIFICATION REQUIREMENTS. OICs and RSOs are certified by the unit commander or agency head and briefed by Range Control. Rank requirements are at Table 1-1.

a. Direct-fire ranges and non-firing facilities:

(1) The OIC/RSO is instructed by the unit or agency on this regulation, training doctrine, the duties of the position, and the activity to be conducted.

(2) The commander or agency head completes a certificate per Figure 1-1 and sends the original to Range Control. The certificate is valid for six months from date, and only one per unit will be kept at Range Control.

(3) Certified OICs and RSOs must receive the Range Control Safety Briefing at Range Control (Bldg 4074, Stryker and Kaufman Avenues, Main Post). It may be seen 24 hours per day without advanced notice, and is valid for 6 months. OICs and RSOs also view an environmental video at the same time.

b. Indirect fire:

(1) Field artillery and mortar units must have a Command Safety Certification Program for the indirect fire chain of command, per AR 385-63.

Certification is required for firing battery commanders, battery XOs, Paladin platoon leaders, mortar platoon leaders, fire direction officers, chiefs of firing battery, gunnery sergeants, mortar platoon sergeants, artillery section chiefs, mortar squad leaders, and fire support team personnel.

(2) A record of certification will be kept at the unit. Indirect fire OICs/RSOs must be certified per Figure 1-2 by the battalion commander or separate company/battery commander. Only the commander may sign. Safety briefings and certificate handling are per Para 1-6a.

(3) Command Safety Certification programs must be reviewed before the first live fire event by the Command Safety Office and the Range Officer. Programs will be filed at Range Control and must be reviewed annually thereafter.

c. Attendance at the Safety Briefing is recorded by Range Operations on the unit certificate.

d. Persons involved in accidents or incidents will be suspended from OIC/RSO duties during investigations.

1-8. RANGE COMPUTER OPERATOR CERTIFICATION. Units provide operators for computer-driven ranges. Range Control conducts classes to certify unit operators. Priority for class attendance is to units with a computer-driven range scheduled in the next calendar month. Stand-bys are taken until the class is full. Certification is valid for six months, at which time the operator must attend a recertification class. Class dates, times, and locations are announced to units by email. Range Control maintains a master list of personnel certified to operate range computers.

1-9. RANGE COMMUNICATIONS AND UNIT EMERGENCY CONTACT CAPABILITY.

a. Units training anywhere on the range complex must have at least one FM or VHF radio capable of netting with Range Operations (FM 41.10/40.20, VHF 141.125) for check-in, checkout, and emergencies. Range Operations is the net control station. Aircraft must communicate with GAAF Flight Operations Center (FM 34.60, VHF 141.5, UHF 393.3) per FL Reg 95-1.

b. The above frequencies are reserved for range and aviation safety nets. Unit business or internal unit radio checks are prohibited on these nets.

c. Some activities require constant monitoring of the Range Safety Net. See Appendices B and C, and facility SOPs, for specific guidance by site. Range Operations initiates periodic radio checks with these locations. Units not responding will be visited by a Range Inspector. If a second visit is required for non-response not caused by equipment failure, the unit must replace the OIC.

d. Units using training areas (TA) must monitor Range Operations by FM or VHF radio during their entire occupation period. Monitoring may be by individual

element, field TOC, or garrison TOC. When a garrison TOC monitors, it must have direct radio contact with field units. Off post units, whether Active, Reserve, other services, or foreign forces, must also establish a TOC, either in garrison or field, and monitor Range Operations. This TOC must have a telephone connection, hard-wired or cellular, accessible to home station personnel to pass emergency and administrative traffic directly to the unit.

e. During initial check-in at Range Operations, unit representatives must identify TOC location, either in garrison or field, by building number or UTM grid, and must also provide the TOC contact phone number. Range Operations will pass this contact phone number to the I Corps FOD/EOC, MP Desk, PAO, and other agencies usually called by home station and concerned family members with administrative or emergency traffic.

f. The Directorate of Information Management (DOIM) telephone cable system extends to most ranges, facilities, and training areas. All DOIM telephone services are not available at all sites on the range cable system. Telephone protector terminals (mag drops) will be installed by DOIM in response to a request memo prepared by the unit. The memo must be delivered to Bldg 6071, Colorado Avenue near the PX main gas station, at least 15 working days prior to the event. DOIM telephone personnel will provide service to the existing mag drop closest to the facility or unit field location. The unit then completes the connection with field wire. Independent unit taps into the DOIM range cable system are prohibited. The request memo must contain the following information:

- (1) Unit requesting service.
- (2) Service required date.
- (3) Unit POC name and telephone number.
- (4) Training Area or Range number for each line requested.
- (5) Grid coordinates of unit location.
- (6) If known, grid coordinates and terminal number of nearest mag drop.
- (7) Type of service required (dial line, class of service, mag).
- (8) Unit IMO signature.

g. Range Operations will not pass administrative messages between garrison and field. Units must use internal radio, or the DOIM Range Switch at telephone 967-4151. Callers must know the range drop number of the field location, which is listed on the DA Form 3938 that activated the service.

1-10. EMERGENCY CHECKFIRE SIGNAL. Should Range Operations need to cease-fire all ranges, the command "Check Fire, Freeze!" will be given over the Range Operations radio net. All units will immediately cease firing and move away from weapons. OICs and RSOs will secure weapons, ammunition, and propellants, and ensure settings on sights and other fire control equipment are not changed. Range Operations will verify cease-fires with a net call to hot ranges and firing points.

1-11. MEDICAL AND LIFEGUARD SUPPORT.

a. Basic medical support on the range complex is provided by soldiers qualified in Common Task first aid skills. Non-military range complex users must have persons qualified in basic first aid.

b. Unit commanders provide MOS-qualified military medics, combat lifesavers, or EMT-qualified personnel when required by doctrinal publications governing the training to be conducted or by unit policy. These personnel must be currently certified and equipped with an aid bag.

c. Water operations require lifeguards and safety boats. See FL Reg 350-2 (Training Support).

1-12. ACCIDENTS AND INCIDENTS.

a. All accidents or incidents on the range complex must be reported to Range Operations immediately (phone 967-7974/6371, FM 41.10/40.20, VHF 141.125). Units must also comply with regulatory and unit SOP guidance on reporting accidents and incidents through operations, personnel, and logistics channels. Control of weapons, ammunition, and equipment must be maintained during emergency response.

b. Minor injuries that do not threaten life, limb, or sight will be given basic first aid and moved to Madigan Army Medical Center by unit transportation. More serious injuries will be evacuated by air or ground ambulance per medevac information below. Medevac request guidance is included in all SOPs issued by Range Control.

c. Accidents or incidents resulting in serious injury or fatality, causing damage to equipment or vehicles, or involving weapons or ammunition, will be investigated by law enforcement, safety, logistics, or ammunition surveillance agencies. Except for actions required to fight fire and treat casualties, accident or incident sites must be secured and all equipment, vehicles, and personnel kept in place until released by appropriate authority.

1-13. MEDEVAC. Should an accident or incident result in injury that threatens life, sight, or limb, the site OIC will call a check-fire, ensure first aid is initiated, and request air evacuation as follows:

a. Call Range Operations (phone 967-6371/7974, FM 41.10/40.20, VHF 141.125), inform the Range Operations Duty NCO that a medevac is needed, and provide the following:

- (1) Unit and name of person making request.
- (2) Site name/grid coordinates.
- (3) Number of patients and nature of injury.
- (4) Unit radio frequency and call sign, if additional unit radios are on site.
- (5) Hazards to aircraft.
- (6) Method of marking the landing zone.

b. The site OIC will not break contact with Range Operations until released, and will not disturb the area except to treat injuries or fight fire.

c. If Range Operations cannot be reached, the OIC should contact 54th Medical Company (FM 38.90, callsign GRAY DUSTOFF, phone 967-5405/2427). These are 54th Med Co emergency lines and will not be used for routine business.

d. Weather at Fort Lewis may prevent air evacuation. The OIC should not delay ground evacuation if flight conditions are marginal. If 54th Med Co cannot respond, Range Operations will request Madigan ground ambulance and inform the OIC.

1-14. FIELD UNIFORM AND HEARING PROTECTION.

a. Military training on the range complex must be conducted in helmet and LBE/LBV, as a minimum. The rule is "Train as you will fight."

b. Hearing protection is required at any event involving live fire of any caliber, explosives, blanks, or exploding pyrotechnics.

1-15. SPEED LIMITS. The speed limit on paved or unpaved range roads is 25 mph unless otherwise marked. Road conditions may require lower speeds. Vehicles overtaking or meeting marching troops must slow to 10 mph.

1-16. LIGHT LINE. During hours of darkness, all unpaved roads in TAs must be traveled in blackout or parking lights. Exceptions are:

- a. Emergency-response vehicles.
- b. Night Vision Driving (NVD) convoys. See Chapter 14.

c. Vehicles carrying troops to or from training facilities located in TAs. Such vehicles must observe the requirements in Chapter 14.

d. Vehicles on the public routes listed in Chapter 14, or on the high-speed portion of East Gate Road west of State Route 507.

1-17. SEASONAL FIRE HAZARDS AND RESTRICTIONS. Seasonal forest fire hazards restrict use of tracer and other potentially incendiary ammunition. These restrictions do not apply to the Artillery Impact Area, including all indirect firing points and Ranges 50 through 81. Units are informed of restrictions during daily range and training area opening call-ins. Regardless of season, trainers must ensure flame-producing pyrotechnics are not used on or near fuels that may start a forest fire. Troop fires are for food preparation only. Throwing away burning materials is prohibited. Fire hazard levels posted at Range Control and announced to units during check-in calls are:

a. Level I: Tracers, pyrotechnics, and troop fires authorized.

b. Level II: Tracers outside the Artillery Impact Area (Ranges 50-81), and any pyrotechnics use prohibited. Troop fires allowed on roads, gravel or other cleared surfaces only.

c. Level III: Tracers outside the Artillery Impact Area (Ranges 50-81), pyrotechnics, and troop fires prohibited.

1-18. PYROTECHNICS AND FIRES.

a. OICs must be alert to forest fire hazards associated with pyrotechnics. Fire hazard levels and restrictions are above.

b. Forest fires will be reported to Range Operations immediately (FM 41.10/40.20, VHF 141.125, phone 967-6371/7974). Troops on the scene will attempt to control fires, as long as personnel are not endangered.

c. Troop fires for food preparation in TAs are prohibited during the fire danger season, which is 1 June through 31 October annually. This season may be extended dependent on rainfall. At other times troop fires are authorized at the discretion of the commander. Trees may not be felled for troop fires. Fires must be completely out before the unit leaves the area.

1-19. GATES.

a. Gates are installed around the cantonment areas and at some Training Area access points.

b. Gates around the cantonment areas and on the Installation perimeter are controlled by the Military Police. Information on closure and access is available from the MP Desk.

c. Gates between Training Areas and into range and impact areas are controlled by Range Operations. A list of gates, controls, and status is available from Range Operations.

1-20. PRIVATELY OWNED VEHICLES (POVs). Routine use of POVs as transportation to training on the range complex is prohibited. Range complex POV passes are issued by Range Operations for leaders' recons or visits to training during daylight hours when military vehicles are not available. Units without access to military vehicles may request use of POVs in support of major events by memo to the Range Officer. Military weapons and ammunition may never be transported in POVs.

1-21. UNIT OR EVENT-DRIVEN CONSTRUCTION. Construction on or additions to ranges and facilities must be approved by Range Control. Barriers and emplacements must be removed after use. Some construction may require environmental consideration.

1-22. MAPS.

a. The current Military Installation Map (MIM) for Fort Lewis is Sheet V791S, Edition 4-DMA, scale 1:50,000, based on the 1983 North American Datum.

b. Symbols overprinted by DMA on the Fort Lewis MIM are accurate to 100 meters and are not to be used for survey, fire control, or other critical safety or location functions.

c. Fort Lewis maps are obtained per FORSCOM Suppl 1 to AR 115-11. For details call the DOL Map Warehouse, 967-7777.

1-23. RANGE CONTROL LOCATION UPDATE. The location of Range Control on the Edition 4-DMA MIM, at ET317154, is out of date. Range Control is now in Bldg 4074 at the intersection of Stryker and Kaufman Avenues, ET28751520.

1-24. OVERWATCH AND ANNUAL CLEANUP. FL Reg 210-10 assigns ranges, facilities, and TA overwatch to units. Units conducting overwatch maintenance or police, or semiannual cleanup, must schedule per Chapter 4.

1-25. SMOKING AND ALCOHOLIC BEVERAGES.

a. Smoking areas on training sites will be designated by the OIC, at least 20 meters from ammunition, pyrotechnics, and other flammables. During the fire hazard season from June through October, smoking on the range complex is prohibited except on roads or other specially prepared areas free of flammable materials.

b. Alcoholic beverages are prohibited on the range complex except as described in FL Reg 210-1. Ranges, facilities, or training areas may not be scheduled for picnics or social events.

1-26. SPECTATORS AND FAMILY MEMBERS.

a. Spectators or family members on training sites must be coordinated with Range Operations. Minors may not fire weapons. Ranges, training facilities, and training areas may not be scheduled only for family events.

b. Spectators must be controlled by the OIC, kept clear of hazard areas, briefed on safety, and provided hearing protection.

1-27. OFF-POST TRAINING.

a. Training outside the boundaries of Fort Lewis is scheduled per FL Reg 350-2.

b. All highway and railroad bridges, overpasses, and power line towers on or near Fort Lewis are off limits to training.

1-28. RECOMMENDATIONS FOR CHANGE. Range complex users are encouraged to comment on this regulation to Commander, I Corps and Fort Lewis, ATTN: AFZH-PTM-R, Box 339500 MS16C, Fort Lewis, WA 98433-9500.

TABLE 1-1

OFFICER-IN-CHARGE (OIC) AND
RANGE SAFETY OFFICER (RSO) REQUIREMENTS

Weapon System or Device	OIC	RSO
Practice hand or rifle grenade; sub-cal devices; lasers; firing devices or simulators; trip flares; small arms; machineguns.	SSG & up	SSG & up
Chemical training munitions and smoke.	SGT & up	SGT & up
Aerial gunnery; air defense weapons; flame throwers; HE hand or rifle grenades; mines and demolitions; mortar; recoilless weapons; rockets.	SFC & up	SSG & up
Artillery	SFC & up	SFC & up
Live-fire exercises using organic weapons.	SFC & up	SSG & up
CALFEX using external fire support.	Officer	Officer

NOTE 1: OICs and RSOs must be qualified on the weapon or device being used and certified per this chapter.

NOTE 2: NBC OICs and RSOs must hold an NBC MOS or have graduated from an installation or command NBC school.

NOTE 3: For activities not listed above, the unit commander determines the grade of the OIC and RSO based on individual qualification and unit or command policy.

(Unit Letterhead Required)

MEMORANDUM FOR DPTMS Range Division, ATTN: Operations Officer

SUBJECT: Certificate of Qualification for B Battery, 5th Battalion, 32d Field Artillery

1. Reference FL 350-30, (I Corps and Fort Lewis Range Regulations).
2. The following personnel are trained per the reference and are certified to perform duties listed. Request Range Control Safety Briefing and clearance to receipt for and operate training facilities as OIC or RSO.

<u>NAME</u>	<u>RANK</u>	<u>SSN</u>	<u>CERTIFICATION</u>
Ayers, Pat R.	SSG	213-56-4496	See para 3
Conrad, Bryan	CPT	050-11-2246	OIC/RSO, NBC (graduate of Fort Polk school), plus Para 3
Larson, Dale M.	SFC	876-54-3210	RSO only, Rifle, pistol, NBC (graduate of USAREUR school)
Palmer, Elizabeth	SGT	838-02-1098	RSO only, NBC (MOS 54E)
Thurman, Ed E.	1LT	012-34-5678	OIC/RSO, Rifle, pistol, Recondo
Simpson, Rock E.	SFC	112-54-0987	OIC/RSO, Rifle, pistol, NBC (MOS 54E)

3. (Commanders may use this paragraph for a comprehensive list of weapons, skills, or facilities to avoid excessive bulk in the Para 2 certification column above or to list special qualifications or limitations.)
4. This certificate is effective for one year from date or until superseded, and supersedes all previous certificates from this unit.

SIGNATURE OF UNIT COMMANDER, OR
INDIVIDUAL ON ORDERS AS ACTING
COMMANDER

NOTE: Letterhead required. Only the Commander may sign, or a person on orders as Acting Commander.

NOTE: Para 3 should contain all applicable information.

NOTE: NBC qualification must be indicated either by MOS or by school attended.

Figure 1-1

S A M P L E

(Unit Office Symbol)

(date)

MEMORANDUM FOR RANGE OFFICER

SUBJECT: Indirect Fire Command Safety Certificate for (Unit)

1. Reference:

a. AR 385-63, Policies and Procedures for Firing Ammunition for Training, Target Practice and Combat.

b. FL Reg 350-30, I Corps and Fort Lewis Range Regulations.

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

NAME	RANK	SSN	UNIT	DUTY
WATSON, C.E.	CPT	123-45-1234	A/3-82	FA OIC, FP RSO
REGAN, MIKE	1LT	123-45-6789	C/3-82	FP RSO
MACKEY, R.	SFC	123-45-6789	C/3-82	FA OIC, FP RSO

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MIKOLASHEK, P.T.	1LT	123-45-6789	D/4-31	Mortar OIC, RSO
GRUBB, R.A.	SFC	123-45-6789	D/4-31	Mortar RSO

3. This certificate is effective for six months from date, or until superseded.

DAVID CHAUNDLER
LTC, FA
COMMANDING

Figure 1-2

CHAPTER 2

Definitions

- 2-1. APPROVED OVERLAY. A piece of tracing paper authenticated by the Range Officer or Range Operations Officer, containing a surface danger zone for weapons firing or other graphical training descriptions, and marginal information.
- 2-2. CHECK-FIRE. A cease fire imposed on a unit or units because of an unsafe condition or to accommodate other activities.
- 2-3. COLD STATUS. The condition of a part of the range complex occupied by a unit not conducting training. For example, a unit on a range under administrative check-fire for a meal is in cold status.
- 2-4. DAILY RANGE SCHEDULE. A list of scheduled activities on the range complex for a given day, prepared at 1200 two working days prior. The Daily Range Schedule meets the AR 385-63 requirement for 24-hour notice of firing and is distributed by Email to Fort Lewis units.
- 2-5. DEMOLITIONS EFFECTS SIMULATOR (DES). A device that provides realism in conduct of demolitions training without extended safety distances. DES uses live detonating cord, fuzes, and blasting caps but eliminates the primary explosive.
- 2-6. DROP ZONE SAFETY OFFICER (DZSO). The safety-certified individual in charge of a drop zone during a personnel drop.
- 2-7. DUD. Explosive ordnance that has been armed but not detonated. Also referred to as unexploded ordnance (UXO). Any object that appears to be a dud is presumed to be one. If an item of ordnance has not been fired or armed, it is not a dud. See Hangfire and Misfire.
- 2-8. EXPLOSIVE ORDNANCE DISPOSAL (EOD). An ordnance unit that identifies, recovers and disposes of explosive ordnance.
- 2-9. HANGFIRE. A delay in function of a propelling charge train at the time of firing. A hangfire is not a dud and will be handled by unit personnel on site per weapon manuals.
- 2-10. HOT STATUS. The condition of a part of the range complex occupied by a unit conducting training. For example, a drop zone in use by paratroops is in hot status.
- 2-11. IMPROVISED EXPLOSIVE DEVICE (IED). A demolition charge assembled from non-DODIC materials. IEDs are authorized by TRADOC for Special Forces reclassification training.

2-12. LIVE-FIRE EXERCISE (LFX). Firing different from the designed purpose of an established range, or conducted off a scorecard-type range. Requires a Range Control contract. See chapter 9.

2-13. MISFIRE. A complete failure of a loaded weapon to fire, due to firing mechanism failure or fault in the propelling charge explosive train. A misfire is not a dud and will be handled by unit personnel per weapon manuals.

2-14. MINIMUM SAFE DISTANCE (MSD). The nearest distance that unprotected personnel not involved in firing may stand to a mortar tube in hot status.

2-15. OFFICER-IN-CHARGE (OIC). The safety-certified individual in charge of a training facility.

2-16. RAINIER MILITARY OPERATIONS AREA (RAINIER MOA). The vertical and lateral Fort Lewis airspace allocated by the FAA to segregate military aviation from other IFR traffic, and to identify to other VFR traffic the location of these military activities. See AR 95-1 and Area Planning 1, DoD Flight Information Pamphlet (FLIP), and chapter 11, below.

2-17. RANGE. A training facility on which live fire is conducted. Ranges may be permanent facilities or temporary sites. See appendix B.

2-18. RANGE COMPLEX. The portion of Fort Lewis reserved for training, including ranges, training facilities, training areas, FAA Restricted Airspace R6703, and the Rainier MOA. See appendices B, C, and D.

2-19. RANGE SAFETY OFFICER (RSO). The safety-certified individual in charge of safety on a training facility. The RSO has no other duties during the training event.

2-20. RESTRICTED AIRSPACE R6703. United States airspace allocated to Fort Lewis by the FAA for indirect-fire, parachute, and aviation training. R6703 is divided into areas A, B, C, and D. No indirect-fire weapons may shoot from outside R6703. See chapter 11.

2-21. SEIBERT STAKES. Metal or plastic poles with red, yellow, and white bands at the top, emplaced to identify selected environmentally sensitive areas. Vehicle movement, digging, and bivouac are prohibited inside Seibert-staked areas.

2-22. SURFACE DANGER ZONE (SDZ). An area calculated from data provided in AR 385-62 and AR 385-63 which will contain the effects of given weapons fire.

2-23. TRAINING AREA. A numbered subdivision of the Fort Lewis range complex used primarily for non-firing maneuver training. See appendix D.

2-24. TRAINING FACILITY. Structures on or portions of the range complex used for training that do not include weapons fire. See appendix C.

CHAPTER 3

ENVIRONMENTAL CONSIDERATIONS

3-1. GENERAL. Fort Lewis exists to support Active and Reserve Component military training. Environmental constraints conserve the range complex and ensure compliance with Federal laws and Army regulations. Constraints are managed by Range Control and the Public Works Environmental and Natural Resource Division (ENRD). Unit commanders prevent environmental damage.

3-2. POLICY. Army environmental practice comes from the National Environmental Policy Act (NEPA), which commits Federal government agencies to consider effects of proposed actions during decision processes. When an action will significantly affect the environment, the consideration process must be documented. Fort Lewis policy is in FL Reg 200-1, which also contains guidance on environmental compliance during field training in appendix C.

3-3. ENVIRONMENTAL REVIEW AND MANEUVER DAMAGE CONTROL.

a. Units must appoint and train Environmental Compliance Officers and Hazardous Waste Technicians per FL Reg 200-1. Trainers must include the impact of training during planning. Areas of specific concern are listed below, and are shown on the Fort Lewis 1:50,000 Environmental Coordination Map, available from the DOL Map Warehouse.

b. Range Control reviews resource requests for possible environmental impact with assistance from Public Works Environmental and Natural Resources Division (PW ENRD).

c. If documentation is needed, the trainer proposing the activity prepares and coordinates. Range Control and PW ENRD provide technical expertise.

d. Maneuver plans must include protection of sensitive areas and damage repair. This includes removal of all barriers and barrier material, refilling of tactical excavations, and removal of trash and waste.

e. Damage outside that approved in the training plan must be reported immediately to Range Operations (FM 41.10/40.20, VHF 141.125, phone 967-6371/7974).

3-4. ENVIRONMENTAL CONCERNS. Environmental concerns on Fort Lewis are:

a. Live-fire training noise, addressed as follows:

(1) Normal hours for firing demolitions, field artillery, and mortars are 0700-2200 daily. Exceptions are approved by DPTMS and are requested in Blocks 5b

and 6 of HFL Form 473 during scheduling. Exceptions require ten duty days to process.

(2) Demolitions charge sizes are limited per chapter 10.

(3) There are no limits on small arms firing or hand-launched blast simulators, except during forest fire hazard periods. See chapter 1.

b. Riot agents and smoke, addressed in chapter 12.

c. Protection of salmon, water quality, and riparian habitat in Muck Creek (ET 282049-ET 439068), addressed through limits on ammunition impact and through use of authorized fording sites. Locations of fords are in chapter 14. Artillery or mortars must not impact within 225 meters of the creek bed.

d. Protection of eagles roosting along lower Muck Creek (ET 282049 to ET 324056), addressed through limits on direct-fire small arms in the South Impact Area, except Ranges 87, 91, and 93, from 1 December through 31 March annually, and by airspace restrictions along the Nisqually River-Muck Creek corridor. See appendix B and FL Regs 95-1 and 420-5.

e. Protection of endangered plant species, reforestation zones, and known archaeological sites, addressed as follows:

(1) Tracked vehicles may not leave the main roads on the prairies in TA 21 and 22, including Darby, Merrill, and El Guettar Drop Zones. Off-road vehicular operations are prohibited in all timber reforestation areas, research natural areas, and in other specially designated areas marked by Seibert stakes, signs, and/or fencing. Non-military motorcycles or dirt bikes must remain on hard surface roads.

(2) A PW dig permit is required for all digging or trenching with mechanized equipment. The OIC of digging operations must provide a 1:50,000 scale overlay of proposed ditching or trenching to PW Utilities Division. PW processing of digging permits includes ENRD review. Hand-dug foxholes do not require permits, but all holes must be filled and leveled. Digging is not allowed inside Seibert-staked areas, nor on the prairies in TAs 21 and 22, including Darby, Merrill, and El Guettar Drop Zones.

(3) Units discovering or excavating bones, building foundations, or other signs of human activity must report same to Range Operations for transmission to Public Works.

f. Prevention of spills of hazardous materials and waste, including POL products, fuel, NBC items, field sanitation items, paints, or other chemical items is addressed as follows:

(1) POL and hazardous wastes will never be dumped on the ground. Abandoning any hazardous material or empty container is also prohibited.

(2) Vehicle maintenance may not be done within 100 meters of streams or lakes. Loaded fuel tankers and trailers will not be transported across water during bridging or rafting operations.

(3) Refueling points must be at least 100 meters from water sources. Residue from draining oil, anti-freeze, coolant, or other automotive fluids must be returned to garrison for recycling. POL or hazardous waste spills on the ground or into water sources will be reported immediately to Range Operations (FM 41.10/40.20, VHF 141.125, phone 967-6371/7974). Units discovering spills or abandoned hazardous materials or waste will report the location to Range Operations. Units must not attempt to recover abandoned items without coordinating with PW Environmental Services HAZMAT for proper disposition of items.

3-5. INFORMATION AND ASSISTANCE.

a. PW Environment and Range Control will assist trainers at any stage of planning with advice on possible impact of exercise scenarios.

b. Environmental awareness materials are produced by the Range Control Integrated Training Area Management (ITAM) office and are available on request. These include Soldier-Leader Cards, posters, and leaflets.

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CHAPTER 4
SCHEDULING

4-1. GENERAL.

a. Any use of the range complex must be reserved through the Range Scheduling Section.

b. Good scheduling requires unit training resource personnel know the Commander's intent and are authorized to negotiate alternative sites and dates at scheduling conferences.

4-2. RANGE AND MANEUVER COMPLEX MANAGEMENT.

a. Ranges and capabilities are listed in appendix B. See also chapters 1, 7, 8, 9, and appendix E.

b. Training facilities not intended for weapons live-fire are listed in Appendix C. Occupation, use, and clearance information is contained in Chapter 13, facility SOPs, and appropriate field manuals.

c. Maneuver land is divided into numbered and lettered Training Areas per appendix D and the Fort Lewis 1:50,000 Military Installation Map. Shared use of TAs is the norm at Fort Lewis. Trainers needing sole use of land must coordinate with Range Control and I Corps G3 prior to the Range Scheduling Conference for the period concerned.

4-3. AIRSPACE MANAGEMENT. Fort Lewis military airspace use is governed by FL Reg 95-1 and chapter 11. Aviators must be aware of local airspace rules and restrictions.

4-4. DAILY RANGE SCHEDULE. The Daily Range Schedule is the AR 385-63 24-hour notice of firing, and is published by email two duty days prior to effective date.

4-5. THE SCHEDULING PROCESS.

a. Range Control, in coordination with I Corps G3, hosts Range Scheduling Conferences. Conferences are announced in writing. Priorities are determined by I Corps G3, based on the Corps Master Training Calendar and unit input.

b. Reserve Component trainers may schedule detailed training resource packages for the fifth month out from each Monthly Range Scheduling Conference.

c. MSCs and tenant units must ensure training events are updated on the I Corps Master Training Calendar at least one week before Range Scheduling Conferences.

d. Units must send a representative knowledgeable of the training program and the scheduling process and authorized to make decisions on alternate facilities, areas, or dates. Range Control offers a detailed briefing on the scheduling process for S3s and unit training resource personnel.

e. Units must maintain records on conference bids. Conference time will not be taken for unit repetition of prior requests. Unit training resource managers will verify records, as needed, between Scheduling Conferences.

4-6. MULTIPLE USE OF TRAINING AREAS. All Fort Lewis Training Areas (TAs) are scheduled for multiple units unless sole use is approved by I Corps G3. Unit representatives will be informed of TA coordination requirements during scheduling conferences. The first MSC or tenant unit to schedule into a TA or a training facility in a TA becomes the land coordinator for that TA. All subsequent bids for that TA will be directed to the land coordinator before being accepted. Land coordinator clearance for shared use is required before final scheduling at Range Control. Final approval for a training event rests with Range Control. **It is strongly recommended unit land coordinators use photocopies of the Fort Lewis 1:50,000 MIM or other graphic as a tool in recording land allocations in TAs.**

4-7. SCHEDULING OF RANGE CONSTRUCTION AND REPAIR. Range Control, in coordination with ITAM, PW, Corps of Engineers, or the troop construction unit performing a project, will forecast and block out ranges and facilities for construction and repair using I Corps G3 priority.

4-8. RANGE FACILITY MANAGEMENT SUPPORT SYSTEM (RFMSS). Fort Lewis Range Division has implemented RFMSS to allow electronic access by units to scheduling information. The RFMSS Users' Handbook is distributed during software installation. Resupply of the handbook is available by calling Range Division Automation, 967-1552. Units not yet on RFMSS request installation and training through Range Scheduling.

4-9. PROCESSING OF HFL FORMS 473 and 2035. Units not on RFMSS will schedule using HFL Form 473 (Training Resource Request) and cancel using HFL Form 2035 (Cancellation of Training Facility).

a. HFL Forms 473 may be delivered to Range Scheduling immediately after the Monthly Range Scheduling Conference for that period, but must be submitted no later than D-30 days before the event. Reservations not backed by HFL Forms 473 at D-30 will be voided, opening those facilities/TAs for first-come bookings.

b. Instructions for HFL Form 473 are on the back of the form. Three copies are required; one copy will be returned to the unit with control numbers, coordination requirements, and other Range Scheduling annotations in red ink. HFL Forms 473 for shared-use resources must show coordination with all higher priority units prior to submission. Computer generated HFL Forms 473 may be used, per Director of Information Management (DOIM) procedure.

c. Reservations secured by HFL Form 473 are cancelled by HFL Form 2035. Unit trainers should provide HFL 2035 as soon as the scheduled facility is no longer needed. Cancellation and rescheduling are done through Range Scheduling only; units may not conduct independent internal reallocation of facilities.

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CHAPTER 5
AMMUNITION

5-1. GENERAL.

- a. Ammunition use and field storage at Fort Lewis is governed by FL Reg 700-20.
- b. Ammunition will remain in sealed containers until immediately before firing. Unpackaged ammunition must be protected from the elements. **Precutting charges for mortar or artillery firing is prohibited.**
- c. Ammunition loss must be reported immediately to the Military Police Desk. Units without access to phone service will inform Range Operations by radio (FM 41.10/40.20, VHF 141.125).
- d. Ammunition .50 cal and below found by units on post will be accepted by the ASP, Bldg M001, no questions asked. Ammunition above .50 cal and suspected duds will be left in place and reported to Range Operations immediately. Range Operations will notify 707th Ordnance Company (EOD).
- e. Military ammunition may never be transported in POVs.
- f. Ammunition may never be abandoned, destroyed, concealed, or fired indiscriminately to avoid turn-in.
- g. All residue must be removed from ranges or training sites.
- h. Range OICs training with dud-producing munitions must report total number of duds to Range Operations during close-out calls at the end of each day.
- i. Seasonal fire hazard restrictions are per chapter 1.

5.2. HIGH-HAZARD DUD-PRODUCING MUNITIONS. Weapons firing ammunition that produces high-hazard duds may be fired only on ranges designated for that purpose as follows:

- a. M203 and MK19 40mm HE and HEDP ammunition is fired only on Range 79.
- b. Piezoelectric-fuzed ammunition, including anti-tank HEAT, is fired only on Range 59.

5-3. AMMUNITION PROHIBITED FROM USE DURING TRAINING. Improved conventional munitions (ICM) and sub-munitions and depleted uranium (DU) munitions are not fired at Fort Lewis. There are no exceptions.

5-4. SMALL ARMS AND GRENADES.

a. Live-fire exercises requiring overhead small arms fire must use ammunition identified as cleared for overhead fire by NSN.

b. Blank and ball ammunition will never be mixed during movement, issue, or turn-in.

c. HE hand grenade throwing on any range must stop immediately and Range Operations be called if a thrown grenade does not explode. Range Operations will inform EOD.

d. Units using HE hand grenades on live-fire exercises must ensure the target area is free of holes, ditches or high grass that may conceal a dud.

5-5. DEMOLITIONS, ARTILLERY, AND MORTARS.

a. Range OICs and RSOs must be familiar with and have on site publications governing handling and firing of demolitions and ordnance.

b. U.S. artillery ammunition fired on Fort Lewis must be cleared for overhead fire. Firing points on the edge of the Artillery Impact Area are designated for non-cleared ammunition. Foreign forces commanders must certify non-U.S. artillery ammunition brought from national stocks.

c. Mortars may never be fired over any personnel.

d. Propellant charge increments must be kept dry. If there is doubt as to whether moisture has affected propellants, the charge or round must not be fired. Charges will NEVER be pre-cut. Excess increments must be burned daily or prior to leaving each firing position, whichever occurs first.

5-6. TRAINING WITH LIVE MINES. Live mine training guidance below is drawn from AR 385-63 and HQs DA (DAMO-TR) message DTG 290845Z Jul 97, Subject: Training Policy for Non-Self Destructing Anti-Personnel Landmines (NSD APL). Live mine training is authorized as follows:

a. U.S. Army forces, except for Korea, will not employ minefields that include non-self destructing anti-personnel landmines, inert or live, at home station training or combat training centers, including simulations. There are no U.S. Army restrictions on training with self-destructing/self-activating landmines. There is no restriction on the use of the M18A1 Claymore mine in a command detonated configuration.

b. Units outside Korea will not use inert M14 or M16A1 in tactical or protective minefield training unless the training event is directly related to a clear, anticipated requirement to employ these mines in a Korean exercise. Units on the Korea TPFDD but not actually preparing for a Korean exercise will not train with M14 or M16A1 mines.

c. Live training is allowed with M15, M19, and M21 mines. **No live training is allowed with M14 or M16A1 mines at Fort Lewis, without exception.** Live mines may not be buried in training. Approved mines may be armed and disarmed no more than 25 times per mine.

d. No tilt rods, trip wires, or booby traps will be used with live mines.

e. Live and inert mine training will not take place in the same location, to avoid mixing mine types.

5-7. PYROTECHNICS.

a. Pyrotechnics use may be restricted during dry weather, per chapter 1.

b. Dud or malfunctioning pyrotechnics must be marked in place and reported to Range Operations for EOD notification.

c. Pyrotechnic devices emplaced but not used must be retrieved, saved, and returned to the ASP. Commercial firecrackers will not be used in training.

d. Aerial flares will not be set off within 1000 meters of Gray Army Airfield, or when any aircraft is overhead.

5-8. MISFIRES, HANGFIRES, AND MALFUNCTIONS.

a. A misfire or hangfire 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. EOD does not respond to malfunctions unless unit actions fail to resolve the situation.

b. Malfunctions include early discharge, premature detonation, or short rounds. 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. If medevac is needed it will be processed immediately. Otherwise an incident description will be provided. Range Operations will inform I Corps EOC/FOD, the ASP, EOD, and Command Safety. The unit must make required reports through logistics channels.

(3) The ASP will notify the Quality Assurance Specialist for Ammunition Surveillance (QASAS), who will investigate as needed and clear the unit to move or fire the weapon or other ammunition.

(4) The unit will inform Range Control of QASAS directives before resuming firing or moving from the range.

CHAPTER 6

IMPACT AREAS

6-1. GENERAL. Fort Lewis has four permanent impact areas (North Fort, Central, Artillery, South). Special-use impact areas may be activated for specific training events. Impact areas are marked with warning signs and barriers, and are off limits to all personnel except as approved by Range Control. Passing hazard warnings and barriers without Range Control permission is forbidden. CAUTION: The road along the south side of the Artillery Impact Area from Range 52 to Mortar Point 13 is off limits, as are the roads in the South Impact Area.

6-2. DUDS. Unexploded ordnance (UXO) is extremely hazardous and MUST NOT BE DISTURBED. Unexploded ordnance will not be removed from impact areas. Any dud or ammunition item higher than .50 cal found along the boundary of or outside an impact area will be reported to Range Operations (FM 41.10/40.20, VHF 141.125, telephone 967-6371/7974) immediately for evaluation by EOD. Ammunition .50 cal and lower found on post will be turned into the ASP, Bldg M001.

6-3. IMPACT REQUIREMENTS.

a. Firing on ranges and firing points must cause impact in the designated impact area. Impact outside an authorized area will be reported to Range Operations immediately.

b. Live-fire exercise OICs must identify to their personnel the azimuth or deflection and elevation limits per range contracts and overlays that will keep firing hazards within the designated impact area.

6-4. BARRIERS AND GUARDS.

a. Some ranges have barrier and guard requirements. See range SOPs. Placement of these barriers and guards are the responsibility of the unit.

b. Barriers may be permanently emplaced gates or temporary barricades. Barricades receipted from Range Supply will be returned immediately after firing.

c. Hazard area guards placed by a unit must have radio or telephone communication with the range or exercise CP. Roving patrols must have radio contact with the CP.

6-5. IMPACT AREA TRESPASS. Anyone observing personnel or vehicles in an impact area must inform Range Operations immediately. Range Operations will call a check-fire as needed and request MP assistance at the site.

6-6. IMPACT AREA TARGET PLACEMENT AND MANEUVER.

a. Units desiring to emplace targets in or maneuver through permanent impact areas must schedule this activity. Detailed coordination with Range Control is required.

b. Unit work parties in impact areas must be scheduled and must be cleared into the impact area by Range Operations using radio, per Chapter 1. There are no exceptions.

c. Unit plans for target placement or maneuver in a dudded impact area must include a unit-conducted, EOD-assisted surface sweep. The following must be included in unit planning:

(1) Direct coordination between units and EOD is encouraged as early as possible. EOD requires Range Control verification that terrain is scheduled for the event. Requests are by memorandum through Range Control to 707th Ordnance Company (EOD) not less than 30 days prior to the event.

(2) The unit must provide a range sweep detail, composed and equipped as follows:

(a) OIC (SFC and up); RSO (SSG and up); Safety NCOs; staking party (size determined in coordination with EOD); and MOS 91B/91C medic or combat lifesaver with aid bag.

(b) Dedicated evacuation vehicle with litter and driver; vehicles for transportation of explosives, marking materials, and scrap; and reliable radio communications with Range Operations.

(c) Dud marking stakes and fluorescent tape obtained from Range Supply (quantities determined in coordination with EOD).

d. During operations in a dudded area, all personnel must wear helmet, flak vest, eye protection, and work gloves.

6-7. DIGGING AND CONSTRUCTION IN SUSPECTED DUD AREAS.

a. Construction of permanent facilities by Corps of Engineers contractors in suspected dud areas requires clearance of unexploded ordnance to the depth required for the project.

b. Construction of permanent facilities by Engineer troop units requires a surface sweep for UXO by the unit and EOD, plus risk analysis and protective measures per the Fort Lewis SOP and FORSCOM waiver for digging in suspected dud areas.

c. Digging of target emplacements, objectives, foxholes, and other excavations by engineer or maneuver units in suspected dud areas, in support of live-fire maneuver and other training events, requires measures per sub-para b, above.

d. Work parties must be cleared into the impact area by Range Operations per Para 6-6b, above.

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CHAPTER 7

DIRECT FIRE RANGES AND LASERS

7-1. GENERAL

a. Direct fire ranges are scheduled per Chapter 4. No range may be used unless it has been scheduled and until hot status has been received from Range Operations. Active ranges and hazard areas are announced in the Daily Range Schedule.

b. Troops may not go beyond the firing line on electrical ranges or ranges where dud producing munitions are fired. Exceptions are authorized by Range Operations and may require escort by EOD.

c. OICs and RSOs must ensure firing is kept within range limits as set by boundary markers or approved overlays. Marksmanship range limits are marked with red-and-white barber poles, reflective panels, or triangular red-and-white panels. Maneuver range limits are as designated by the range OIC. Illuminated range limits are provided on Ranges 12 and 30. When other ranges are used for night fire, the OIC and RSO must mark limits with easily identified devices.

d. Central Impact Area (Ranges 1 thru 47) OICs and RSOs must watch for low-flying aircraft downrange. If aircraft appear to be on a hazardous course in relation to targets and authorized impact, the OIC will call a local check-fire and inform Range Operations.

7-2. WARNING SIGNALS AND SIGNS.

a. Scarlet flags are flown at hot ranges during daylight hours. After dark, red blinking lights are posted.

b. Warning signs and barriers are posted on impact area boundaries. Impact areas are extremely hazardous, and entry past a warning sign without Range Control permission is prohibited.

c. A white flag on a range indicates maintenance personnel are downrange and must be contacted before any other activity begins.

7-3. TARGETS.

a. The Range Electrical Target Section is responsible for hard-wired targetry. Units will not tamper with electrical target systems in any way. Electrical target problems should be reported immediately to Range Operations FM 41.10/40.20, VHF 141.125, telephone 967-6371/7974).

b. Portable radio controlled targets and hostile fire simulators are obtained from DPTMS Training Support Center (TSC). Radio controlled devices must be placed per the range contract, used per TSC instructions, and protected from weapons fire.

c. Requests for non-electric small arms targets (rifle/MG zero, KD, personnel silhouette and stake sets) are made in the Remarks section of the RFMSS request or the HFL Form 473 used to schedule the event. The unit must list type and number of targets, date of firing, pickup date, return date, point of contact (POC), and phone number. See Appendix E.

d. Requests for gunnery targets are based on the standard target codes and order format in Appendix E.

e. OICs will not receive clearance from ranges until all targets and target debris are returned. These are due the first duty day after firing.

7-4. RANGE RECONNAISSANCE.

a. Reconnaissance of scheduled ranges 1-3 days prior to training is encouraged. After checking in at Range Operations and signing for key and SOP packet, the OIC and RSO should review both the SOP and the range description in Appendix B of this regulation, confirm the unit's scheduled firing hours, check target availability, and visit the range. Recon parties must not activate range systems when a white flag and/or lock-out/tag-out notices on range towers indicate that Range Maintenance personnel are downrange. Materials issued for a recon must be returned the same day.

b. Problems noted will be reported to Range Operations. The Range Facilities Branch will attempt repair. If the range cannot be made usable, Range Operations will assist in coordinating a similar range.

7-5. RANGE AND EQUIPMENT RECEIPT. The OIC or RSO must sign for the range and its support equipment from Range Operations, Bldg 4074. Targets are receipted from Range Supply, Bldg 4076. Support equipment must be returned the first duty day after firing. If the receipt holder is replaced during training, the relieving OIC or RSO must sign for the range and property at Range Operations and Range Supply. Special arrangements may be made for property transfer in the field during multi-day exercises.

7-6. DOWNRANGE VISIBILITY. The OIC must cease firing if the most distant downrange target to be used is obscured by darkness, fog, or smoke.

7-7. CONDUCT OF RANGE FIRING.

a. Ranges, support packets, and targets may be signed out the duty day before firing. The unit may not occupy the range until its first scheduled day. Occupation

must be reported to Range Operations per the opening checklist issued with the facility packet.

b. When the unit is ready to go hot the OIC will complete the opening checklist and call Range Operations (FM 41.10/40.20, VHF 141.125). Opening and closing are by radio only. The Range Operations Shift NCO will obtain information from the opening checklist, record the range in hot status, issue a user's code, and give initials as authentication.

c. During firing, the OIC and RSO both must be on site and in control. Should the OIC or RSO have to leave, the range will be put in check-fire and Range Operations notified.

d. If constant radio watch is required per appendix B and the range SOP, a designated RTO will monitor and respond to Range Operations radio checks.

e. The Range Inspection Section may visit ranges to check safety and compliance with regulations, and to provide assistance as needed. Range Inspectors are authorized to check-fire ranges if safety violations are noted.

f. Range Inspection must check police, general range condition, and removal of ammunition residue prior to unit clearance from ranges. Range Inspectors will also enter range towers to ensure controls are properly secured and, on computer-driven ranges, equipment and heaters/air conditioners are properly set. The OIC schedules checkout per the opening checklist. Nightfire range OICs will schedule a daylight time for clearance the next morning prior to closing.

g. Final clearance from a range requires return of all range support materials issued by Range Operations and Range Supply. Accounts become delinquent on the second working day after training is complete.

h. The unit must take trash to garrison dumpsters or the landfill in unit-provided trash containers. Ammunition residue must be taken to the ASP.

7-8. UNIT RANGE POLICE AND OVERWATCH.

a. Ranges are policed by using units. Trash accumulation or damage found on a range must be reported by the OIC to Range Operations prior to request for hot status. A Range Inspector will be dispatched to determine responsibility for cleanup or repair.

b. Range overwatch is assigned in FL Reg 210-10.

7-9. RANGE FIRES.

a. Range fires may occur anywhere on the range complex at any season.

b. On ranges where dud-producing ammunition is fired, the OIC will report a downrange fire to Range Operations (FM 41.10/40.20, VHF 141.125, phone 967-6371/7974) and then observe. On all other ranges, the OIC will report the fire to Range Operations and begin firefighting.

c. Fires in uprange administrative areas will be fought. In all situations, until PW Forestry fire crews arrive the OIC must ensure unit personnel, equipment, and ammunition are not endangered. The first PW Forestry representative to arrive will assume control and direct firefighting assisted by the OIC.

7-10. LASERS.

a. Fort Lewis line-of-sight backstops confine laser operations to the firing points and targets areas listed below. Lasing in other modes or from other locations requires a range contract per Chapter 9. Laser firing points must be scheduled per Chapter 4. Lasing is considered to be live fire, and powered laser devices must be treated as loaded weapons.

b. Lasers are fired into the Artillery Impact Area from Range 74 and OPs 2, 3, 8, and 9. Laser range SOPs list limits and device control requirements. Laser training inside the cantonment area is prohibited.

c. Laser operations require a laser Range OIC and RSO, certified per Chapter 1. Both must be familiar with the equipment in use and with Chapter 19 and Appendix B of AR 385-63, and must be on-site during laser operations.

d. In event of loss of control of a laser device, such as an activated device being dropped or knocked over, the RSO will call an immediate check fire, inactivate the device, and inform Range Operations. Personnel who may have been exposed to a laser beam require immediate medical examination by an ophthalmologist.

e. Laser power sources will not be connected until the OIC and RSO are ready to go hot. Powered lasers must be aimed into the impact area.

f. Unless the OIC has coordinated with Range Control to conduct designating, the AN/TVQ-1 GLLD will be used in range finding mode only.

CHAPTER 8

INDIRECT FIRE

8-1. GENERAL.

a. This chapter discusses live fire of mortars and field artillery. For firing hours, see chapter 3. Indirect fire must be within FAA Restricted Airspace R6703, which is activated on a real-time basis by Range Operations through Seattle Tower. Units must request activation of R6703 not less than 30 minutes prior to firing. See also chapter 11.

b. OICs firing illumination and smoke rounds must compute and apply safe canister impact. When firing illumination during Fire Hazard Level 2 or 3, flares must land on open prairie, not in trees. If wind or other factors preclude this, illumination may not be fired. Fire hazard levels are in chapter 1.

c. Mortars and field artillery may not be fired when targets are masked by fog, smoke, or other obscurants unless an impact-locating radar is used. Regardless of visibility, all impacts must be observed. Rounds sensed as lost must never be repeated until firing data, weapon lay, and propellant increments are checked.

d. Observed fire may be conducted from any location where the target area can be seen. If a FIST will observe fire from other than a bunker OP, the training area occupied must be scheduled by the unit.

8-2. FIXED FIRING POINTS.

a. Artillery and mortar points listed in appendix B are established by 4th order survey and recorded in the Fort Lewis Trig List. Artillery point monuments are shell cases embedded in concrete. Mortar point monuments are power pole stumps. Mortar platoon base pieces must be within 100 meters of the monument. Artillery pieces on fixed points must be sited so the greatest displacement from the monument along the gun target line is 250 meters left or right in width, by 100 meters front or rear in depth.

b. Mortar OICs or RSOs must sign for the point and support equipment and be present throughout use. Artillery OICs (usually the battalion S-3 or FDO) may sign for and open firing points used by all units in the battalion, and must be in the field throughout firing. If the receipt holder is replaced during a multi-day exercise, the unit may coordinate with Range Operations for field transfer of responsibility and property. Otherwise, OICs must transfer receipts at Range Control.

8-3. PADS AND PALADIN FIRING.

a. Artillery units may establish firing points anywhere inside R6703 A, B, or D. Targets must be located inside the PADS impact area, identified in the PADS SOP issued by Range Operations. During PADS firing, the unit occupies a firing point surveyed by PADS or GPS and transmits opening information to Range Operations (FM 41.10/40.20, VHF 141.125) per the PADS SOP and the artillery opening checklist.

b. Paladin firing is conducted per the Paladin Safety Procedures memorandum executed between 1-37 FA and Range Control. Copies are maintained at Range Operations and 1-37 FA.

c. The PADS SOP and Paladin memorandum are reviewed annually by Range Control, Command Safety, and firing units to ensure currency.

8-4. MORTAR FIRING.

a. Overhead fire by mortars is prohibited. OICs and RSOs must ensure no personnel are under the trajectory. Because of the overhead fire prohibition, PADS or GPS mortar firing requires a range contract and TA closures. See chapter 9.

b. 81mm and 120mm mortars must be laid using the M2 aiming circle or the M2 compass. The lay must always be checked by an independent aiming circle. The requirement for an aiming circle as check instrument will not be waived.

c. 60mm mortars must be laid per above unless aiming circles are not authorized by TOE at the battalion level. In this case, 60mm mortars will be laid and checked with two M2 compasses. Check readings between compass and mortar sight, and between lay and check compass, must agree within 10 mils. There are no exceptions to the requirement for a separate check instrument.

d. 60mm, 81mm, and 120mm direct lay, direct alignment, and 60mm hand-held firing, are done as follows:

(1) The OIC must confirm with an M2 compass the azimuth of fire is within safe limits per the mortar point SOP.

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

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

(4) 60mm hand-held firing is limited to Charge 1 and below.

(5) 60mm direct lay and direct alignment are limited to Charge 2 and below for HE M720. HE M49 and WP M39 may be fired at all charges.

f. OICs will ensure mortars are separated by the distance required in the weapon FM. The bursting radius of the ammunition being fired is the minimum safe distance (MSD) from each tube, inside which nonessential personnel are not permitted.

8-5. FIELD ARTILLERY FIRING.

a. All ammunition components (propellant, projectile, fuze) must be certified for overhead fire.

b. At least one commissioned officer must be present on each hot firing point. This officer, usually the executive officer, is the Position Commander and performs duties per Chapter 11, AR 385-63. The Position Commander may also be OIC, although that duty is best performed by the fire direction officer. The Position RSO must be an SFC or higher.

c. Artillery surface danger zones (SDZs) are established by AR 385-63. Hazard Areas A through E vary dependent on weapon and ammunition. Access to Areas A, B, and C requires permission from Range Operations. Personnel not involved in training may occupy Area D and that portion of Area E greater than 350 meters from the weapon. Artillery firing OICs will consider Area D occupied by personnel other than troops in training at all times. Only weapon crews, unit members involved in firing, unit-sponsored visitors, and Range Control personnel may be within 350 meters of the weapon. On some firing points this requires guards on range roads along the battery front. These guards may block roads only during live fire missions.

d. The firing points in TA 12 between Chambers Lake and the railroad close the Roy Cutoff Road and the picnic sites on Chambers Lake. Range Control will inform DPCA Outdoor Recreation when these points are scheduled. Units must lock the gates at the north and south ends of the Roy Cutoff Road, along the rail line, and at the outlet to Chambers Lake, using unit locks and chains. Battery personnel must be alert for trespassers bypassing gates to the front or flanks of the howitzers.

e. Artillery units must have an internal Range Safety and Firing SOP.

8-6. MORTAR AND ARTILLERY FIRING INCIDENTS.

a. Any projectile seen or suspected to have hit outside approved limits will be reported to Range Operations (FM 41.10/40.20, VHF 141.125) immediately as follows:

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

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

(3) Any injury to personnel. If injuries require evacuation, Range Operations will initiate medevac immediately, then record the information below.

(4) Number of rounds.

(5) If an airburst, estimated height.

(6) If a ground burst, whether the crater has been found. NOTE: If a crater is available, the reporting unit or individual will ensure it is not disturbed until a Range Control investigator arrives.

(7) Equipment damage, if any.

b. Range Operations will:

(1) Order check-fire of all ranges and firing points by broadcasting the command "Check Fire, Freeze" on the Range Control nets. This command is used only for firing incidents, and requires all units monitoring the net to cease operations until specifically reopened by Range Control.

(2) Initiate medevac, if needed.

(3) Dispatch a Range Control investigator and notify the senior artillery headquarters S-3 assistance is needed.

(4) Notify the following (in order):

(a) Medevac and MAMC (as needed).

(b) EOC during duty hours, or the I Corps FOD after duty hours.

(c) ASP (as needed)

(d) EOD (as needed).

(5) 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 Officer, Range Operations Officer, or DPTMS, on advice from investigators.

(6) Direct inquiries to EOC or the FOD.

c. Units on ranges and firing points required to monitor Range Operations will cease firing at the command of "Check Fire, Freeze" from Range Operations. OICs or Position Commanders will:

- (1) Have crews fall in at the rear of pieces.
- (2) Preserve as-fired data on weapons and aiming circles.
- (3) Prevent movement of ammunition components and tools.
- (4) Monitor the Range Operations radio net.

NOTE: Only investigators may check data, propellant, fire control instruments, craters or other aspects of firing or impact points.

d. The Range Control investigator will make an initial report of findings to DPTMS, and will inform the appropriate MSC, or RCSB for Reserve Component firing, a formal investigation is required. If the team cannot determine which of several units is responsible, all MCSs involved must investigate. Unit investigating officer(s) must be on site within one hour of notification, and will be briefed by Range Control and unit personnel. A report must be forwarded to DPTMS within 10 calendar days of the incident, with an information copy to Command Safety.

8-7. EXCESS PROPELLANT CHARGE INCREMENTS. Excess increments will be burned at the end of each day, or before leaving a firing position, whichever occurs first, as follows:

- a. Select a gravel road free of brush, leaves and other combustible material, at least 65 meters from personnel or equipment.
- b. Place increments in a single-layer row not more than 12 inches wide. Igniter powder must be placed in a train not more than two inches wide at the upwind end of the increments so the powder will burn into the wind.
- c. Lay a 5-meter train of combustible material perpendicular to and at the downwind end of the increments. Light this at the end farthest from the charges.
- d. Monitor the burn site for at least 15 minutes to ensure that the blaze is completely out.

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CHAPTER 9

LIVE FIRE EXERCISES

9-1. GENERAL. Live fire maneuver training is a critical component of preparation for combat. Live fire exercises require close cooperation between the unit and Range Control to ensure maximum safety and flexibility for training inside the maneuver box, and the safety of non-involved personnel outside the box.

9-2. PLANNING.

a. Range Operations notifies units that a live fire contract is required by attaching a contract packet to the RFMSS scheduling confirmation or HFL Form 473 requesting the range or site. The unit commander appoints a firing OIC to plan and conduct the event. If an event will be conducted by multiple OICs, all must participate in the entire contract cycle. If an OIC is changed during planning or execution, the process must be repeated.

b. The OIC meets with the Range Operations Live Fire NCO **not less than 14 duty days prior to the event** to discuss scenario and training objectives. Range Operations will advise on safety, environmental considerations, and terrain limitations. If there are environmental concerns, Range Operations will assist the OIC in contacting PW Environment.

9-3. RANGE WALK. The planning session is followed by a range walk, if required, where the scenario is applied to the ground to set the maneuver box and firing limits. These are used to construct surface danger zone (SDZ) overlays.

9-4. CONTRACTS.

a. The live fire contract records unit measures to ensure weapons effects remain inside the maneuver box and firing limits. The contract packet may include SDZ overlays.

b. The contract establishes firing controls and terrain restrictions. Commanders must ensure chain of command review of the exercise throughout. Once finalized by the OIC and Range Operations, the contract cannot be changed at any level without review by Range Control. **The contract must be final and approved not less than 5 days prior to the event.**

9-5. OVERLAYS.

a. The OIC prepares SDZ overlays and, as needed, a Training Area closure and guard plan. Overlays must be completed at least five duty days prior to firing.

b. Overlays are prepared by the OIC in two copies on tracing paper, NSN 7530-00-235-4033. Acetate or other media will not be accepted. Technical assistance, tracing paper, and instruments are available at Range Control. Some overlays may be prepared on the Range Control ArcView impact area map, per direction of the Armor Master Gunner or Live Fire NCOIC.

c. SDZ outlines must show start-fire and cease-fire lines, and azimuths of firing limits in both grid and magnetic. Marginal information follows:

- (1) Range or firing event.
- (2) Date(s) of firing.
- (3) Weapons and ammunition included.
- (4) At least 2 UTM grid reference points.
- (5) Scale, map sheet name, and edition.
- (6) Name, rank, unit, and telephone of preparer.
- (7) Signature of preparer and date signed.

(8) Signature of the Range Control official who reviewed and approved the overlay, and date signed.

d. One copy of the approved contract and overlay is with the OIC on the range during firing; the others are kept at Range Control until the end of the event.

9-6. FIRING.

a. Live fire maneuver scheduling must include time for set-up and range clearance. The downrange effects areas of many ranges at Fort Lewis overlay others, so access to impact areas is not automatically approved by the contract and must be arranged and reported daily by the OIC. Ranges must be scheduled and opened for occupation and set-up as well as for firing. Impact area entrance clearance must be obtained per chapter 6.

b. During set-up the OIC tests guard communications and internal safety and control systems. All road guards must have communications with the unit exercise command post, and the CP must establish radio communications with Range Operations.

c. Prior to opening for live fire, the OIC ensures road guards and barriers are in place, communications are operational, and special requirements imposed for the exercise are in effect. During firing, the OIC and RSO must keep weapons effects in the SDZ area.

d. The unit must conduct non-firing rehearsals and MILES or blank-fire training before using live ammunition. Units must successfully complete daylight live fire before progressing to night operations. Commanders two levels up will proof subordinate unit live fire exercises.

e. Event sites must be repaired by the unit. Emplacements must be filled and barriers and ammunition residue removed. Missile wire must be recovered.

9-7. AFTER-ACTION REVIEW. Unit commanders and event OICs are encouraged to include Range Control support as part of AARs, and to provide suggested improvements to the Range Operations Officer.

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CHAPTER 10

DEMOLITIONS

10-1. GENERAL.

a. Demolitions firing includes exploding materials and devices not fired from weapons. Most demolitions firing events are live fire exercises and governed by Chapter 9.

b. Demolitions training must stop during or on approach of an electrical storm. Caps must be moved away from personnel and other demolitions.

c. Above-ground misfires are cleared by the unit, not EOD.

10-2. DEMOLITIONS LIMITS.

a. Demolitions fired on Fort Lewis must be within the limits below. These limits are based on ICUZ Study 54-34-3468-83 (full title in appendix A). Exceptions are on a case-by-case basis.

b. C-4 and TNT demolition charges and detonating cord are limited to 20 pounds in any one detonation or group of simultaneous detonations. Separate detonations must occur within 1/10 second to be considered simultaneous. Demolition charges above the weight of standard issue 1/4 pound or 1 pound blocks may be assembled only for specific training, such as timber cutting.

c. Bangalore torpedoes are limited to two sections in any simultaneous detonation.

d. 15-pound shaped charges are limited to five charges in any simultaneous detonation.

e. 40-pound cratering charges are limited to two charges per hole, maximum four holes per shot, in any simultaneous detonation. The maximum training cratering charge cannot exceed 320 pounds.

f. Claymore mines are limited to 10 in any simultaneous detonation. Multiple Claymores must be at least five meters apart, per FM 23-23. Other high-explosive mines may be fired in training for demonstration purposes.

10-3. IMPROVISED EXPLOSIVE DEVICES (IED). IED firing must be supported by the unit mission.

10-4. DEMOLITIONS EFFECTS SIMULATORS (DES). DES are authorized for use in Fort Lewis TAs, as follows:

a. Use of DES must be scheduled on the RFMSS request or HFL 473 covering the event. The TA/site must be opened by radio with Range Operations for live fire. DES usually requires a range contract per chapter 9.

b. The DES minimum safe distance (MSD) for personnel in the open is 50 meters. MSD for personnel behind cover is 20 meters.

c. No more than 150 meters of detonating cord may be used in a single shot.

d. Only M11 and M14 blasting caps will be attached to detonating cord for initiation. When initiating with the M14 a minimum of one-minute of time fuze will be used. M12 or M13 caps will be used in conjunction with M11 caps to achieve the minimum safe distance. MDI caps may be attached to detonating cord only when a qualified safety person or observer-controller is present.

e. DES will not be placed inside vehicles, aircraft, tents, bunkers, or structures. DES will not be thrown.

CHAPTER 11

AIRSPACE CONTROL

11-1. GENERAL. Training airspace is managed in coordination with ranges, non-firing facilities, and land. This chapter covers training in the airspace bounded by R6703, the Rainier MOA, or the reservation boundary, whichever extends further.

11-2. AIRSPACE USE AND FACILITIES. Airspace use includes Range Control managed sites and activities that activate the MOA or R6703, or that require a Notice to Airmen (NOTAM), as follow:

- a. Artillery and mortar firing.
- b. Close Air Support (CAS), Joint Anti-Armor Training (JAAT) or aircraft reconnaissance (recce).
- c. Parachute drops and low-altitude parachute extraction system (LAPES) operations.
- d. Field and assault airstrip operations.
- e. Helicopter air-to-air combat training.
- f. Aviation unit FTX from a ground base in a Training Area.
- g. Radio-controlled munitions aerial target (RCMAT) and unoccupied aerial vehicle (UAV) operations and model aircraft flying.

11-3. NOTICE TO AIRMEN (NOTAM).

a. FAA Regulations require NOTAM when a hazard exists to the safe flow of air traffic. NOTAMs for indirect fire and demolitions in R6703 are requested for the firing unit by Range Operations on the Daily Range Schedule. Units are notified of NOTAM requirements for other events by Range Scheduling in Block 15 of HFL Form 473 during processing. Detailed guidance on NOTAM requests is provided by GAAF Operations.

b. Airspace users request NOTAMs through Range Scheduling, using the format at Figure 11-1, not less than three duty days before the event. Range Scheduling verifies that a ground site has been reserved and forwards NOTAM requests to GAAF Operations immediately after processing. GAAF publishes NOTAMs at the appropriate time, both locally and through Seattle Flight Service Station.

c. Upon NOTAM publication, GAAF places a copy of HFL Form 1173 in Base Operations for unit pickup the duty day before the scheduled event. Ground sites for NOTAM activities, such as parachute drop zones, will not be issued to training OICs by Range Operations unless a copy of HFL Form 1173 is on hand during facility sign-out.

d. Paradrop NOTAMs include only the area one nautical mile around the outline of the DZ as shown on the 1:50,000 Fort Lewis Military Installation Map. See Fig 11-2.

e. Units cancelling or delaying activities published by NOTAM must inform GAAF Operations and Range Scheduling immediately.

11-4. USE OF THE RAINIER MILITARY OPERATIONS AREA (MOA).

a. The Rainier MOA is FAA-controlled for Fort Lewis use under Range Control management. Lateral and vertical limits are published in Seattle Sectional Aeronautical Chart and Seattle VFR Terminal Area Chart.

b. FAA Seattle Tower activates the MOA on a real-time basis on notification either by Range Operations or by participating fixed-wing aircraft. The MOA is not activated for or by Army rotary-wing aircraft. Scheduling is by Range Control only, in response to unit requests per Figure 11-3. New events, or changes to scheduled events, must arrive at Range Operations in time for two-hour notice to Seattle Tower.

c. When the MOA is active, access for IFR traffic is controlled by Seattle Tower.

11-5. USE OF R6703A, B, C, D.

a. "Controller" and "user" are special terms in FAA Restricted Airspace. The controller of R6703 is the FAA. The user of R6703 is Fort Lewis, with day-to-day management by Range Control. Range Operations has direct phone contact with Seattle Approach and GAAF.

b. R6703 is composed of subunits R6703A (surface - 14,000 feet), R6703B (surface - 5,000 feet), R6703C (surface - 14,000 feet), and R6703D (surface - 5,000 feet). See Figure 11-5. R6703 A, B, and D are continuously available 0700-2300 daily, and other times by NOTAM two hours in advance. R6703C is only available by NOTAM two hours in advance. R6703 is activated for:

(1) Aerial delivery of live or simulated ordnance.

(2) Surface-to-surface and surface-to-air firing of munitions when projectiles, fragments, obscuration, or other effects rise more than 45 meters above ground level (AGL).

(3) Laser weaponry and targeting devices.

(4) Parachute operations which must be conducted in a restricted area per FAA Regulation (FAR) Part 105.

- (5) Aircraft lights-out operations between sunset and sunrise.
- (6) Cargo paradrop activities.
- (7) UAV flights.

c. R6703 is activated by the FAA on request from Range Operations, based on the using unit opening call. Since the FAA activates R6703 on a real-time basis and must reroute air traffic, 30 minutes' notice is required from the using unit. Scheduling of R6703 is done only by Range Control. New events, or changes to scheduled events, must arrive at Range Operations in time for two-hour notice to the FAA.

d. When R6703 is active, access for aircraft not involved in the training event is per published NOTAM.

11-6. FLIGHT FOLLOWING AND AIRSPACE ADVISORY. GAAF Bullseye Radio provides flight following and airspace advisory service on FM 34.60, VHF 141.5, and UHF 393.3 on a 24-hour/seven-day basis unless otherwise noted by NOTAM. Range Operations does not respond to aircraft requests for advisory.

11-7. HIGH PERFORMANCE AIRCRAFT OPERATIONS AND ORDNANCE.

a. Coordination and initial scheduling for high performance aircraft are by DD Form 1972, Joint Tactical Air Strike Request, with scheduling per Figures 11-3 and 11-4. Aircraft below 2000 feet MSL inside the GAAF traffic area must be in contact with Gray Tower. Checkfires imposed for high performance aircraft will be lifted when the aircraft clears the MOA. The Fort Lewis Artillery Impact Area is used for BDU-33 or other training flash-smoke air-delivered ordnance only.

b. Close Air Support (CAS).

(1) CAS must be controlled by a Forward Air Controller (FAC). The FAC will establish contact with Range Operations (FM 41.10/40.20, VHF 141.125) not less than 30 minutes prior to scheduled TOT, and must monitor Range Operations continuously until the mission is complete. Range Operations will call the FAC for unscheduled periodic radio checks.

(2) Block times are enforced. If other scheduled training precludes block time extensions, mission aircraft must be turned away.

11-8. DROP ZONE OPERATIONS.

a. Parachute drop zones (DZ) are scheduled separately from the Training Areas in which they are located. Parachute drops are scheduled by block times for events plus equipment and personnel recovery.

b. A DZ survey must be on file at Range Control before any DZ can be used. Authorized uses for established Fort Lewis DZs are in Figure 11-2 below.

c. Hazards. R6703 will be activated for night jumps by unilluminated paratroops, IFR, or cloud impeded drops inside the restricted area. Other types of drops inside R6703, and all paradrops outside R6703, are without statutory protection to the jumper. Per FAA Regulation FAR Part 105, each person jumping between sunset and sunrise outside of R6703 must be equipped with a light visible for at least three statute miles.

d. Procedures.

(1) DZs will be manned and operated per current airborne regulations and doctrine. Non-military jumps will be conducted per United States Parachute Association (USPA) guidelines and rules. DZs must be signed for by the DZSO, DZSNCO or CCT. Personnel to be listed as OIC of drops, whether Army or USAF, must be Safety Certified per Chapter 1. During night personnel drops, a member of the DZSO party must use NVG to track jumpers.

(2) DZs will be opened and closed on the Range Operations net (FM 41.10/40.20, VHF 141.125) by the unit or agency scheduled through RFMSS or on HFL Form 473. Back-up communications are required. When an Army DZSO is present, that person will request opening; during USAF-only drops, the CCT will open. Once a DZ is opened, the Range Operations net must be monitored at all times by the DZSO or CCT.

(3) Range Control will inform GAAF Operations of DZ hot status, type of drop, TOT, aircraft type, and clearance for mission aircraft to enter the restricted area. GAAF Operations will use the information to answer queries from mission aircraft on DZ status and entry clearance. There will be no simultaneous operations by more than one unit on any DZ, and only one set of marker panels at a time may be displayed on a DZ. Block times are enforced.

(4) The DZSO or CCT will give Range Operations 30-minute and 10-minute warnings. At the 30-minute warning, Range Operations will impose required check-fires. Use of Point Salines DZ by fixed wing aircraft requires check-fires of all indirect firing points. See Appendix C for other conflicts. The 10-minute warning will be passed to GAAF Operations when Abrams or Point Salines DZs are in use, so Runaway 33 east departures can be suspended during the actual airdrop.

(5) Paradrops without DZ-to-air communication are conducted as follows:

(a) The RFMSS electronic request or HFL Form 473, and NOTAM request must include notice that a drop will be Ground Mark Release System (GMRS), Computed Air Release Point (CARP) or All Weather Aerial Delivery System (AWADS).

(b) The DZSO or CCT must open the DZ through Range Control before placing marking panels.

(c) Range Control will inform GAAF Operations of DZ status.

(d) Based on 30 and 10 minute warnings from the DZSO or CCT, Range Control will impose necessary check-fires.

(6) Check-fires will be lifted when the DZSO or CCT informs Range Operations that mission aircraft have departed the MOA and that all jumpers are accounted for on the ground.

(7) Aircraft operating under 2000 feet MSL within five statute miles of GAAF must be in contact with Gray Tower.

e. Shared use by Ground and Air Units.

(1) Drop Zones are not part of the TAs 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 CCT. Construction of tactical emplacements and barriers on DZs must be approved by Range Control and cleared from DZs immediately upon completion of training.

(2) When DZs and surrounding TAs are scheduled for simultaneous air and ground use by different units, coordination is required, with later-scheduled units coordinating up to the first scheduled. Coordination is noted on the RFMSS request return or on HFL Form 473. First-scheduled units cannot forbid shared use of TAs or DZs. See chapter 14. In addition, all ground-use unit OICs must find the DZSO/CCT party on the DZ and personally coordinate activities on the day of training.

(3) Pacemaker Assault Strip and the adjacent Extraction Zone (LAPES Strip) may be scheduled for air use when TA 14 and/or Rogers DZ are allocated for ground use. Pacemaker is not available for ground use, and is always off limits to vehicles not involved in an air landing operation.

f. Non-Participating Aircraft within DZ Airspace. The DZSO or CCT will report aircraft crossing DZ airspace designated by NOTAM. However, Seattle Tower monitors mission aircraft location and occasionally routes an IFR flight across an active DZ.

11-9. AERIAL GUNNERY. Limited helicopter aerial gunnery is possible at Fort Lewis as a live fire exercise per chapter 9. Aircraft involved in door gunnery must use brass catchers to contain cartridges.

S A M P L E

AFZH-XXX

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Request for Notice to Airman (NOTAM)

1. Request NOTAM be published for (operation) to be conducted by (unit) on (date), as follows:

- a. Unit: 14th MI Bn
- b. Date and block time of operation: 28 Jan 88 1100-1500
- c. Type of operation and, if airdrop, TOT and type of drop: TOT
- d. Location of operation (if airdrop, DZ name and grid coordinates):
Rogers DZ EH 001001

2. To be completed by GAAF:

- a. For airdrops, distance from center of DZ to nearest VOR (radial and NM) (to be completed by GAAF): 1 mile
- b. FAA facility for contact (to be completed by GAAF): Seattle
- d. Altitudes (AGL): 2000 ft
- e. Aircraft type, unit, and tactical call sign: C5A, 3rd Air Cav, Bulldog
- f. Radio frequencies to be used, air-to-air and air-to-ground: 20 MHZ and 41.35 MHZ

2. Remarks (Include notice of operation in which there will be no radio contact between aircraft and ground team, or no-lights night drops, or a drop through clouds).

3. Point of contact is (name, unit, duty title, telephone number): CPT Chevron 14th MI Bn, 967-6666.

SIGNATURE OF UNIT COMMANDER

Figure 11-1

DROP ZONE	CAPABILITIES	REMARKS
ABRAMS N. APPROACH (CTA 6)	PERS, HAHO, HALO	IN R6703D.
ABRAMS S. APPROACH (TA 6)	PERS, HAHO, HALO, CDS HVY EQUIP, SAIB, NIGHT	IN R6703D.
AMERICAN LAKE (VIC TA 2)	PERS, CRRC	WATER DROP, OUTSIDE R6703. NO ON FL SPEC MAP.
ANZIO (TA 13)	PERS	OUTSIDE R6703.
DAKTO (TA 12)	PERS	IN R6703D. ROTARY WING AIRCRAFT ONLY.
DARBY (TA 21)	PERS, HAHO, HALO, CDS, SATB	IN R6703C.
EL GUETTAR (TA 22)	PERS, HAHO, HALO, CDS, HVY, EQUIP, SATB	IN R6703C.
MARION (TA 18)	PERS	OUTSIDE R6703. ROTARY WING AIRCRAFT ONLY.
MERRILL N. APPROACH (TA 21)	PERS, HAHO, HALO, SATB, NIGHT	IN R6703C.
MERRILL S. APPROACH (TA 21)	PERS, HAHO, HALO, SATB	IN R6703C.
MYTKINA (TA 19)	PERS, HAHO, HALO, NIGHT	IN R6703C.
PACEMAKER (TA 14)	PERS, HAHO, HALO, SATB, NIGHT, LAPES	OUTSIDE R6703.
POWELL (GAAF)	PERS, HAHO, HALO	OUTSIDE R6703. NOT ON FL SPEC MAP
PT DE HOC (TA 18)	PERS, HAHO, HALO, HVY EQUIP, NIGHT	IN R6703A.
PT SALINES (TA 6)	PERS, HAHO, HALO, CDS, HVY EQUIP, SATB, NIGHT, AWADS	IN R6703D.
PUGET SOUND (VIC TA 1)	PERS, CRRC	WATER DROP. OUTSIDE R6703. NOT ON FL SPEC MAP.
ROGERS (TA 14)	PERS, HAHO, HALO, CDS, HVY EQUIP, SATB, NIGHT	OUTSIDE R6703.
YALU (TA 21)	INACTIVE	USE BY REQUEST.

Figure 11-2

S A M P L E

AFZH-PTM-R (340a)

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Close Air Support at Fort Lewis

1. Reference letter Det 6, 14 Jan 85, SAB, enclosed.
2. Reference request is scheduled with the following exceptions:

DATE	TOT (LOCAL)	AREA	MISSION	REASON
30 Jan 87	1100	R6703 and MOA	CAS	Conflict with 2-75 Inf
	1500	R6703 and MOA	CAS	Jumpmaster School, Pt Salines DZ.

3. Changes to TOTs require sufficient lead time to guarantee 2-hours notice by Range Operations to Seattle Center and GAAF Operations for alterations to posted NOTAMs. NOTAM requests must be submitted IAW Chapter 11, FL Reg 350-30, NLT 3 working days prior to the event.
4. Range Control POC is SFC Williams, 967-6371/7974.

Encl

A.J. WELLER
Range Officer

DISTRIBUTION:

1st Bde, 25th ID(L) S-3	2/75th Rangers S-3
3d Bde, 2d ID S-3	1 SFG(A) S-3
81st Bde S-3	62d AW
GAAF Operations	RCSB

SEATTLE ARTCC, 3101 AUBURN WAY S. AUBURN, WA 98002
 FAA FLIGHT SEVERICE STATION, 7233 AIRPORT WAY S, SEATTLE, WA 98108
 AASF-1, CAMP MURRAY, TACOMA, WA 98430

Figure 11-3

S A M P L E

ALO CPT Cameron

05 March 1999

Close Air Support At Fort Lewis

Range Scheduling

1. Request scheduling for USAF tactical aircraft to conduct Close Air Support operations at Fort Lewis with elements of the 3rd Bn 60th Inf on the dates and times listed below:

<u>DATE</u>	<u>TOT (LOCAL)</u>	<u>AREA</u>	<u>MISSION</u>
28 Jan 91	1100	R6703 and MOA	CAS
	1500	R6703 and MOA	CAS
29 Jan 91	1100	R6703 and MOA	CAS
	1500	R6703 and MOA	CAS
30 Jan 91	1100	R6703 and MOA	CAS
	1500	R6703 and MOA	CAS

2. All missions will be flown in R6703 and the Rainer MOA using Visual Flight Rules. Control will be provided by a Forward Air Controller (callsign: BREWERY) on Frequency 290.6 MHZ. BREWERY will open with Range Operations not less than 30 minutes prior to TOT.

3. Coordination of conflicts will be accomplished by Division ALO as required.

4. USAF point of contact is Captain Cameron, AV 357-7108.

ROBERT PIZZI, Lt Col, USAF
Division Air Liaison Officer

Figure 11-4

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CHAPTER 12

CHEMICAL TRAINING MUNITIONS.

12-1. GENERAL.

a. Lethal, incapacitating, or persistent chemical agents may not be used in training.

b. Mortar and field artillery smoke projectiles are fired per chapter 8 and weapon and ammunition publications.

c. Riot control agents may be used in training only under the supervision of a Chemical Corps officer or NCO, or a graduate of an installation/command NBC school. For Special Forces teams, NBC-qualified personnel must have been involved in the training planning process. Only CS in capsule or powder form may be used in a CS chamber.

d. Use of riot control agents, smoke generating equipment, or smoke pots must be included on the RFMSS electronic request or HFL Form 473 that schedules the training. If known, grids of release points must be listed. Clearance for use of any number of smoke generators or smoke pots must be obtained daily from Range Operations during site opening calls. Additionally, on days when smoke pot use is scheduled, Range Operations will check with the Puget Sound Clear Air Agency (PSCAA) to determine whether an indoor burn ban is in effect. If so, no smoke pot sites will be allowed to go hot.

e. The point of smoke generation for M56 and M58 generators must be at least 200 meters from wetlands, water bodies, or streams.

12-2. CONDUCT OF TRAINING.

a. Trainers must positively control riot control agents, smoke generating equipment, smoke pots, and smoke grenades.

(1) Riot control agent or any obscuring cloud of smoke must not enter cantonment/housing areas or cross the installation boundary, East Gate Road between the East Gate and the cantonment area, or any public routes listed in chapter 14. If smoke may obscure a hard-surface road in or around a TA, OICs must post road guards to report obscuration and halt traffic. OICs must also be alert to forest fire hazards from burning-type grenades, smoke pots, or equipment.

(2) Smoke grenades and CS may not be released closer than 300 meters from an installation boundary, a road open to use by the public per chapter 14, or a cantonment area. OICs must ensure that a smoke or CS cloud will not drift into other units' activities. The maximum amount of smoke or CS to be released at one time is

that sufficient to provide coverage given the size of the area, time required, and concentration desired. Unit OICs must consider actual weather and wind conditions on site which may make the 300-meter buffer insufficient, and must modify release points accordingly.

(3) HC smoke pots may not be released closer than 1500 meters from an Installation boundary, a road open to use by the public per chapter 14, or a cantonment area. OICs must ensure that the HC cloud will not drift into other units' activities or across roads that might be used by other units. The maximum amount of HC smoke to be released at one time is limited to that sufficient to provide coverage given the size of the area, time required, and concentration desired. For additional guidance on use of smoke pots drawn from Volume 1, "Toxicity of Military Smokes and Obscurants" by the Committee on Toxicology, National Research Council, see the Table below:

ATMOSPHERIC CONDITION	WIND SPEED	DISTANCE AT PEAK CONCENTRATION
Night (stable)	4 km/hr	3900 meters
	11 km/hr	2000 meters
Day (neutral)	4 km/hr	1100 meters

NOTE: Under certain atmospheric conditions, a 1500-meter safety buffer may not be sufficient. Commanders must make the final safety determination.

(4) Due to the requirement for personnel exposed to these agents to be masked, OICs of units using HC, violet, or phosphorus (metallic obscurant) smoke must ensure that all downwind personnel are either masked or are sure not to be exposed.

b. Smokepots and grenades must be kept dry until used and must be fired outdoors in an area clear of combustibles. Personnel should stay at least 30 meters from burning smokepots and 10 meters from burning grenades.

c. Riot control agents will not be used within 100 meters of open water.

d. All personnel must carry a protective mask during exercises involving smoke. Personnel must mask:

(1) Before exposure to any concentration of hexachlorothane (HC) smoke produced by M8 white smoke grenades, smoke pots, artillery rounds, or metallic powder obscurants, and also to any exposure to violet smoke.

(2) When passing through or operating in dense smoke causing visibility to be less than 50 meters.

(3) When operating in or passing through a smoke haze with visibility greater than 50 meters, and a duration of exposure exceeding four hours.

(4) Anytime exposure to smoke produces breathing difficulty, eye irritation or discomfort.

(5) When using smoke during urban training (MOUT) that includes operations in enclosed spaces.

DANGER: 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. BURNING-TYPE GRENADES MAY NOT BE USED INSIDE CLOSED BUILDINGS OR CONFINED SPACES.

CAUTION: HC SMOKE WILL NOT BE USED WITHIN A MOUT SITE.

(6) Smoke generator personnel will mask when they cannot stay upwind of the smoke.

e. Units training with riot agents or smoke must report, during Training Area checkout, number of gallons of fog oil, number of pounds of graphite, number of smoke grenades and or/smoke pots, and number of CS grenades expended.

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CHAPTER 13

NON-FIRING TRAINING FACILITIES

13-1. GENERAL.

a. Non-firing training facilities are training structures and sites managed by Range Control that do not involve live fire. See appendix C.

b. Training facilities are scheduled per chapter 4. Those located in training areas (TAs) are scheduled separately from the surrounding maneuver land. Units training in a TA may not enter an unoccupied training facility or interfere with another unit's scheduled training on a facility.

13-2. CONDUCT OF TRAINING.

a. Facility OICs and, as required, RSOs must be safety certified per chapter 1. Site requirements are in appendix C.

b. Training facilities must be signed out from Range Operations by the OIC prior to use. An opening/closing form is issued by Range Operations and must be used during facility operation. Communication between unit and Range Operations is by radio only.

c. Some facilities require support equipment available from Range Supply or from the DPTMS Training Support Center (TSC), or provided by the using unit. See appendix C.

13-3. MAINTENANCE. OICs are encouraged to recon scheduled facilities and to report damage or maintenance problems to Range Operations immediately so that, if possible, repairs can be effected prior to unit use. OICs must check with Range Operations prior to the recon to obtain keys or entry clearance. After-action maintenance requirements are listed on the opening/closing form.

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CHAPTER 14

MANEUVER TRAINING AREAS

14-1. GENERAL.

a. Fort Lewis land for field training outside the cantonment area is divided into Training Areas (TAs) and are identified by numbers on the Fort Lewis 1:50,000 Military Installation Map. See appendix D for descriptions. Training Area 7N is managed as a Close-in Training Area (CTA).

b. Access to TAs for any purpose is forbidden without clearance from Range Operations. TA receipt, communications requirements, and entry and exit reporting procedures are per chapter 1.

c. Fort Lewis perimeter fences and gates will not be cut or breached by units in training.

14-2. CLOSE-IN TRAINING AREAS (CTAs).

a. CTAs are identified on the Fort Lewis 1:50,000 Military Installation Map by letters. Training Area 7N is also managed as a CTA. CTA A East and West, on North Fort, are assigned to the I Corps NCO Academy. The Noble Woods portion of CTA F is assigned to 2d Bn, 75th Ranger Regiment.

b. CTAs B and C are assigned to 3d Bde, 2d ID. CTAs D and E are assigned to 1st Bde, 25th ID(L). Training Area 7N is used for vehicle testing by DOL. Unit access to TA 7N is by coordination through Range Scheduling with DOL Maintenance.

c. Units assigned CTAs will control access and events by subordinate and other units.

14-3. CANTONMENT AREAS. Open spaces inside cantonment areas are controlled for training use by the unit assigned Z-area overwatch in FL Reg 210-10.

14-4. SCHEDULING.

a. TAs are scheduled for multiple units unless sole use is approved by I Corps G3.

b. Multiple use is assigned by priority. The first MSC or tenant unit to schedule into a TA or a training facility in a TA becomes the land coordinator for that TA. All subsequent bids for that TA will be directed to the land coordinator before being accepted. Land coordinator clearance for shared use is required before final scheduling at Range Control. Final approval for a training event rests with Range Control. **It is strongly recommended that unit land coordinators use photocopies**

of the Fort Lewis 1:50,000 MIM or other graphic as a tool in recording land allocations in TAs.

c. Units need not schedule TAs to use range roads enroute to another assigned TA or facility. However, units conducting out-and-back vehicular or foot marches must schedule per chapter 4, listing TAs and routes to be traversed.

d. TA scheduling must include cleanup time for units to ensure that excavations are filled, obstacles are removed, and trash policed.

14-5. TRAINING FACILITIES IN TAs. Some TAs contain training facilities, as listed in appendices B and C. TA scheduling never automatically includes these training facilities, which are off limits without concurrent scheduling. Certain facilities, such as DZs, firing points, and demolitions ranges, are hazardous when hot and must be avoided. Units using TAs must check the Daily Range Schedule to determine training conflicts for a given day.

14-6. CONDUCT OF TRAINING.

a. Excavations must be refilled. All machine-dug excavations such as tank ditches, vehicle emplacements, or foxhole clusters require PW dig permits. See chapter 3. Emplacements or barriers may not be constructed within 300 meters of artillery firing point monuments, nor within 100 meters of training facilities in TAs.

b. Commo wire must be retrieved. The DOIM range cable system may be tapped only at DOIM-installed mag drops, per chapter 1. Barbed wire obstacles and barrier material must be completely removed.

c. Use of foliage for camouflage is prohibited, except for scotch broom. Maximum use should be made of camouflage nets. Trees may not be cut down without clearance from PW Forestry.

d. Units may not unilaterally block access in shared TAs. Temporary traffic delays are authorized, but may not exceed 30 minutes per event.

e. Refuse and garbage must be returned to garrison. Field latrines must be closed and marked. Soapy or chlorinated water may not be drained into streams or lakes. Kitchen sumps, latrines, and refueling operations cannot be located closer than 100 meters from wetlands or streams. Sumps and latrines must be closed prior to departure from the TA.

f. The point of smoke generation for M56 and M58 generators must be at least 200 meters from wetlands, water bodies, or streams.

g. Some roads and rail lines through TAs are State, County, or private easements or rights-of-way, which affects training closures. See below in this chapter.

h. Aerial flares will not be set off within 1000 meters of GAAF, nor when any aircraft are overhead.

i. Temporary signs placed to mark routes or positions must include unit identification and effective dates, and must be removed on completion of the exercise. Spray painting trees or range roads is prohibited.

14-7. FOOT MARCHES.

a. Foot marches are scheduled per Chapter 4 and are confined to road shoulders. Lead and trail personnel must wear reflective belts or vests, visible to front and rear. All vehicles must slow to 10 mph or less when meeting or passing foot marches. Where a range road is paralleled by an adjacent tank trail, foot marches must be on the tank trail. Routes where foot marches must keep off the pavement and road shoulders are:

(1) East Gate Road between the Main Post cantonment area and State Route 507 (ET318127-ET393097).

(2) Story Road around the south and east sides of Training Area 5 (ET285090-ET328104).

(3) 33d Division Road between Cherry Hill and the Roy Gate (ET326110-ET336055).

b. Night foot marches require pilot and trail vehicles with hazard flashers illuminated to warn oncoming or overtaking traffic. Oncoming vehicles will slow to 10 mph 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. Units without TOE military vehicles must use GSA admin vehicles, or must post pilot and trail personnel with white-light flashlights and reflective vests.

c. Units should be aware that some GSA and civilian vehicles feature daytime driving lights that cannot be extinguished by the operator regardless of light conditions. It may be necessary for such vehicles to turn off engines while NVD convoys pass.

14-8. VEHICULAR MARCHES.

a. Convoys are unit movements of five vehicles or more, and are scheduled as noted above.

b. Night vehicular marches are conducted as follows:

(1) Black-out road marches are prohibited in cantonment areas, on public routes listed below, or on the high-speed portion of East Gate Road west of State Route 507.

(2) During black-out road marches, pilot and trail vehicles will be designated. The pilot will flash its headlights to warn oncoming night vision device (NVD) or service-drive vehicles. Blackout marches have right of way. Oncoming vehicles will slow to 10 mph 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 NVD night marches must ensure that unit NVD training programs adhere to AR 600-55 as a minimum, and that pre-event safety briefings include a review of limitations of the devices, especially restriction of peripheral vision, limits in seeing through obscurants (smoke, fog, dust), need for PM and careful handling of NVDs, risk of overdriving field of view, and temporary loss of night vision.

c. Wheeled vehicle convoys crossing any high-speed public route listed later in this chapter, day or night, must place a ground guide to warn convoy vehicles of oncoming traffic. Convoy vehicles must cross one at a time, and must always yield right-of-way to traffic on the civilian route. Between dawn and dusk, and when visibility is otherwise reduced, convoy vehicles must use service drive lights during crossings.

UNDER NO CIRCUMSTANCES WILL UNITS ATTEMPT TO STOP CIVILIAN TRAFFIC ON HIGH-SPEED ROUTES SO THAT CONVOYS CAN HAVE PRIORITY IN CROSSING. CONVOYS AND MILITARY VEHICLES NEVER HAVE THE RIGHT-OF-WAY ON THESE CROSSINGS.

d. Individual vehicles crossing a public route listed below will come to a full stop short of the pavement, turn on service lights, ensure that a clear view is available in both directions, and proceed only when there is ample clearance between vehicles in the cross-traffic.

e. Tracked vehicles may use all improved dirt roads and forest tracks. Sharp pivot turns must be avoided. Fort Lewis has tracked vehicle crossing easements over State Route 507, State Route 510, Rainier Road SE, and some rail lines, as listed. Because these are public or private rights-of-way, the Army cannot regulate oncoming traffic. Tracked vehicles must cross these routes only at easements, without exception. Crossings must be non-tactical and done one vehicle at a time in the intervals between traffic, as outlined above.

14-9. WATERBORNE OPERATIONS.

a. Vehicle swimming, engineer bridging, and small boat assault/recon training are conducted on the Nisqually River, on Sequatchew and Lewis Lakes, and at Solo Point as listed in appendix C. Use of equipment with POL leaks is prohibited.

b. The primary infantry beach assault site is Solo Point (TA 1). Other sites are considered on a case-by-case basis.

c. Chambers Lake (TA 12) is available for dismounted waterborne operations only. Bridging or vehicle operations are prohibited because damage to the lake bed lining may drain the lake underground.

14-10. WATER CROSSING.

a. Vehicle crossings of Muck Creek, South Creek, and the Nisqually River are conducted only at the fording locations listed below, which are indicated by the letter "F" on the Fort Lewis 1:50,000 Military Installation Map, Edition 4-DMA. Grid locations are:

(1) Muck Creek (TAs 13, 14, 15):

(a) ET 387087.

(b) ET 395089.

(c) ET 411085.

(d) ET 416088.

(e) ET 421086.

(f) ET 424076.

(g) ET 434069.

(2) South Creek (TA 15):

(a) ET 432065.

(b) ET 438061.

(3) Nisqually River (TA 18): ET 279037.

14-11. VEHICLE SWIM OPERATIONS. Vehicle swim sites are at Sequalitchew and Lewis Lake. No other sites are available. See appendix C. Water entry and exit are only at the prepared beaches. Use of equipment with POL leaks is prohibited.

14-12. ROAD CLOSURES FOR TRAINING. The Fort Lewis Military Reservation is crossed by many paved and gravel roads and rail tracks with various degrees of public access, easement, or right-of-way. Training closure status of these routes follows:

a. State or County rights-of-way that cannot be blocked for training:

- (1) Interstate 5.
- (2) Steilacoom-Dupont Road (ET 286166 to ET 301229), in CTA A East and West.
- (3) Pacific Highway Southeast (ET231122 to ET 249143), in TA 3N.
- (4) Washington State Route 507 (ET 364064 to ET 428145), in TA 9 and bordering TAs 10, 11, 12, and 13.
- (5) Washington State Route 510 (ET 235063 to ET 246056 and ET 260048 to ET 272023), in TA 19 and bordering TAs 18 and 19.
- (6) Yelm Highway (ET 231058 to ET 238061), in TA 19.
- (7) Rainier Road Southeast (ES 167999 to ES 212944), in TA 23 and bordering TAs 22 and 23.
- (8) All railroad tracks, on or off post.

b. Public access routes that can be temporarily blocked for training, provided notification is provided to County and State officials:

NOTE: Closure of these routes requires a minimum of 90 days lead time. Units begin the process by contacting the Range Operations Officer.

- (1) Goodacre (unpaved) and Rice Kandle (paved) Roads (ET 386090 to ET 449076), in TAs 13, 14, and 15.
- (2) 8th Avenue South (ET 423047 to ET 423127), in TA 9 and 11, and bordering TAs 13 and 14. 15.
- (3) 8th Avenue East (ET 439048 to ET 439128), in TAs 9, 11, and 15.
- (4) 208th Avenue (ET 423128 to ET 431128), in TA 9.

(5) Military Road Southeast (ES 212944 to ES 215945), in TA 21.

(6) Spurgeon Creek Road (ES 177988 to ES 178999), bordering TAs 22 and 23.

(7) Stedman Road (ES 151989 to ES 168998), in TA 23.

c. On-post paved and unpaved roads not listed above may be blocked for training. However, blockages longer than 30 minutes must be noted on the HFL 473 that schedules the event and coordinated with Range Operations so notice can be published in the Daily Range Bulletin.

14-13. TRACKED VEHICLE CROSSING EASEMENTS. See above. Grid locations of mandatory-crossing easements are:

- a. ET 353067, Rail crossing.
- b. ET 365068, Rail/State Route 507 crossing.
- c. ET 357096, Rail crossing.
- d. ET 390096, Rail/State Route 507 crossing.
- e. ET 423088, 8th Avenue South crossing.
- f. ET 408114, Rail/State Route 507 crossing.
- g. ET 376154, Rail crossing.
- h. ES 266036, State Route 510 crossing.
- i. ES 198959, Rainier Road SE crossing.

14-14. MILITARY AND NON-MILITARY COMPATIBLE USES.

a. Military unit commanders may request during initial scheduling or subsequent training event coordination that no non-military use permit holders be allowed in areas they have scheduled for training. If this restriction is granted, Range Control will close appropriate areas. The following military activities are considered incompatible with non-training access and automatically close affected areas:

- (1) Live-fire training events with danger zones extending into training areas.
- (2) Parachute and air assault operations.

(3) Field Artillery firing. The numbered training area occupied by the weapons will be closed.

(4) Training involving riot agents or smoke generating equipment.

(5) Brigade-level exercises.

b. The Installation Range Officer may also close training areas based on density of occupation by military units, unit size, or training to be conducted.

CHAPTER 15

NON-TRAINING USE

15-1. GENERAL.

a. Portions of the range complex may be used for recreational purposes by military personnel and non-military permit holders. Military training has priority.

b. Outdoor recreation activities in impact areas contaminated with unexploded ordnance are prohibited. At Fort Lewis, these are the Artillery and South Impact Areas. Per AR 385-63, no exception can be made.

c. The waters and shorelines of Nisqually and Farnsworth Lakes in the Artillery Impact Area are closed to all activities other than scheduled military training, and scheduled installation operations and maintenance activities such as natural resource management and ITAM studies.

d. Department of Defense (DoD) and contractor personnel on official business are authorized on the range complex per appendix H.

e. Individuals in transit across Fort Lewis on State or County maintained roads, or roads designated for public access by the Installation Commander, require no special permits. See chapter 14 and appendix G.

f. Failure to comply. Persons entering the Fort Lewis range complex without permit or scheduling, which constitute the consent of the Commanding Officer or his designated representative, are in violation of this regulation and trespassing on a controlled access Federal Reservation. Offenders may be cited by Military Police and may be subjected to administrative action or punishment under either the Uniform Code of Military Justice (UCMJ) or Title 18 US Code Section 1382, or Title 50 U.S. Code Section 797, as appropriate to each individual's status. Administrative action may include suspension or loss of recreational privileges, or permanent expulsion from the Military Reservation.

15-2. HUNTING AND FISHING.

a. Hunting and fishing are controlled by DPCA, per Fort Lewis Regulation 215-1. DPCA is the installation point of contact for information on hunting and fishing areas, publishes hunting season and license requirements, and conducts sportsman check-in and check-out.

b. Range Control allocates training areas, drop zones, and the Central Impact Area (Ranges 1-47) for hunting as needed to ensure proper game management during pheasant release and modern firearm deer seasons. Areas allocated to modern firearm deer hunting are closed to both training and other recreational activities.

15-3. OUTDOOR RECREATION.

a. Off-duty recreation for DoD ID card holders is controlled by DPCA Outdoor Recreation. DoD personnel POV access to DPCA recreational facilities listed in appendix F by the most direct route is authorized, but no deviation into TAs, impact areas, or ranges is permitted.

b. Individuals, DoD or civilian, desiring access to the Fort Lewis range complex for recreation off DPCA-managed sites must obtain a Fort Lewis Area Access permit, composed of HFL Form 652 and HFL Form 653. DoD personnel participating in non-commercial recreational activities listed in appendix H must have an Area Access permit.

c. Recreational swimming in Puget Sound and in any stream, pond or lake on Fort Lewis is prohibited year-round, except DPCA beach areas when lifeguards are on duty.

d. The picnic sites on the west and southwest sides of Chambers Lake are closed by artillery firing from FPs 3507, 3607, and 3608, and PADS firing from TA 12.

15-4. OFF DUTY SHOOTING. The Northwest Adventure Center operates ranges for archery and privately-owned weapons. Information on use is available from the Center.

15-5. FORT LEWIS AREA ACCESS OFFICE.

a. DPTMS Range Division operates the Area Access Section to issue permits and grant non-training access to the range complex.

b. Area Access is located in Range Control, Building 4074, at the intersection of Stryker and Kaufmann Avenues, Main Post Fort Lewis. Telephone number is (253) 967-6277. Fax extension is 967-4520. Business hours vary dependent on personnel fill, and are available by calling the above number.

c. Individuals desiring access for authorized activities must register in person at Area Access during business hours. Minimum age is 18 years, except for active duty military personnel. Persons under 18 years of age must be sponsored and accompanied by a parent or legal guardian. Individual registration requires:

- (1) Picture ID.
- (2) Address and telephone number.
- (3) Vehicle identification and license number, if a vehicle is to be brought on post.

(4) Names and ages of minor family members who will accompany a sponsor or permit holder.

(5) Liability release signature.

(6) Certification that intended activities are on the authorized list and are not for profit or fund-raising. Persons who submit false certificates are subject to prosecution in Federal Court under Title 18, United States Code, Section 1001, and the provisions of paragraph 5, above.

d. A wallet-sized permit (HFL Form 653) and a vehicle pass (HFL Form 652) will be issued to each person authorized access. The permit is not transferable. Entry to the Fort Lewis range complex without the permit is prohibited.

e. Access hours are 30 minutes after daylight to 30 minutes before dark, except for specifically authorized overnight activities, and as permitted per FL Reg 215-1.

f. All permit holders must check in with Area Access, either telephonically or in person, no earlier than 0800 the day prior to the event. It is the responsibility of each permit holder to inform a friend or relative of the area being used, the estimated time of return, and the vehicle being used.

g. Except when a Real Estate Agreement land commitment has been coordinated and approved per para 15-6, Area Access will determine when called for entry whether the area requested is available. If the requested area is not open for permit holders and an alternate area cannot be provided or is not acceptable to the requestor, access will be denied.

15-6. NON-MILITARY USE.

a. Individual use. See para 15-5.

b. Fund raising. Fund raising events for non-profit private organizations not affiliated with the Army or Fort Lewis per AR 210-1 require a non-exclusive use Corps of Engineers Real Estate Agreement prior to event scheduling. "Fund raising" includes any collection of fees for participation in an event, for services provided by the organizer during an event, or for selling materials or merchandise during an event by the organizer or other vendors. Requests for fund-raisers by such non-profit organizations, to be conducted on the Fort Lewis range complex, will be sent to the Director of Public Works (PW) Real Property Branch. Corps of Engineers Real Estate Agreements require up to 4 months to process and include payment of an administrative fee, with actual costs determined on a case by case basis. Requests by private organizations for fundraisers in the cantonment area are processed per AR 210-1 by the Director of Personnel and Community Activities (DPCA).

c. Land commitments for non-military activities. Groups or organizations not affiliated with the Army or Fort Lewis per AR 210-1, whose activity requires advanced commitment of a specific site or area must obtain a non-exclusive use Corps of Engineers Real Estate Agreement per Para 4c above. Groups with approved Real Estate Agreements may request land by letter to Fort Lewis Range Division no earlier than 120 days prior to the event. Requests will be processed and scheduled in order of receipt. Actual commitments of land will not be made until after the Monthly Range Scheduling Conference covering the time period in question, which usually occurs 6-8 weeks prior. Groups who need military equipment or other special support from Fort Lewis must apply in writing directly to the I Corps Public Affairs Office (PAO). Requests for any DPCA recreational facility listed in appendix F must be made directly to DPCA.

d. Commercial use. Individuals or organizations using the range complex for profit-generating activities must possess a Corps of Engineers Real Estate Agreement per above. Entry point for these agreements is the Fort Lewis Public Works Support Division Real Property Officer. Profit-generating activities include collection of fees for services performed on the range complex, or selling materials collected from the range complex. Real Estate Agreement holders must check into the range complex daily by calling or coming to Area Access with proof of authorization from the Corps of Engineers or Public Works.

15-7. FIREWOOD.

a. The Seattle Engineer District Forest Resources Section, Building T-7958, sells permits for firewood collection on Fort Lewis. Permits are not issued for ranges or impact areas.

b. The firewood permit must be in the possession of the cutter or the group leader, and firewood may be collected only in the permit-designated area.

15-8. TRAINING CONFLICTS. Trainers encountering recreational users will ensure that military activities are in the location scheduled by the unit, and then will inform the non-training party of military activities and hazards. Range Operations will be informed by radio of the conflict. Permit holders are usually Fort Lewis neighbors and will avoid training sites. If the situation cannot be resolved, Range Operations will request assistance from the Military Police.

CHAPTER 16

RANGE CONTROL SYSTEM

16-1. GENERAL. Fort Lewis Range Division is the Installation agency responsible for providing safe, functional training facilities, and for allocating and assigning training land to meet priorities and needs. Range Control also hosts the Area Access Office and the Integrated Training Area Management (ITAM) office.

16-2. RANGE HEADQUARTERS. Range Headquarters is in Bldg 4074 and 4076 (ET 28751520) on Main Post at Kaufman and Stryker Avenues, southeast of the Dupont Gate. Scheduling, coordination, and use of the range complex, as well as issue and return of range equipment and targets, are done at Range Headquarters. NOTE: The location of Range Control on the Edition 4-DMA MIM, at ET317154, is out of date.

16-3. RANGE OPERATIONS BRANCH. Range Operations schedules and controls ranges, non-firing facilities, training areas, training airspace, and non-military use. Operations also conducts safety briefings and signs out facilities. Range Operations is the routine and emergency communication base station for training on the Fort Lewis range and training area complex. As the Installation controlling authority for use of the range complex, Range Operations issues orders regarding opening and closing of training facilities, routine and emergency check-fires, resolution of training conflicts, and reallocation of resources. Avoiding interference with training is inherent in the Range Control mission. However, operational and safety directives from Range Operations Duty NCOs, Range Inspectors, the Range Operations Officer, the Range Facilities Engineer, or the Range Officer must be obeyed immediately, with discussion and resolution of issue to follow.

16-4. RANGE INSPECTION SECTION. The Range Inspection Section of Operations Branch patrols the range complex to assist units and to enforce regulations. Range Inspectors interpret SOPs and other guidance for training OICs, and are authorized to temporarily check-fire ranges or stop training on facilities if safety violations are noted. Inspection NCOs also check facilities condition and police after training.

16-5. LIVE FIRE SECTION. The Range Live Fire Section is composed of the Armor Master Gunner, the Live Fire NCO, and when assigned the targetry team chiefs and targetry operators. The Live Fire Section assists range OICs in completion of the range contract package, range walks, SDZ overlays, targetry emplacement and use, and other live-fire exercise coordination.

16-6. AREA ACCESS SECTION. The Area Access Section in Bldg 4074 functions as part of Range Operations per chapter 15.

16-7. RANGE FACILITIES BRANCH. The Range Facilities Branch schedules and performs organizational maintenance and repairs on the range complex. Facilities Branch also provides materials through the Supply Section, and liaison with PW to request, coordinate, and complete work beyond Range Control capabilities.

16-8. RANGE SUPPLY SECTION.

a. Range Supply is in Bldg 4076, next to Range Headquarters on Kaufman Avenue, Main Post Fort Lewis. Range Supply performs supply, property accountability, and inventory control functions in support of the Range Control mission, and provides non-electric targets for ranges per appendix B. Target services and the forecast, issue, and return cycle are described in appendix E.

b. Range Supply also issues barriers for road closures, equipment and materials required for use of facilities such as the LRC, and selected repair materials for unit overwatch maintenance of facilities per FL Reg 210-10.

c. To ensure reliable training support while meeting other mission-essential requirements, Range Supply customer service hours must be limited. Service hours are posted at Range Operations, Range Supply, and on the DPTMS Range Division portion of the Fort Lewis Worldwide Web Page.

16-9. RANGE MAINTENANCE DETAIL.

a. The Range Maintenance Detail is tasked by I Corps G3 CCTO under the Routine Tasking Memorandum to perform minor maintenance, repair, and construction on the Fort Lewis range complex under direction of the Range Facilities Engineer.

b. The detail is composed of one NCO and a squad of soldiers with a dedicated vehicle. The vehicle driver may be one of the detail soldiers. Whenever possible, the same crew will be provided throughout the detail period. These personnel must arrive at Range Control by 0900 on duty days. Detail soldiers must have leather gloves, must be dressed for seasonal outdoor physical labor, and may require helmets for certain projects. All, including separate rations personnel, must bring sack lunches and a canteen of water. The Range Control NCOIC will coordinate exact uniform and other requirements with the tasked unit CSM or 1SG. Because work is often performed at remote sites, detail personnel cannot be returned to garrison for lunch or appointments. Personnel on sick call, possessing work-limiting profiles, or required for appointments may not be assigned to the detail.

c. The Range Maintenance NCO will ensure that the detail unit receives notice of usual projects, such as painting, that may cause damage to soldiers' uniforms.

16-10. INTEGRATED TRAINING AREA MANAGEMENT (ITAM) SYSTEM. The Fort Lewis ITAM office is in Bldg 4074 with Range Headquarters and is the Land Management Branch of Range Division. ITAM integrates training and land management. Its objectives are:

- a. Inventory, monitor, and evaluate trends and capabilities of training land, through Land Condition Trend Analysis (LCTA).
- b. Enhance, improve, and repair training lands, through Land Rehabilitation and Maintenance (LRAM).
- c. Encourage land stewardship through an educational program, called Environmental Awareness (EA).
- d. Integrate training and land management, through Training Requirements Integration (TRI).

16-11. RANGE CONTROL PUBLICATIONS. Range Control manages publications as follows:

- a. This regulation.
- b. Fort Lewis Range Development Plan and Regulation (FL Reg 350-6).
- c. Standing Operation Procedures (SOP) for ranges, non-firing training facilities, and training areas, with user's guidance and requirements.
- d. Artillery and mortar firing safety data, and the PADS firing SOP.
- e. Daily Range Schedule.
- f. Forms, reports, users' handbooks, and instruction guides as listed in this regulation.
- g. Range Scheduling Conference announcements.

- h. The Fort Lewis 1:50,000 Military Installation Map.
- i. Internally-produced GIS and ArcView map products.
- j. ITAM environmental awareness materials.

FOR THE COMMANDER:


ROGER L. BRAUTIGAN
Major General, USA
Deputy Commanding General/
Chief of Staff

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APPENDIX B - Ranges
APPENDIX C - Training Facilities
APPENDIX D - Training Areas
APPENDIX E - Targets
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APPENDIX I - Unauthorized Activities in Maneuver Training Areas

DISTRIBUTION:
C,D,G

APPENDIX A

REFERENCES

Section I Required Publications

AR 210-21, Army Ranges and Training Land Program

AR 385-62, Regulations for Firing Guided Missiles and Heavy Rockets for Training, Target Practice and Combat

AR 385-63, Policies and Procedures for Firing Ammunition for Training, Target Practice, and Combat, with FORSCOM Supplement 1

AR 385-64, U. S. Army Explosives Safety Program

AR 405-80, Granting Use of Real Estate

AR 600-55, The Army Driver and Operator Standardization Program

FL Reg 95-1, Local Flying Regulations

FL Reg 200-1, Environmental Protection and Enhancement

FL Reg 210-1, Fort Lewis Post Regulations

FL Reg 210-10, Police of the Fort Lewis Military Reservation

FL Reg 215-1, Hunting, Fishing and Trapping

FL Reg 350-1, Training

FL Reg 350-2, Training Support

FL Reg 420-5, Federally-Listed Threatened Endangered and Candidate Species

FL Reg 700-20, Ammunition

FL Pam 385-1-1, I Corps and Fort Lewis Risk Management Guide: Tactical Training and Operations

Section II Related Publications

Federal Aviation Regulation Part 105 (FAR 105, Parachute Jumping)

Department of Defense Flight Information Pamphlet

AR 95-1, Flight Regulations

AR 210-1, Private Organizations on Department of Army Installations, with Fort Lewis Supplement 1

AR 405-80, Utilization of Real Estate

DA Pam 385-64, Ammunition and Explosives Safety Standards

FORSCOM Supplement 1 to AR 115-11, Climatic, Hydrological, and Topographic Services

TM 9-1370-207-10, Operator's Manual for Pyrotechnic Simulators

TC 25-1, Training Land

TC 25-8, Training Ranges

DD Form 1972, Joint Tactical Air Strike Request

DA Form 3938, Local Service Request

HFL Form 473, Training Resource Request

HFL Form 652, Range Control Vehicle Permit

HFL Form 653, Range Control Area Access Card

HFL Form 1371, Fort Lewis Airman Advisory

HFL Form 2035, Training Resource Cancellation

Installation Compatible Use Noise Zoning (ICUZ) Study Number 52-34-0468-83,
Substitution of M198 Howitzer for 105mm Howitzer Firing, Fort Lewis, WA, 24-28 Jan
83

APPENDIX B

RANGES

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B-3. RIFLE RANGES.

- a. RANGE: Range 1, 16-Point Rifle Record Fire.
 LOCATION: Central Impact Area, ET 333148.
 AMMUNITION: 5.56mm.
 FIRING HOURS: 0001-2400.
 MEDICAL: Per chapter 1.
 COMMO: FM/VHF radio.
 PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line
 Safety NCOs (recommend 1 per 4 firing points); ammo guard.

TARGETS: Buried-cable M31A1 target lifters at 50, 100, 150, 200, 250, 300 meters.

ALTERNATE USES: By contract.

REMARKS: Public Address system (PA) from unit. Mag drop per chapter 1.

- b. RANGE: Range 2, 110 Point Rifle Zero.

LOCATION: Central Impact Area, ET 333144.

AMMUNITION: 5.56mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 10 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes obtained from Range Supply. Frames for silhouettes pre-set at 25 meters. Target placement by OIC. Target requests per chapter 15 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1.

- c. RANGE: Range 3, 60-Point Rifle Zero.

LOCATION: Central Impact Area, ET 333139.

AMMUNITION: 5.56mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 10 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes obtained from Range Supply. Frames for silhouettes pre-set at 25 meters. Target placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: Allocated as the 24-hour EDRE/deployment zero range.

Overhead lights installed for night zero fire. PA from unit. Mag drop per chapter 1.

- d. RANGE: Range 4, 35-Point Rifle Field Fire.

LOCATION: Central Impact Area, ET 333137.

AMMUNITION: 5.56mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Buried-cable M31A1 target lifters at 75, 175, 300 meters.

ALTERNATE USES: NVG night fire range. Other use by contract.

REMARKS: PA from unit. Mag drop per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels.

- e. RANGE: Range 5, 16-Point Rifle Record Fire.
LOCATION: Central Impact Area, ET 330133.
AMMUNITION: 5.56mm.
FIRING HOURS: 0001-2400.
MEDICAL: Per chapter 1.
COMMO: FM/VHF radio.
PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 4 firing points); ammo guard.
TARGETS: Buried-cable M31A1 target lifters at 50, 100, 150, 200, 250, 300 meters.
ALTERNATE USES: By contract.
REMARKS: PA from unit. Mag drop per chapter 1.
- f. RANGE: Range 6, 60-Point Rifle/Saw Zero.
LOCATION: Central Impact Area, ET 330131.
AMMUNITION: 5.56mm.
FIRING HOURS: 0001-2400.
MEDICAL: Per chapter 1.
COMMO: FM/VHF radio.
PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 10 firing points); ammo guard.
TARGETS: Rifle zero targets on cardboard E-silhouettes obtained from Range Supply/Support. Frames for rifle zero targets pre-set at 25 meters. Holders for 10-meter M60/SAW zero frames pre-set on the right (south) end of the range. Target requests per chapter 16 and appendix E.
ALTERNATE USES: M60/M240/M249 zero. Other uses by contract.
REMARKS: PA from unit. Mag drop per chapter 1.
- g. RANGE: Range 8, 44-point Known Distance (KD) with 100, 200, 300 yard Firing Lines.
LOCATION: Central Impact Area, ET328124.
AMMUNITION: 5.56mm.
FIRING HOURS: 0001-2400.
MEDICAL: Per chapter 1.
COMMO: FM/VHF radio; unit-emplaced wire or radio from OIC to target pits.
PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 4 firing points); ammo guard; target pit OIC; target pit assistant OIC (recommend 2); target operators (recommend 3 per 2 targets); firing coaches per doctrine.
TARGETS: KD targets obtained from Range Supply by OIC and mounted by pit crews on downrange target lifters. Target requests per chapter 16 and appendix E. Requests must specify type target required, per TC 25-8.
ALTERNATE USES: By contract.
REMARKS: PA from unit. Mag drop per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels.
- h. RANGE: Range 9, 35-Point Rifle Field Fire.

LOCATION: Central Impact Area, ET 327121.

AMMUNITION: 5.56mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Buried-cable M31A1 target lifters at 75, 175, 300 meters.

ALTERNATE USES: NVG night fire range. Other use by contract.

REMARKS: PA from unit. Mag drop per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels. Closes Range 10.

i. RANGE: Range 12, 16-Point Remoted Target System (RETS) Modified Record Fire (MRF) for computer-scored rifle qualification/NBC/night fire.

LOCATION: Central Impact Area, ET 333111.

AMMUNITION: 5.56mm.

FIRING HOURS: 0001-2400 daily.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (grade per chapter 1); certified computer operator per chapter 1; evac vehicle driver; firing line Safety NCOs (recommend 1 per 4 firing points); ammo guard.

TARGETS: Buried-cable M64 target lifters at 50, 100, 150, 200, 250, 300 meters.

ALTERNATE USES: By contract.

REMARKS: PA installed in tower. Telephone per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels. See chapter 1 for computer certification. Tower occupation limited to computer operator and PA operator.

j. RANGE: Range 16, 110-Point Rifle Zero.

LOCATION: Central Impact Area, ET 341107.

AMMUNITION: 5.56mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 10 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes obtained from Range Supply/Support. Frames for silhouettes pre-set at 25 meters. Target placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1.

k. RANGE: Range 20, Sniper Field Fire.

LOCATION: Central Impact Area, ET 349101.

AMMUNITION: Through 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs per doctrine; ammo guard.

TARGETS: Electrical target lifters plus metal and cardboard E-type silhouettes at various ranges to 1000 yards. Cardboard targets from Range Supply. Target placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Barriers to block the road downrange receipted from Range Supply. Closed by downrange activity on Range 19 and firing on Range 21. Use of tracer and pyrotechnics affected by fire hazard levels. Mag drop per chapter 1.

l. RANGE: Range 21, 24-point Known Distance (KD) with 100, 200, 300, 400, 500, 600 yard Firing Lines.

LOCATION: Central Impact Area, ET351103.

AMMUNITION: 5.56mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio; unit-emplaced wire or radio from OIC to target pits.

PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 4 firing points); ammo guard; target pit OIC; target pit assistant OIC (recommend 2); target operators (recommend 3 per 2 targets); firing coaches per doctrine.

TARGETS: KD targets obtained from Range Supply by OIC and mounted by pit crews on downrange target lifters. Target requests per chapter 16 and appendix E. Requests must specify type target required, per TC 25-8.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Closed by firing on Range 20 and 1000-yard firing on Range 22. Mag drop per chapter 1.

m. RANGE: Range 22, 48-Point Known Distance (KD) with 100, 200, 300, 400, 500, 600 and 1000-Yard Firing Lines.

LOCATION: Central Impact Area, ET 354103.

AMMUNITION: 5.56mm, 7.62mm, .50 cal sniper weapons.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio; unit-emplaced wire or radio from OIC to target pits.

PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 4 firers); ammo guard; target pit OIC; target pit assistant OIC (recommend 2); target operators (recommend 3 per 2 targets); firing coaches as required.

TARGETS: KD targets obtained from Range Supply by OIC and mounted by pit crews on downrange target lifters. Target requests per chapter 16 and appendix E. Requests must specify type target required, per TC 25-8.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Barriers to block 600-yard road during 1000-yard firing receipted from Range Supply. Mag drop per chapter 1. Closes Range 23.

n. RANGE: Range 29, 60-Point Rifle/M249 Zero.

LOCATION: Central Impact Area, ET 364125.

AMMUNITION: 5.56mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 10 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes, or M249 targets on frames obtained from Range Supply/Support. Frames for rifle silhouettes are pre-set at 25 meters. Boots for mounting M249 targets are at 10 meters. Target placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: Part of the Urban Assault Course. PA from unit. Use of tracer and pyrotechnics affected by fire hazard levels. Mag drop per chapter 1.

o. RANGE: Range 30, 30-Point Night Fire Range.

LOCATION: Central Impact Area, ET 365130.

AMMUNITION: 5.56mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: For basic rifle night fire, buried-cable M31A1 target lifters linked to M40 hit counters in the base of the tower. Firing lines are located at 25 and 50 meters from the targets. For NVG night fire, buried-cable M31A1 target lifters at 75, 175, and 300 meters, with firers using the baseline foxhole firing positions.

ALTERNATE USES: NVG night fire. Other uses by contract.

REMARKS: PA from unit. Safety personnel must be equipped with flashlights. Use of tracer and pyrotechnics affected by fire hazard levels. Mag drop per chapter 1.

p. RANGE: Range 32, 110-Point Rifle/M249 Zero.

LOCATION: Central Impact Area, ET 369137.

AMMUNITION: 5.56mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 10 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes, or M249 targets on frames obtained from Range Supply/Support. Frames for rifle silhouettes are pre-set

at 25 meters. Target placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Use of tracer and pyrotechnics affected by fire hazard levels. Mag drop per chapter 1.

q. RANGE: Range 89 and 90, 15-point MG and Rifle Zero Ranges. See Para B-1c, below.

r. RANGE: Range 105, 20-Point Rifle and MG Zero Range.

LOCATION: North Fort Impact Area, ET 286195.

AMMUNITION: 5.56 mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes in frames, or MG zero targets glued to frames, obtained from Range Supply. Holes for frames are pre-set at 10 and 25 meters. Frame placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By arrangement with Range Operations.

REMARKS: PA from unit. Mag drop per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels.

s. RANGE: Range 106, 20-Point Rifle and MG Zero Range.

LOCATION: North Fort Impact Area, ET 286195.

AMMUNITION: 5.56 mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes in frames, or MG zero targets glued to frames, obtained from Range Supply. Holes for frames are pre-set at 10 and 25 meters. Frame placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels.

t. RANGE: Range 107, 20-Point Rifle and MG Zero Range.

LOCATION: North Fort Impact Area, ET 286196.

AMMUNITION: 5.56 mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes in frames, or MG zero targets glued to frames, obtained from Range Supply. Holes for frames are pre-set at 10 and 25 meters. Frame placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels.

- u. RANGE: Range 112, 20-Point Rifle and MG Zero Range.

LOCATION: North Fort Impact Area, ET 289197.

AMMUNITION: 5.56 mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes in frames, or MG zero targets glued to frames, obtained from Range Supply. Holes for frames are pre-set at 10 and 25 meters. Frame placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels.

- v. RANGE: Range 113, 20-Point Rifle and MG Zero Range.

LOCATION: North Fort Impact Area, ET 290198.

AMMUNITION: 5.56 mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes in frames, or MG zero targets glued to frames, obtained from Range Supply. Holes for frames are pre-set at 10 and 25 meters. Frame placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels.

- w. RANGE: Range 114, 15-Point Rifle and MG Zero Range.

LOCATION: North Fort Impact Area, ET 290198.

AMMUNITION: 5.56 mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes in frames, or MG zero targets glued to frames, obtained from Range Supply. Holes for frames are pre-set at 10 and 25 meters. Frame placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels.

B-4. PISTOL RANGES.

a. RANGE: Range 4P, 2-Point Combat Pistol Qualification Course.

LOCATION: Central Impact Area, ET 333136.

AMMUNITION: 9mm, 38 cal, .45 cal, military shotgun.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs; ammo guard.

TARGETS: Buried-cable M31A1 target lifters at 10, 13, 16, 17, 23, 27 and 31 meters.

ALTERNATE USES: Military shotgun familiarization fire per range SOP.

Other uses by contract.

REMARKS: PA from unit. Telephone mag drop per chapter 1.

b. RANGE: Range 18, 7-Point Combat Pistol Qualification.

LOCATION: Central Impact Area, ET345105.

AMMUNITION: 9mm, 38 cal, .45 cal, military shotgun.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 4 firing points); ammo guard.

TARGETS: Buried-cable M31A1 Target lifters at 10, 13, 16, 17, 23, 27 and 31 meters.

ALTERNATE USES: Military shotgun familiarization fire per range SOP.

Other uses by contract.

REMARKS: PA from unit. Mag drop per chapter 1. Closed by downrange activity on R19.

c. RANGE: Range 35, Police Pistol, assigned to FBI per interagency support agreement. Use per coordination with FBI and by arrangement with Range Operations. Radio commo required. Closes Range 36.

d. RANGE: Range 108 and 109, Pistol/Rifle, assigned to USAF per interservice support agreement. Use of tracer and pyrotechnics affected by fire hazard levels.

e. RANGE: Range 110, 20-Point Pistol Familiarization.

LOCATION: North Fort Impact Area, ET 287196.

AMMUNITION: 9mm, 38 cal, .45 cal.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Cardboard E-silhouettes on stakes. Stake brackets pre-set in mechanical target-turning device on range. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1.

f. RANGE: Range 111, 15-Point Pistol Familiarization.

LOCATION: North Fort Impact Area, ET 287196.

AMMUNITION: 9mm, 38 cal, .45 cal.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Cardboard E-silhouettes on stakes. Stake brackets pre-set in mechanical target-turning device on range. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1.

B-5. MACHINEGUN RANGES.

a. RANGE: Range 52, MG Field Fire.

LOCATION: Artillery Impact Area, ET 256082.

AMMUNITION: 5.56mm, 7.62mm, .50 cal, other per contract.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); RTO; evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Fixed vehicle hulks downrange. OIC may place other targets by contract. Target requests per chapter 16 and appendix E.

ALTERNATE USES: Squad and Platoon Defensive Live-Fire, MK19 40mm TP, Helicopter Aerial Gunnery, other by contract.

REMARKS: PA from unit. .50 cal MG must be fired per Range SOP. Use not affected by fire hazard levels. Mag drop per chapter 1. Closes FP 2507, Range 51, Range 58.

b. RANGE: Range 53, 2-Lane M249/M60/M240/M2 MG Transition

LOCATION: Artillery Impact Area, ET 256085.

AMMUNITION: 5.56mm, 7.62mm, .50 cal, other per contract.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); RTO; evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Single and multi-silhouette buried-cable M31A1 target lifters, controlled from the tower.

ALTERNATE USES: By contract.

REMARKS: Remote controlled targets and PA from unit. .50 cal MG must be fired per Range SOP. Use not affected by fire hazard levels. Mag drop per chapter 1. Access to Artillery Impact Area beyond the firing line must be obtained for each entry from Range Operations, per range SOP. Closes FP 2508, Mortar 1, Range 51, Range 58.

c. RANGE: Range 89, 15-Point MG and Rifle Zero Range.

LOCATION: South Impact Area, ET 307041.

AMMUNITION: 5.56 mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes in frames, or MG zero targets glued to frames, obtained from Range Supply. Holes for frames are pre-set at 10 and 25 meters. Frame placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels.

d. RANGE: Range 90, 15-Point MG and Rifle Zero Range.

LOCATION: South Impact Area, ET 308041.

AMMUNITION: 5.56 mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Rifle zero targets on cardboard E-silhouettes in frames, or MG zero targets glued to frames, obtained from Range Supply. Holes for frames are pre-set at 10 and 25 meters. Frame placement by OIC. Target requests per chapter 16 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1. Use of tracer and pyrotechnics affected by fire hazard levels.

c. RANGE: Range 91, RETS 10-Point M249/M60/M240 Transition with 10-Point MG Zero.

LOCATION: South Impact Area, ET 303041.

AMMUNITION: 5.56mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); computer operator; evac vehicle driver; firing line Safety NCOs (recommend 1 per 3 firing points); ammo guard. If zero and transition fire are conducted simultaneously, OIC must place RSOs and Safety NCOs on both sites.

TARGETS: The transition range has buried-cable single M64 targets at 100-200-300 meters, and mixed multiple targets from 400 to 800 meters. The zero range has MG zero boots for frames pre-set at 10 meters. Zero target requests per chapter 15 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1. Closes HALO drops on Marion DZ. Use of tracer and pyrotechnics affected by fire hazard levels.

d. RANGE: Range 93, 6-Point RETS M249/M60/M240 Transition and Night Fire with 10-Point MG Zero.

LOCATION: South Impact Area, ET 294041.

AMMUNITION: 5.56mm, 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radios with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); certified computer operator; RTO; evac vehicle driver; firing line Safety NCOs (recommend 1 per 3 firing points); ammo guard. If zero and transition fire are conducted simultaneously, OIC must place RSOs and Safety NCOs at both sites.

TARGETS: The transition range has buried-cable single M64 targets at 100-200-300 meters, and mixed multiple targets from 400 to 800 meters. The zero range has boots for MG zero frames at 10 meters. Zero target requests per chapter 15 and appendix E.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1. Closes HALO drops on Marion DZ. Use of tracer and pyrotechnics affected by fire hazard levels.

e. RANGE: Range 105, 106, 107, 112, 113, 114. 20-Point Rifle and MG Zero Ranges. See Para B-3 above.

B-6. LIVE-FIRE MANEUVER RANGES.

NOTE: All live-fire maneuver ranges require contracts and surface danger zone overlays for each use. There are no fixed-scenario SOPs for these ranges on file at Range Control. Contracts are per chapter 9. Live-fire maneuver is not confined to the ranges listed below. Any suitable existing range, or other site, that can contain the effects of the weapons to be fired will be considered for use as a live-fire maneuver site, per unit Commander's program. The unit must provide radio-equipped guards to secure event-driven danger zones that are not normally part of the live-fire area. Use of live-fire maneuver ranges may be affected by fire hazard levels, per chapter 1, as noted below.

a. RANGE: Range 10, Squad Offense/Ambush.
LOCATION: Central Impact Area, ET 327116.
AMMUNITION: 5.56mm, 7.62mm, .45 cal, 9mm, 40mm TP, AT-4 sub-cal, 1/4-pound demolitions, pyrotechnics, claymore.
FIRING HOURS: 0001-2400.
MEDICAL: Per chapter 1.
COMMO: FM/VHF radio.
PERSONNEL: OIC and RSO (Grade per chapter 1); OCs per unit commander; ammo guard.
TARGETS: Radio-controlled or mechanical pop-up targets. Target array per unit scenario.
ALTERNATE USES: By contract.
REMARKS: Use of tracer and pyrotechnics affected by fire hazard levels. Hostile-fire simulators and radio-controlled targets from TSC. Unit scenario may require closure of other ranges or training areas. Closes Range 9.

b. RANGE: Range 23, Trench.
LOCATION: Central Impact Area, ET 355103.
AMMUNITION: 5.56mm, 7.62mm, .45 cal, 9mm, 40mm TP, AT-4 sub-cal, 1/4-pound demolitions, pyrotechnics, claymore.
FIRING HOURS: 0001-2400.
MEDICAL: Per chapter 1.
COMMO: FM/VHF radio.
PERSONNEL: OIC and RSO (Grade per chapter 1); OCs per unit commander; ammo guard.
TARGETS: Radio-controlled or mechanical pop-up targets. Target array per unit scenario.
ALTERNATE USES: By contract.

REMARKS: Use of tracer and pyrotechnics affected by fire hazard levels. Hostile-fire simulators and radio-controlled targets from TSC. Closes Range 22.

c. RANGE: Range 36, Squad Ambush/Offense/Defense.
LOCATION: Central Impact Area, ET 370149.
AMMUNITION: 5.56mm, 7.62mm, .45 cal, 9mm, 40mm TP, AT-4 sub-cal, 1/4-pound demolitions, pyrotechnics, claymore.
FIRING HOURS: 0001-2400.
MEDICAL: Per chapter 1.
COMMO: FM/VHF radio.
PERSONNEL: OIC and RSO (Grade per chapter 1); OCs per unit commander; ammo guard.
TARGETS: Radio-controlled or mechanical pop-up targets. Target array per unit scenario.
ALTERNATE USES: By contract.
REMARKS: Use of tracer and pyrotechnics affected by fire hazard levels. Hostile-fire simulators and radio-controlled targets from TSC. Unit scenario may require closure of other ranges or training areas. Closes Range 35.

d. RANGE: Range 39, Squad Forced-March Live-Fire/Squad Defense.
LOCATION: Central Impact Area, ET 359155.
AMMUNITION: 5.56mm, 7.62mm, .45 cal, 9mm, 40mm TP, AT-4 sub-cal, 1/4 -pound demolitions, pyrotechnics, claymore.
FIRING HOURS: 0001-2400.
MEDICAL: Per chapter 1.
COMMO: FM/VHF radio.
PERSONNEL: OIC and RSO (Grade per chapter 1); OCs per unit commander; ammo guard.
TARGETS: Buried-cable M31A1 target lifters in 3 banks between 100 and 350 meters downrange. Controls in tower can be adjusted to allow individual target exposure per scenario. Additional radio-controlled targets may be placed by the OIC.
ALTERNATE USES: By contract.
REMARKS: Use of tracer and pyrotechnics affected by fire hazard levels. Hostile-fire simulators and radio-controlled targets from TSC. Unit scenario may require closure of other ranges or training areas.

e. RANGE: Range 40, Squad Offense.
LOCATION: Central Impact Area, ET 354157.
AMMUNITION: 5.56mm, 7.62mm, .45 cal, 9mm, 40mm TP, AT-4 sub-cal, 1/4 -pound demolitions, pyrotechnics, claymore.
FIRING HOURS: 0001-2400.
MEDICAL: Per chapter 1.
COMMO: FM/VHF radio.
PERSONNEL: OIC and RSO (Grade per chapter 1); OCs per unit commander; ammo guard.

TARGETS: Buried-cable M31A1 target lifters in 6 banks between 50 to 300 meters downrange. Additional manual pop-up or radio-controlled targets may be placed by the OIC.

ALTERNATE USES: By contract.

REMARKS: Use of tracer and pyrotechnics affected by fire hazard levels. Hostile-fire simulators and radio-controlled targets from TSC. Unit scenario may require closure of other ranges or training areas. Existing empty target coffins may not be used for demolitions or for cover by assaulting troops.

f. RANGE: Range 41, 3-Lane Individual Movement Techniques Course.

LOCATION: Central Impact Area, ET 351158.

AMMUNITION: 5.56mm, 9mm, 40mm TP, pyrotechnics.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); one OC per lane; ammo guard.

TARGETS: E-silhouettes on stakes, manual pop-up, or radio-controlled targets placed by the OIC.

ALTERNATE USES: By contract.

REMARKS: Use of tracer and pyrotechnics affected by fire hazard levels. Hostile-fire simulators and radio-controlled targets from TSC. Unit scenario may require closure of other ranges or training areas. Existing empty target coffins may not be used for demolitions or for cover by assaulting troops.

g. RANGE: Range 51, Squad/Platoon Offense and Defense.

LOCATION: Artillery Impact Area, ET 260075.

AMMUNITION: 5.56mm, 7.62mm, .45 cal, 9mm, 40mm TP, AT-4 sub-cal, 1/4 - pound demolitions, pyrotechnics, claymore, mortars, artillery.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); OCs per unit commander; RTO; ammo guard.

TARGETS: Radio-controlled or mechanical pop-up targets. Target array per unit scenario.

ALTERNATE USES: By contract.

REMARKS: Hostile-fire simulators and radio-controlled targets from TSC. Unit scenario may require closure of other ranges or training areas. Closes FP 2507, Range 52, Range 53.

h. RANGE: Range 60, Squad/Platoon Offense.

LOCATION: Artillery Impact Area, ET 276090.

AMMUNITION: 5.56mm, 7.62mm, .45 cal, 9mm, 40mm TP, AT-4 sub-cal, 1/4 - pound demolitions, pyrotechnics, claymore, mortars, artillery.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); OCs per unit commander; RTO; ammo guard.

TARGETS: Radio-controlled or mechanical pop-up targets. Target array per unit scenario.

ALTERNATE USES: By contract.

REMARKS: Hostile-fire simulators and radio controlled targets from TSC. Unit scenario may require closure of other ranges or training areas. Closes Range 59.

i. RANGE: Range 74, Squad/Platoon Offense.

LOCATION: Artillery Impact Area, ET 325094.

AMMUNITION: 5.56mm, 7.62mm, .45 cal, 9mm, 40mm TP, AT-4, 1/4-pound demolitions, pyrotechnics, claymore, mortars, artillery.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); OCs per unit commander; RTO; ammo guard.

TARGETS: Radio-controlled or mechanical pop-up targets. Target array per unit scenario.

ALTERNATE USES: Primary use is tank/Bradley gunnery. Other use is secondary.

REMARKS: Hostile-fire simulators and radio-controlled targets from TSC. Unit scenario may require closure of other ranges or training areas. Two moving target tracks are located approximately 1000 meters and 1500 meters downrange from the tower. Moving target carriers are available from Range Supply for unit emplacement and operation. Advanced coordination required. Closes Range 76.

NOTE: Range 74 is primarily a tank/Bradley gunnery range. Uses that damage vehicle and target emplacements will not be approved.

j. RANGE: Range 76, Squad/Platoon Offense/Trench.

LOCATION: Artillery Impact Area, ET 330082.

AMMUNITION: 5.56mm, 7.62mm, .45 cal, 9mm, 40mm TP, AT-4 sub-cal, 1/4-pound demolitions, pyrotechnics, claymore, mortars, artillery.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); OCs per unit commander; RTO; ammo guard.

TARGETS: Radio-controlled or mechanical pop-up targets. Target array per unit scenario.

ALTERNATE USES: By contract.

REMARKS: Hostile-fire simulators and radio-controlled targets from TSC. Unit scenario may require closure of other ranges or training areas. Closes FP 3308A, Range 74, Mortar 9 and Mortar 10. Range 76 includes two primary objectives, a small trench with two bunkers vicinity grid ET 328083, and a large trench complex vicinity grid ET 322079. Use of the large trench closes Range 74 and other facilities; advanced coordination required. Mortars and artillery may not be fired onto the trenches. Priority of use on the large trench is to units conducting heavy-light live fire exercises.

k. RANGE: Range 87, Squad/Platoon Offense.

LOCATION: South Impact Area, ET 320046. Range 87 comprises most of grid squares ET3104, 3204, 3105, and 3205.

AMMUNITION: 5.56mm, 7.62mm, .45 cal, 9mm, 40mm TP, AT-4 sub-cal, 1/4-pound demolitions, pyrotechnics, claymore.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); OCs per unit commander; RTO; ammo guard.

TARGETS: Radio-controlled or mechanical pop-up targets. Target array per unit scenario.

ALTERNATE USES: By contract.

REMARKS: Use of tracer and pyrotechnics affected by fire hazard levels. Hostile-fire simulators and radio-controlled targets from TSC. Unit scenario may require closure of other ranges or training areas. Closed to live-fire north of the 05 grid line, 1 Dec-31 Mar annually, due to presence of bald eagles along Muck Creek. Road guards required. Use of Hardin Hill restricts artillery fire in the Artillery Impact Area. This range offers good terrain for fire team through platoon live-fire maneuver. However, most use conflicts with TA 5 and ranges, OPs, and mortar points along the north boundary of the Artillery Impact Area. Coordination with Range Control prior to scheduling is required. Range 87 is outside Restricted Airspace R6703 and does not support indirect fire.

l. RANGE: Range 94, Squad Ambush/Defense/Offense.

LOCATION: South Impact Area, ET 287044.

AMMUNITION: 5.56m, 7.62mm, .45 cal, 9mm, 40mm TP, AT-4 sub-cal, 1/4-pound demolitions, pyrotechnics, claymore.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); OCs per unit commander; RTO; ammo guard.

TARGETS: Radio-controlled or mechanical pop-up targets. Target array per unit scenario.

ALTERNATE USES: By contract.

REMARKS: Use of tracer and pyrotechnics affected by fire hazard levels. Hostile-fire simulators and radio-controlled targets from TSC. Unit scenario may require closure of other ranges or training areas. Closed to live-fire 1 Dec-31 Mar annually due to bald eagles along Muck Creek. Road guards required. Coordination with Range Control prior to scheduling is required. Closes Mortar 14.

m. RANGE: Range 102 and 103. Squad Maneuver, North Fort Impact Area, by arrangement with Range Control. Use of tracer and pyrotechnics affected by fire hazard levels.

B-7. TANK RANGES.

a. RANGE: Range 74, Tank Sub-Cal/Bradley.

LOCATION: Artillery Impact Area, ET 325094.

AMMUNITION: 5.56mm, 7.62mm, .50 cal, 25mm TP, 120mm M831

HEAT TP.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicle or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); OCs/vehicle safeties per unit commander; RTO; evac vehicle driver; ammo guard.

TARGETS: Radio-controlled infantry and team targets placed by using unit. See appendix E.

ALTERNATE USES: Dismounted live-fire maneuver, TOW live fire, aerial gunnery, other by contract.

REMARKS: Moving target tracks are located approximately 1000 meters and 1500 meters downrange from the tower. Moving target carriers are available from Range Supply for unit emplacement and operation. Advanced coordination required. Closes Range 76. Use of movers may close portions of Story Road and Training Area 5.

b. RANGE: Range 75, Tank Live Fire Accuracy Screening Test (LFAST).

LOCATION: Artillery Impact Area, ET 324079.

AMMUNITION: 120mm M831 HEAT TP, 120mm M865 PIP TPCSDS-T.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicle or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); OCs/vehicle safeties per unit commander; RTO; evac vehicle driver; ammo guard.

TARGETS: Screening panels placed at the base of the TA 5 bluff, ET 311085 and ET 312086, by using unit. Panel requests per chapter 16 and appendix E.

ALTERNATE USES: None.

REMARKS: Advanced coordination required. Large hazard area footpring and roadguard requirements. Closes Range 74, Range 76, Mortar 3 through Mortar

10, OP 8, OP 9, portions of Story Road, 2d Division Range Road, Training Area 4, and all of Training Area 5 including Range 62 and NBC 1.

B-8. ANTI-TANK RANGES.

- a. RANGE: Range 14, AT-4 Sub-Caliber.

LOCATION: Central Impact Area, ET 336109.

AMMUNITION: AT-4 sub-cal.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); RTO; firing line Safety NCOs (1 per firer recommended); ammo guard.

TARGETS: Target emplacements for AT-4 sub-cal (9mm insert). Target lifters for AT-4 sub-cal obtained from TSC and emplaced by unit.

ALTERNATE USES: None.

REMARKS: Use of tracer and pyrotechnics affected by fire hazard levels.

- a. RANGE: Range 59, AT-4/90mm/LAW HEAT and Sub-Caliber.

LOCATION: Artillery Impact Area, ET 274090.

AMMUNITION: Extreme left side of range, AT-4 sub-cal only; center of range AT-4 HEAT/sub-cal; 90mm HEAT/sub-cal; 84mm Carl Gustav HEAT; M202 FLASH. Extreme right side of range, LAW sub-caliber ONLY.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); RTO; firing line Safety NCOs (1 per firer recommended); ammo guard.

TARGETS: Extreme left of range, target emplacements for AT-4 sub-cal (9mm insert), 90mm sub-cal (7.62 insert); center of range, hard targets for HEAT; no unit movement forward of firing line. Right side of range, cable-driven moving target for LAW sub-caliber ammo. Target lifters for AT-4 sub-cal obtained from TSC and emplaced by unit.

ALTERNATE USES: Flame weapons by coordination with Range Operations.

REMARKS: Closes Range 60. NOTE: The far left and far right sides of the range are not for HEAT ammunition, under any circumstances. See range SOP.

- b. RANGE: Range 115, 82-Point 84mm/90mm AT-4 Sub-caliber.

LOCATION: North Fort Impact Area, ET 291198.

AMMUNITION: 7.62mm.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); firing line Safety NCOs (recommend 1 per 4 firing points); ammo guard.

TARGETS: Cable-driven moving target. Target facings receipted from Range Supply and placed by unit OIC. HMMWV required to operate cable mover.

ALTERNATE USES: None.

REMARKS: Use per FM 23-11. Use of tracer and pyrotechnics affected by fire hazard levels.

c. RANGE: Mortar 7, Dragon Live-Fire.

LOCATION: Artillery Impact Area, ET 304081.

AMMUNITION: Dragon HEAT and inert.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio, vehicular or mast antenna required. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); RTO; Safety and Control NCOs per unit commander; ammo guard.

TARGETS: Hulks in the Artillery Impact Area.

ALTERNATE USES: Mortars.

REMARKS: Access to Artillery Impact Area for unit preparation of thermal target requires 30-day advance notice to Range Operations for EOD and other live-fire coordination. Missile wire must be reeled in.

d. RANGE: TOW Live Fire. TOW firing points are arranged on a case-by-case basis with Range Operations. Contract required.

B-9. GRENADE RANGES.

a. RANGE: Range 24, 4-point Hand Grenade Live-fire Range north of East Gate Road, with attached Practice Grenade Qualification Course south of East Gate Road.

LOCATION: Central Impact Area, ET 356097/TA6, ET 355095.

AMMUNITION: Live-Fire Range, HE fragmentation grenades only. Qualification Course, training grenades only.

FIRING HOURS: Daylight to dusk daily.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); Safety NCO for each active HE point; ammo guard; HE range gate guard.

TARGETS: On the live-fire range, tires are placed as aiming points by Range Control ONLY. No unit movement downrange. On the qualification course, targets are provided per TC 25-8 and the range SOP.

ALTERNATE USES: None.

REMARKS: Guard must be placed at gate to HE range when in use.

b. RANGE: Range 79, MK 19 40mm HE/TP Zero and Qualification, M203 HE familiarization.

LOCATION: Artillery Impact Area, ET 327066.

AMMUNITION: 40mm HE/TP.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); RTO; firing line Safety NCOs (recommend 1 per point); ammo guard.

TARGETS: Hard targets at various distances per MK19 Qualification Table.

ALTERNATE USES: Dragon inert; ROTC Advanced Camp machinegun committee range. Other uses by contract.

REMARKS: Extremely hazardous dud area; no movement by unit personnel downrange. Target service by coordination with Range Operations. Range 79 is allocated to ROTC Advanced Camp for machinegun training each summer; MK 19 firing days for other units during Advanced Camp is by coordination with ROTC Hqs. Is not affected by M203 qualification firing on Range 81. Closes Mortar 13.

c. RANGE: Range 81, 4-point M203/M79 TP Qualification.

LOCATION: Artillery Impact Area, ET 334063.

AMMUNITION: 40mm TP ONLY.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna.

PERSONNEL: OIC and RSO (Grade per chapter 1); firing line Safety NCOs (recommend 1 per 2 firing points); ammo guard.

TARGETS: M203 qualification course per FM 25-7.

ALTERNATE USES: None.

REMARKS: Does not affect operations on Range 79. Closes Mortar 13.

B-10. DEMOLITION AND MINES.

a. RANGE: Range 62, Basic Demolitions.

LOCATION: TA 5, ET 297104.

AMMUNITION: C-4 and TNT, 1/4-pound and 1-pound blocks; claymores. Larger charges and 15-pound shaped charges by contract.

FIRING HOURS: See chapter 3.

MEDICAL: Per chapter 1.

COMMO: Telephone primary; FM/VHF radio backup and emergency.

TARGETS: Staked cardboard E-silhouettes may be receipted from Range Supply/Support and placed by OIC for claymores.

ALTERNATE USES: None.

REMARKS: Closes parts of TA 5. Road guards required.

b. RANGE: Range 58, Advanced Demolitions.

LOCATION: Artillery Impact Area, ET267083.

AMMUNITION: Demolitions charges and munitions for advanced demolitions training and operations.

FIRING HOURS: See chapter 3.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna, placed at Range 58 tower. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); RTO; Safety NCO for each active point; ammo guard. Road guards required.

REMARKS: The fenced area immediately downrange from the tower, and to the left of the demolitions sites, is a 40mm HE dud area. Absolutely no entry is permitted. The steel-cutting bunker is for use per the range SOP and unit LFX contract. Charge limits inside the bunker are not negotiable and must be observed. Units using Range 58 for demolitions must repair blast damage, craters, and other soil disturbances, and must remove all demolitions target remnants, such as barbed wire and timber, concrete, and steel fragments. Units without organic capability to repair damage and remove debris must provide equipment and haul by tasking through I Corps G3 Central Tasking Office. Closes Mortar 1, Mortar 2, Range 52, and Range 53.

c. RANGE: Mortar 3, Claymore Live-Fire.

LOCATION: Artillery Impact Area, ET 286085.

AMMUNITION: Claymore.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio, vehicular or mast antenna required. Constant monitoring of Range Operations required.

PERSONNEL: OIC and RSO (Grade per chapter 1); RTO; Safety and Control NCOs per unit commander; ammo guard.

TARGETS: Personnel silhouettes from Range Supply. Target requests per chapter 16 and appendix E.

ALTERNATE USES: Mortars.

NOTE: Range 99, shown on the Edition 4-DMA Fort Lewis 1:50,000 MIM in TA 22, is no longer scheduled for routine demolitions training.

B-11. FLAME WEAPONS. See Range 59, above.

B-12. OTHER ACTIVE RANGES.

a. RANGE: Range 7, Multi-Purpose Small Arms Range.

LOCATION: Central Impact Area, ET 328126.

AMMUNITION: 5.56mm, 7.62mm, 9mm, 40mm TP, AT sub-cal.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (grade per chapter 1); firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: By contract.

ALTERNATE USES: By contract.

REMARKS: PA from unit. Mag drop per chapter 1. Use per coordination with S3 2d Bn 75th Ranger Regt.

b. RANGE: Range 13 Multi-Purpose Small Arms. 1st MP Bde law enforcement live fire range.

c. RANGE: Range 15, DPCA Sportsmen's Range.

LOCATION: Central Impact Area, ET 339108.

REMARKS: Range operated by DPCA Northwest Adventure Center for privately owned weapons. For firing hours, use information, weapons limits call NWAC. MWR range OIC required to be present during use.

d. RANGE: Range 19, Multi-Purpose Marksmanship Range.

LOCATION: Central Impact Area, ET 345106.

AMMUNITION: 5.56mm, 7.62mm, foreign weapons.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 5 firing points); ammo guard.

TARGETS: Per contract and unit installation.

ALTERNATE USES: By contract with Range Operations.

REMARKS: PA from unit. Downrange activity on this range closes Range 18. Closes Range 20. Mag drop per chapter 1.

e. RANGE: Range 25 CQB Marksmanship/Range 25 CQB Maze Shootouse. 2d Bn 75th Rgr CQB Course.

f. RANGE: Urban Assault Course, Ranges 26, 27, 28, 29.

LOCATION: Central Impact Area, ET 362115, ET 361117, ET 363122, ET 364125. Note: Range 27 through 31 locations on the Edition 4-DMA map are incorrect.

AMMUNITION: 5.56mm, 7.62mm, breaching charges.

FIRING HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs; ammo guard.

TARGETS: Per Urban Assault Course requirements.

ALTERNATE USES: None.

REMARKS: Range 26 contains the Individual and Team Task/Technique Trainer and the Underground Trainer. Range 27 contains the Shootouse. Range 28 contains the Squad and Platoon Task/Technique Trainer and the Grenadier Gunnery structure. Range 29 is used as the 10 and 25 meter reactive fire flat range. PA from unit. Safety personnel must be equipped with flashlights. Use of tracer and pyrotechnics affected by fire hazard levels. Mag drop per chapter 1.

- g. RANGE: Range 31, 16-Point Multi-Purpose Small Arms Range.
LOCATION: Central Impact Area, ET 366131.
AMMUNITION: 5.56mm.
FIRING HOURS: 0001-2400.
MEDICAL: Per chapter 1.
COMMO: FM/VHF radio.
PERSONNEL: OIC and RSO (Grade per chapter 1); evac vehicle driver; firing line Safety NCOs (recommend 1 per 4 firing points); ammo guard.
TARGETS: Per unit requirement.
ALTERNATE USES: By contract.
REMARKS: PA from unit. Mag drop per chapter 1.
- h. RANGE: Range 43-44-45. 1st Special Forces Group SOF live fire range.
- i. RANGE: Range 72, 15-Lane Multi-Purpose Small Arms.
LOCATION: Artillery Impact Area, ET 318089.
AMMUNITION: 5.56mm, 7.62mm.
FIRING HOURS: 0001-2400.
MEDICAL: Per chapter 1.
COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required.
PERSONNEL: OIC and RSO (Grade per chapter 1); RTO; ammo guard.
TARGETS: Buried-cable M31A1 targets per FM 23-9 night and mask fire.
ALTERNATE USES: By contract.
REMARKS: Range limits are narrow; firing must be closely controlled by OIC.
- j. RANGE: Range 92, EOD Site. Controlled by 707th Ordnance Company (EOD).
- k. RANGE: Range 101, Infiltration Course.
LOCATION: North Fort Impact Area, ET 276194.
AMMUNITION: 7.62 and C-4 (1/4 lb only).
FIRING HOURS: 0001-2400.
MEDICAL: Per chapter 1.
COMMO: FM/VHF radio.
PERSONNEL: OIC and RSO (Grade per chapter 1); other personnel as required by Range SOP.
REMARKS: Overhead fire course; requires specially-cleared ammunition.
- l. RANGE: Mortar 7 Helicopter Door Gunnery. By arrangement with Range Operations.

B-13. MORTAR POINTS.

NOTE: Safety data is issued to OIC by Range Operations with Mortar Point SOP. FM/VHF radio with vehicular or mast antenna required. Constant monitoring of

Range Operations required. The overprinted Mortar Points on the Fort Lewis Military Installation Map cannot be considered accurate for fire control purposes.

POINT	AMMO	GRID	REMARKS
1	81/107/120mm	ET 256091	Closes FP 2508, R53, R58.
2	81/107/120mm	ET 260093	Closes FP 2509, R58.
3	60/81/107/120mm	ET 286085	Direct lay, direct alignment, 60mm hand-held firing, Claymore.
4	60/81/107/120mm	ET 283080	Direct lay, direct alignment, 60mm hand-held firing.
5	60/81/107/120mm	ET 296079	Direct lay, direct alignment, 60mm hand-held firing.
6	60/81/107/120mm	ET 301079	Direct lay, direct alignment, 60mm hand-held firing.
7	60/81/107/120mm	ET 304081	Direct lay, direct alignment, 60m hand-held firing, Dragon, helicopter aerial gunnery.
8	81/107/120mm	ET 310083	None.
9	81/107/120mm	ET 334082	Closes R76; FP 3308A, M10.
10	81/107/120mm	ET 329077	Closes R76, FP 3308A, M9.
11	81/107/120mm	ET 329075	Closes R76.
12	81/107/120mm	ET 328072	
13	Mortar Point 13 is not currently scheduled.		
14	81/107/120mm	ET 287041	Closes R94.

NOTE: R6703 maximum ordinate for Mortar Points 1 through 5 and 14 is 14,000 feet. R6703 maximum ordinate for Mortar Points 6 through 13 is 5,000 feet.

B-14. MORTAR SUB-CALIBER RANGES. Mortar sub-caliber may be fired from M1 through M12 by arrangement with Range Operations. Recoverable rounds are usually fired from Range 72. Other sites by coordination with Range Operations. 1/10 scale vehicles and buildings from TSC.

B-15. FIELD ARTILLERY FIRING POINTS.

NOTE: The primary method of scheduling, controlling, and conducting Field Artillery live fire training at Fort Lewis is the PADS system described in chapter 8. PADS SOP issued to firing OICs by Range Operations. The method of control described in chapter 11 of AR 385-63, using fixed firing points with predetermined safety data, is maintained for commanders who prefer that system. Safety data and full grid information maintained at Range Control. Data Sheets and SOPs are issued to firing OICs by Range Operations. Primary and alternate FM radios and constant monitoring of Range Operations by firing OIC required. The overprinted Field Artillery Firing points on the Fort Lewis Military Installation Map cannot be considered as accurate for fire control purposes.

NOTE: R6703 maximum ordinate for FPs 2410 through 3011 is 14,000 feet. R6703 maximum ordinate for FPs 3210 through 3608 is 5,000 feet. For PADS and Paladin planning purposes, the dividing line runs northeast from ET 283021 through ET 308119.

POINT	GRID	REMARKS
2410	ET 248108	
2412	ET 241127	
2412A	ET 242121	
2413	ET 213136	
2507	ET 258078	Closes R52.
2508	ET 256089	Closes R53, M1.
2509	ET 259093	Closes M2. Note 1.
2511	ET 251111	
2511A	ET 253116	
2511B	ET 256119	Closes FP2512.
2512	ET 256122	Closes FP2511.
2610	ET 265109	
2610A	ET 267104	
2611	ET 265115	
2612	ET 267126	
2710	ET 274104	
2712	ET 271129	
2713	ET 277139	
2713A	ET 279135	
2811	ET 281115	
2811A	ET 289116	
2910	ET 293108	
2912	ET 292126	
2912A	ET 297124	
3011	ET 300111	
3210	ET 328100	Closes R74.
3308	ET 331087	Closes R76. Note 1.
3308A	ET 333081	Closes M9, M10, R76. Note 1.
3310	ET 333103	
3408	ET 343087	
3409	ET 341099	
3409A	ET 348097	
3409B	ET 349095	
3507	ET 356075	
3508	ET 353083	
3508A	ET 359080	
3509	ET 351092	
3608	ET 361085	

Note 1: Firing point used for ammunition not cleared for overhead fire.

APPENDIX C

TRAINING FACILITIES

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C-2. FACILITY DESCRIPTIONS.

a. FACILITY: Solo Point Amphibious Site A-1. Used for over-the-shore and diving operations, engineer bridging, small boat operations, and as a ground base for Puget Sound DZ.

LOCATION: TA 1, ET 279206.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna, or relay site emplaced near Sewage Treatment Plant at top of bluff. Constant monitoring of Range Operations required during Puget Sound DZ operations.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander). For water safety requirements see FL Reg 350-2.

REMARKS: The railroad line is not Army property and may not be blocked under any circumstances. Frequent passage of high-speed trains is a severe hazard to personnel and vehicles. Troops may not be moved up or down the tracks under any circumstances. Trainers may encounter fishermen or recreational boaters. Priority is always to scheduled training. Risk of immersion hypothermia. The sewage treatment plant is off limits. There is an open channel leading down from the vicinity of the sewage treatment plant to the bottom of the bluff south of Solo Point that is dangerous and off limits. Per National Marine Fisheries Service consultation, February 1999, the following measures apply to use of Solo Point:

(1) Off-loading and deployment of floating bridge bays between 1 March and 30 June of each year is limited to the existing boat ramp. Deployment from the native beach, or alterations to the native beach material are not allowed.

(2) Off-loading and deployment of all support vessels between 1 March and 30 June of each year is limited to the existing boat ramp.

(3) No more than three hours of near shore activity can occur on each of the eight days of launch activity training scheduled between 1 March and 30 June of each year.

(4) No vehicles may drive on the native beach substrate between 1 March and 30 June of each year.

b. FACILITY: Sequelitchew Lake Amphibious/Bridge Site A-2 .

LOCATION: TA 2, ET 300175.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander). For water safety requirements see FL Reg 350-2.

REMARKS: Risk of immersion hypothermia.

c. FACILITY: Lewis Lake Amphibious/Bridge Site A-3. Used for vehicle swimming and engineer float bridge and rafting operations.

LOCATION: TA 16, ET 328039.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander). For water safety requirements see FL Reg 350-2.

REMARKS: Risk of immersion hypothermia.

d. FACILITY: Nisqually River Bridge Site B-2, Nisqually River. Used for engineer float bridge and rafting operations, FTX.

LOCATION: TA 18, ET 281039.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander). For water safety requirements see FL Reg 350-2.

REMARKS: Water levels are subject to fluctuation. Risk of immersion hypothermia. Fishermen and recreational boaters may be encountered; training has priority.

e. FACILITY: Confidence Course, CC-2. Multi-station physical training and confidence-building site.

LOCATION: North Fort, ET 305187.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander).

REMARKS: OIC recon and coordination with Range Control required.

f. FACILITY: Obstacle Course, CO-2. Multi-station circular physical training obstacle course.

LOCATION: North Fort, ET 305186.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander).

REMARKS: OIC recon and coordination with Range Control required.

g. FACILITY: Bayonet Training Site, BT-2. Circular multi-apparatus Assault Course with adjacent multi-station Training Court.

LOCATION: North Fort, ET 295180.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander).

REMARKS: OIC recon and coordination with Range Control required.

h. FACILITY: Regenbunrg MOUT Site. Used to develop skills in urban combat. Site divisible by RR track into multi-unit packets. Wood-frame buildings, no grapnel or rappelling, no helicopter assault on roofs.

LOCATION: TA 16, ET 312034.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Relay station at top of bluff may be required.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander).

REMARKS: Use per Range Control SOP.

i. FACILITY: NBC Proficiency Site 1, NBC 1. Mask confidence exercise building with 2 rooms, 1 for CS capsules or powder only, 1 for camphor. Burning-type grenades are prohibited.

LOCATION: TA 5, ET 304110.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade and requirements per chapter 1).

Assistant instructors, chamber operators, and other personnel per doctrine or unit commander.

REMARKS: None.

j. FACILITY: Nisqually River Recondo, RCD 2. Cable and rope bridging, moving water crossing techniques.

LOCATION: TA 16, ET 313024.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander). For water safety requirements see FL Reg 350-2.

REMARKS: Risk of immersion hypothermia. Lifejackets, safety boats, ropes, and all other equipment provided by unit.

k. FACILITY: Sequalitchew Lake Recondo, RCD 3. Rappel Tower.

LOCATION: TA 2, ET 292179.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander).

REMARKS: This is an air assault rappel tower, with no mid-level rappel deck. See the Range Control Recondo 3 SOP for details.

l. FACILITY: Tank/Bradley Crew Proficiency Course (TCPC/BCPC).

LOCATION: TA 8, center ET 397145.

HOURS: 0001-2400.

MEDICAL: Determined by training event.

COMMO: FM/VHF radio.

PERSONNEL: Determined by training event.

REMARKS: Used by heavy brigade units for TCPC/BCPC. Two lanes. Course comprises the area from ET 397160 to ET 397135 and is approximately 200 meter wide. Closes the portion of TA 8 indicated as white on the Fort Lewis 1:50,000 MIM, and LS-8. Priority is to Active and Reserve Component heavy forces.

m. FACILITY: Airlift Load-Out Site, C5A.

LOCATION: Central Impact Area, ET 327115.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander).

REMARKS: Mockups for C130, C141, C17. Large metal "C5A" mockup parallel to East Gate Road does not replicate any actual aircraft ramps. Unit must provide tiedowns and loadmasters.

n. FACILITY: Target Detection Range, TD-5.

LOCATION: Central Impact Area, ET 326116.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio.

PERSONNEL: OIC and RSO (Grade and qualification per training event doctrine or unit commander).

REMARKS: Use guided by FM 23-9. OIC recon and coordination with Range Control required. Support materials must be receipted from Range Supply.

o. FACILITY: Abrams Drop Zone. For capabilities, see chapter 11. Located at and closes Pt Salines DZ.

LOCATION: TA 6, center ET334097.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Requires checkfire of indirect firing points. Closes Dakto DZ for simultaneous fixed wing-helicopter drops. Helicopter-helicopter drops on Abrams and Dakto are permitted provided both DZSOs have coordinated P-hours and air routes.

p. FACILITY: American Lake Drop Zone. Water drops. For capabilities, see chapter 11. Not identified on Fort Lewis 1:50,000 MIM.

LOCATION: American Lake. Drop zone survey held at S3 2d Bn 75th Ranger Regt.

HOURS: 0001-2400.

MEDICAL: Per chapter 1. For water safety requirements see FL Reg 350-2.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Aircraft contact GAAF Operations.

q. FACILITY: Anzio Drop Zone. For capabilities, see chapter 11.

LOCATION: TA 13, ET 395054.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Closed by fixed-wing operations on Rogers DZ. Simultaneous helicopter-helicopter drops on Anzio and Rogers permitted provided both DZSOs have coordinated P-hours and air routes.

r. FACILITY: Dakto Drop Zone. For capabilities, see chapter 11.

LOCATION: TA 12, ET 356079.

HOURS: 0001-2400. Night drops require activation of R6703D.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Closes Abrams and Point Salines DZs for simultaneous helicopter-helicopter drops on Dakto and Abrams or Point Salines are permitted provided both DZSOs have coordinated P-hours and air routes.

s. FACILITY: Darby Drop Zone. For capabilities, see chapter 11.

LOCATION: TA 21, ES 212952.

HOURS: 0001-2400. Night drops require activation of R6703C.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required. Radio relay at site of Deschutes Fire Tower (ES 175954) may be required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Closed by prior scheduling of same. Closes Merrill and El Guettar DZs for simultaneous fixed-wing or fixed-wing helicopters drops. Helicopter-

helicopter drops are permitted provided both DZSOs have coordinated P-hours and air routes.

t. FACILITY: El Guettar Drop Zone. For capabilities, see chapter 11.

LOCATION: TA 22, ES 202969.

HOURS: 0001-2400. Night drops require activation of R6703C.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required. Radio relay at site of Deschutes Fire Tower (ES 175954) may be required..

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Closed by prior scheduling of same. Closes Darby DZ for simultaneous fixed-wing or fixed-wing helicopters drops. Simultaneous helicopter-helicopter drops are permitted provided both DZSOs have coordinated P-hours and air routes.

u. FACILITY: Marion Drop Zone. For capabilities, see chapter 11.

LOCATION: TA 18, ET 298038.

HOURS: 0001-2400. Night drops require activation of R6703B.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Closed by fixed-wing operations on Point de Hoc DZ. Simultaneous helicopter-helicopter drops are permitted on Marion and Point de Hoc provided DZSOs have coordinated P-hours and air routes.

v. FACILITY: Merrill Drop Zone. For capabilities, see chapter 11.

LOCATION: TA 21, ES 228960.

HOURS: 0001-2400. Night drops require activation of R6703C.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio with vehicular or mast antenna. Constant monitoring of Range Operations required. Radio relay at site of Deschutes Fire Tower (ES 175954) may be required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Closes Darby DZ for simultaneous fixed-wing or fixed-wing helicopters drops. Simultaneous helicopter-helicopter drops are permitted provided both DZSOs have coordinated P-hours and air routes.

w. FACILITY: Mytkina Drop Zone. For capabilities, see chapter 11.

LOCATION: TA 19, ET 247033.

HOURS: 0001-2400. Night drops require activation of R6703C.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: None.

x. FACILITY: Pacemaker Assault Airstrip/Extraction/Drop Zone. C-130 capable unpaved assault airstrip, with associated LAPES and drop zones. For capabilities, see chapter 11.

LOCATION: TA 18, ET 421078.

HOURS: 0001-2400. Night drops require illumination of jumpers per FAR Part 105.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: None.

y. FACILITY: Powell Drop Zone. For capabilities, see chapter 11. Not identified on Ft Lewis 1:50,000 MIM.

LOCATION: Gray Army Airfield.

HOURS: 0001-2400.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required.

PERSONNEL: DZSO and ADZSO required for personnel drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Scheduling is with GAAF Operations. Associated power grid shutdowns close Ranges 1 through 20.

z. FACILITY: Point de Hoc Drop Zone. For capabilities, see chapter 11.

LOCATION: TA 18, center ET 2910332.

HOURS: 0001-2400. Night drops require activation of R6703B.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Simultaneous helicopter-helicopter drops on Point de Hoc and Marion DZs permitted provided DZSOs have coordinated P-hours and air routes.

aa. FACILITY: Point Salines Drop Zone (formerly Abrams West DZ). For capabilities, see chapter 11. Collocated with Abrams DZ.

LOCATION: TA 6, center ET 335095.

HOURS: 0001-2400. Night drops require activation of R6703D.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Requires checkfire of indirect firing points. Closes Dakto DZ for simultaneous fixed wing-helicopter drops. Helicopter-helicopter drops on Pt Salines and Dakto are permitted provided both DZSOs have coordinated P-hours and air routes.

bb. FACILITY: Puget Sound Drop Zone (Water drops only). For capabilities, see chapter 11. Not identified on Ft Lewis 1:50,000 MIM.

LOCATION: Puget Sound, off Solo Point.

HOURS: 0001-2400. Night drops require illumination of jumpers per FAR Part 105.

MEDICAL: Per chapter 1. For water safety requirements see FL Reg 350-2.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required. A relay station may be required at the top of the bluff in TA 1, ET 278205.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Concurrent scheduling of Amphibious Site A-1 (Solo Point) required. Range Control will arrange for Local Notice to Mariners through USCG Vessel Traffic Service and Marine Safety Office, Seattle. DZ is located in waters not owned or controlled by the Army. **Use is on a non-interference basis; civilian vessels and boats cannot be forced to move regardless of effect on P-hours.** The DZSO must cancel if the area cannot be cleared 15 minutes prior to scheduled P-hour, or if non-involved craft move into the drop/recovery area during operations.

cc. FACILITY: Rogers Drop Zone. For capabilities, see chapter 11.

LOCATION: TA 14, ET 413072.

HOURS: 0001-2400. Night drops require illumination of jumpers per FAR Part 105.

MEDICAL: Per chapter 1.

COMMO: FM/VHF radio. Constant monitoring of Range Operations required.

PERSONNEL: DZSO and ADZSO required for personnel drops. OIC required for other drops. Grade and qualification per training event doctrine or unit commander.

REMARKS: Closes Anzio DZ for simultaneous fixed-wing and fixed-wing helicopter drops on Rogers and Anzio are permitted provided both DZSOs have coordinated P-hours and air routes.

dd. FACILITY: Bunker Observation Post 2, OP-2.

LOCATION: TA 6, ET 299072.

HOURS: 0001-2400.
MEDICAL: Determined by training event.
COMMO: FM/VHF radio.
PERSONNEL: Determined by training event.
REMARKS: None.

ee. FACILITY: Bunker Observation Post 3, OP-3.
LOCATION: TA 6, ET 330076.
HOURS: 0001-2400.
MEDICAL: Determined by training event.
COMMO: FM/VHF radio.
PERSONNEL: Determined by training event.
REMARKS: None.

ff. FACILITY: Bunker Observation Point 8, OP-8.
LOCATION: TA 5, ET 303081.
HOURS: 0001-2400.
MEDICAL: Determined by training event.
COMMO: FM/VHF radio.
PERSONNEL: Determined by training event.
REMARKS: None.

gg. FACILITY: Bunker Observation Post 9, OP-9.
LOCATION: TA 5, ET 292082.
HOURS: 0001-2400.
MEDICAL: Determined by training event.
COMMO: FM/VHF radio.
PERSONNEL: Determined by training event.
REMARKS: None.

hh. FACILITY: Bunker Observation Post 10, OP-10.
LOCATION: TA 4, ET 275092.
HOURS: 0001-2400.
MEDICAL: Determined by training event.
COMMO: FM/VHF radio.
PERSONNEL: Determined by training event.
REMARKS: Limited view due to trees.

APPENDIX D
TRAINING AREAS

D-1. TRAINING AREAS INDEX.

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D-2. TRAINING AREA DESCRIPTIONS.

- a. AREA: TA 1, Center ET 270197, 233 acres.

TRAINING FACILITIES INCLUDED: Solo Point Amphibious Training Site (A-1).

PRIMARY USES: Tactical maneuver training; amphibious training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, dense undergrowth with some small clearings.

TERRAIN: Level ground with steep bluffs and ravines leading down to Puget Sound on the northwest boundary.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June –

31 October annually. **The sewage treatment plant is off limits. There is an open channel leading from the vicinity of the sewage treatment plant to the bottom of the bluff that is dangerous and off limits.** Portions of TA 1 are owned by a gravel company and are being mined. Gravel company excavations are fenced and off limits.

b. AREA: TA 2, Center ET 297175, 843 acres.

TRAINING FACILITIES INCLUDED: Recondo Site 3 (RCD3) rappel tower; Leader's Reaction Course (LRC); Sequalitchew Lake Amphibious/Bridge Training Site; Bayonet Assault Course 2 (BT2), Obstacle Course 2 (CO2) and Confidence Course 2 (CC2).

PRIMARY USES: Tactical maneuver training; rappelling; LRC; bayonet training; physical conditioning; amphibious training.

TRAINING HOURS: 0001-2400.

VEGETATION: Alder, some douglas fir, some undergrowth. Scattered small clearings.

TERRAIN: Level ground with extensive swamps and bogs.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually.

c. AREA: TA 3N, Center ET 239125, 1168 acres.

TRAINING FACILITIES INCLUDED: Artillery firing points 2412, 2412A, 2413; EIB/EFMB sites.

PRIMARY USES: Tactical maneuver training; EIB; EFMB; artillery live-fire.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, dense undergrowth with some clearings.

TERRAIN: Generally level terrain with small hills and hollows. Steep bluffs on the west side. Transected by active railroad.

LIMITATIONS: All included training facilities and the fish hatchery are off limits. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. The portion of TA 3N west of the rail line and Old Pacific Highway, containing Trotter Woods, is accessible only by driving around from I-5 via the Mounts Road exit, or from Nisqually Bridge via State Route 510 and the Old Pacific Highway. Access directly across the rail line is extremely hazardous. The rail line may not be blocked, and neither the rail line nor its bridges may be used for military training of any kind. No emplacements or barriers within 300 meters of firing point monuments except for artillery exercises. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. The bluffs along the Nisqually River are unstable and may not be used for climbing or rappelling.

d. AREA: TA 3S, Center ET 255070, 1038 acres.

TRAINING FACILITIES INCLUDED: None. The Nisqually Indian Tribe Fish Hatchery is located at the northern end of this TA.

PRIMARY USES: Tactical maneuver training.

TRAINING HOURS: 0001-2400.

VEGETATION: Alder, some Douglas fir, dense undergrowth.

TERRAIN: Transected by steep bluffs, with most of the TA on the floodplain of the Nisqually River. Below the bluffs, level ground with extensive swamps and bogs. Above the bluffs, the Artillery Impact Area hazard zone, which is off limits to TA 3S users.

LIMITATIONS: The fish hatchery is off limits. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. No training within 25 meters of Clear Creek, Clear Creek Pond and Cabin Creek from 15 August - 01 February annually, to avoid impact on spawning salmon. No approach to or interference with eagles or eagle nesting trees. No entry into Artillery Impact Area without clearance from Range Operations. The bluffs along the Nisqually River are unstable and may not be used for climbing or rappelling.

e. AREA: TA 4, Center ET 270115, 5855 acres.

TRAINING FACILITIES INCLUDED: Bunker OPs 10 and 11; Artillery firing points 2410, 2510, 2511, 2511A, 2511B, 2610, 2610A, 2611, 2612, 2710, 2712, 2713, 2811, 2813, 2911.

PRIMARY USES: Tactical maneuver training; artillery live-fire; tactical excavations; FIST training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Many small hills, hollows and swamps. Some ponds. Limited cross-country mobility and few landmarks. Bluffs along south side.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. No emplacements or barriers within 300 meters of firing point monuments except for artillery exercises. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. Goodman Fire Tower at ET 271135 is off-limits.

f. AREA: TA 5, Center ET 307098, 2426 acres.

TRAINING FACILITIES INCLUDED: NBC Chamber 1; Demolitions Range 62; Bunker OPs 7, 8, 9; Artillery firing points 2910, 3010.

PRIMARY USES: Tactical maneuver training; NBC mask confidence and proficiency training; demolitions training; FIST training; laser training (OP-8 and 9); artillery live-fire.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Many small hills, hollows and swamps. Some ponds. Limited cross-country mobility and few landmarks. Bluffs along south side.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range

Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. No emplacements or barriers within 300 meters of firing point monuments except for artillery exercises. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. A road and fence are under construction from approximately ET 322095 to ET 289103 that will divide TA 5 into a maneuver portion, to the north, and a live fire buffer zone, to the south. When the road and fence are complete and gates and warning signs are emplaced, access to the southern portion is prohibited on live fire days. See the Daily Range Schedule, distributed by Email and also available on the Fort Lewis Internet Home Page, for announcement of live fire days in south TA 5.

g. AREA: TA 6, Center ET 342080, 2363 acres.

TRAINING FACILITIES INCLUDED: Abrams DZ; Point Salines DZ (formerly Abrams West DZ); Artillery Firing Points 3209, 3310, 3408, 3409, 3409A, 3508, 3508A, 2509; dry-fire portion of Range 24.

PRIMARY USES: Tactical maneuver training; artillery live-fire; airborne operations; TOW firing; anti-armor tracking; tank and Bradley gunnery.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Level prairie and open woodland with ground rising gently to Kicker Hill in south center and some bogs and swamps.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. No maneuver west of 33rd Div Rd (asphalt, ET 328104 - ET 335070). Buildings and facilities along East Gate Road (ET 338106) are off limits. Trainers should expect restrictions on maneuver and countermobility operations due to use of Abrams and Point Salines DZs for airborne operations.

h. AREA: TA 7N, Center ET 363180, 471 acres. Assigned to DOL Maintenance Division as vehicle test area, 0730 - 1630 weekdays. Available for training other hours and weekdays.

i. AREA: TA 7S, Center ET 370164, 894 acres.

TRAINING FACILITIES INCLUDED: None.

PRIMARY USES: Tactical maneuver training; staging for live fire exercises on Ranges 36, 39, 40, 41.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Level ground with some small hollows and hills. Some swamps and bogs. Active rail line limits access from the east and north.

LIMITATIONS: All included training facilities and the Lincoln Street gravel pit are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. The rail line may not be used for training.

Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map.

j. AREA: TA 8, Center ET 383142, 2102 acres.

TRAINING FACILITIES INCLUDED: Tank/Bradley Crew Proficiency Course (TCPC/BCPC), see App C; Landing Strip 8.

PRIMARY USES: Tactical maneuver training; armor/mech infantry crew qualification; aviation training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Level ground with some small hollows and hills. Some swamps and bogs. Active rail line limits access from the west.

LIMITATIONS: An underground communications cable runs from ET407138 to ET399145 to ET3991611. All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. The rail line may not be used for training. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map.

k. AREA: TA 9, Center ET 417146, 2431 acres.

TRAINING FACILITIES INCLUDED: None.

PRIMARY USES: Tactical maneuver training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Level ground with some small hollows and hills. Extensive swamp runs north-south on the west side. Transected by State Route 507 and an active rail line. Contains portions of 8th Avenue S, 8th Avenue E and 208th Avenue (see chapter 14 above).

LIMITATIONS: Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. Highway 507 and the rail line may not be blocked. Requests for short-term blocks on 8th Avenue S, 8th Avenue E and 208th Avenue must contain detailed justification and must be submitted to Range Operations not less than 90 working days prior to the event. The gas pipeline right of way along the north and west edge of the Training Area is not to be used as a road. An underground petroleum products pipeline runs parallel to the power transmission lines in the east portion of the Training Area. An underground communications cable runs from ET435125 to ET407138.

l. AREA: TA 10, Center ET 385111, 3295 acres.

TRAINING FACILITIES INCLUDED: None.

PRIMARY USES: Tactical maneuver training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Level ground with some small hollows, hills and bogs. Johnson Marsh and connected large swamp run along southeast side. Active rail lines limit access from west and southeast.

LIMITATIONS: Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Highway 507 and the rail line may not be blocked. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map.

m. AREA: TA 11, Center ET 428110, 3534 acres.

TRAINING FACILITIES INCLUDED: None.

PRIMARY USES: Tactical maneuver training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Level ground. Transected by 8th Avenue S and 8th Avenue E (see chapter 14 above). Active rail line and State Route 507 limit access from the west and north.

LIMITATIONS: Barriers and excavations must be coordinated with Range Operations. Highway 507 and the rail line may not be blocked. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. Requests for short-term blocks on 8th Avenue S and 8th Avenue E must contain detailed justification and must be submitted to Range Operations not less than 90 days prior to the event. The gas pipeline right of way parallel to Highway 507 along the west edge of the Training Area, and the gas pipeline across the southeast corner of the Training Area, are not to be used as roads.

n. AREA: TA 12, Center ET 364091, 1808 acres.

TRAINING FACILITIES INCLUDED: Dakto DZ; Artillery Firing Points 3507, 3607 and 3608.

PRIMARY USES: Tactical maneuver training; artillery live-fire; airborne operations.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, under -growth with some clear-cuts and natural clearings.

TERRAIN: Level ground with Chambers Lake and some small ponds and interconnected swamps along the Muck Creek drainage. Active rail lines on the west and east sides. DPCA Recreation Area along the south and west shores of Chambers Lake.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Highway 507 and the rail line may not be blocked. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be

restricted during the fire hazard season, 1 June - 31 October annually. No emplacements or barriers within 300 meters of firing point monuments except for artillery exercises. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. Use of FA FPs for live-fire requires closure of gates on the Roy Cut-off Road, along the west boundary, and at Chambers Lake Dam. Chambers Lake not available for mechanized tactical crossings.

- o. AREA: TA 13, Center ET 390076, 3817 acres.

TRAINING FACILITIES INCLUDED: Anzio DZ.

PRIMARY USES: Tactical maneuver training; airborne operations.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, with some clear-cuts and natural clearings.

TERRAIN: Level ground with some small hills and hollows. Bounded by State Route 507 on the west; transected by Muck Creek and Goodacre Road (see chapter 14 above) on the north. The buildings shown on the Ft Lewis 1:50,000 MIM Edition 4-DMA in grid square ET 3907 are gone.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Highway 507 and the rail line may not be blocked. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Requests for short-term blocks on Goodacre Road must contain detailed justification and must be submitted to Range Operations not less than 90 days prior to the event. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. Vehicular crossings of Muck Creek only at permanent bridges or at fords listed in chapter 14 above. The gas pipeline right of way parallel to Highway 507 along the west edge of the Training Area is not to be used as a road.

- p. AREA: TA 14, Center ET 414070, 1930 acres.

TRAINING FACILITIES INCLUDED: Rogers DZ, Pacemaker Assault Airstrip, LAPES Zone, Landing Strip 14.

PRIMARY USES: Airborne and airlanding operations; tactical maneuver training; TOW tracking.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, with some clear-cuts and natural clearings.

TERRAIN: Level ground with some small rises and hollows. Transected by Muck Creek and Goodacre Road (see chapter 14 above) on the north. Bounded by 8th Avenue S on the east.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Requests for short-term blocks on Goodacre Road and 8th Avenue S must contain detailed justification and must be submitted to Range Operations not less than 90 days prior to the event. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. Vehicular crossings of Muck Creek only at permanent bridges or at fords listed in chapter 14

above. Trainers should expect daily restrictions on maneuver and countermobility operations due to use of Rogers and Pacemaker for airborne/airlanding operations. The gas pipeline right of way that crosses the southeast corner of TA 14 is not to be used as a road.

q. AREA: TA 15, Center ET 440088, 3378 acres.

TRAINING FACILITIES INCLUDED: None.

PRIMARY USES: Tactical maneuver training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, with some clear-cuts and natural clearings.

TERRAIN: Level ground with some small rises and hollows. Transected by east to west by Muck Creek and Rice-Kandle Road (see chapter 14) and north to south by 8th Avenue E. Bounded by 8th Avenue S on the west.

LIMITATIONS: Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Requests for short-term blocks of 8th Avenue E, 8th Avenue S and Rice-Kandle Road must contain full justification and must be submitted to Range Operations not less than 90 days prior to the event. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. Vehicular crossings of Muck Creek only at permanent bridges or at fords listed in chapter 15. The gas pipeline right of way that crosses TA 15 diagonally from northeast to southwest is not to be used as a road. The fenced area along Muck and South Creeks is a designated Research Natural Area, and is open to foot movement only.

r. AREA: TA 16, Center ET 322035, 1523 acres.

TRAINING FACILITIES INCLUDED: MOUT Site (Regenburg); Nisqually River Recondo (RCD 2); Lewis Lake Amphibious/Bridge Training Site (A-3).

PRIMARY USES: Tactical maneuver training; MOUT operations; aviation training; water confidence training; amphibious training; cable, rope and float bridging.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Level in the south with hills and hollows in the north. Bounded on the south by the Nisqually River, with steep bluffs around Regenburg and along some of the river shore.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. The gas pipeline right of way parallel to the east edge of TA 16 from the 04 gridline south is not to be used as a road. The railroad bridge over the Nisqually River at ET 331015 is off limits. The bluffs along the Nisqually River are unstable and may not be used for climbing or rappelling.

- s. AREA: TA 17, Center ET 307023, 524 acres.

TRAINING FACILITIES INCLUDED: RCD 2 farshore-anchors.

PRIMARY USES: Tactical maneuver training; rope and cable bridging.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Level in the south; transected by steep bluffs leading to Nisqually River floodplain on the north. Some swamps and bogs. Entry road very rough from ET 312009 to ET 312016.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Vehicular access route through McKenna or Yelm. Entry road gate may be locked; check with Range Operations prior to leaving main post. Trainers planning vehicular road march into this TA should recon the route. The bluffs along the Nisqually River are unstable and may not be used for climbing or rappelling.

- t. AREA: TA 18, Center ET 280040, 2100 acres.

TRAINING FACILITIES INCLUDED: Marion DZ; Point de Hoc DZ; Landing Strip 18; Nisqually River Bridge Site (B-2), Nisqually River Ford.

PRIMARY USES: Tactical maneuver training; airborne operations; aviation training; engineer bridging; artillery live fire.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Level. Bounded on the south and west by steep bluffs leading to the Nisqually River floodplain. Transected by the Nisqually River in the west. Bounded by State Route 510 on the west.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. Entry into the South and Artillery Impact Areas from the Muck Creek crossing vicinity ET 282049 is prohibited. Trainers should expect restrictions on maneuver and countermobility operations due to use of Marion DZ and Pt de Hoc DZ. There is no ground connection along the east side of the river between TA 18 and TA 3S. The bluffs along the Nisqually River are unstable and may not be used for climbing or rappelling. The western portion of TA 18 falls inside Restricted Airspace R6703 and may be used for field artillery live fire training, per chapter 8 above.

- u. AREA: TA 19, Center ET 250030, 4833 acres.

TRAINING FACILITIES INCLUDED: Mytkina DZ; Landing Strip 19.

PRIMARY USES: Tactical maneuver training; airborne operations; aviation training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Many small hills, hollows and swamps. Some ponds. Limited cross-country mobility and few landmarks. Bounded by State Route 510 on the northeast. Transected by State Route 510 and Yelm Highway in the north. See chapter 14 for access limits from the east.

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. Highway 510 and the Yelm Highway may not be blocked. Rainier Fire Tower (ET 234043) and Rathbun Repeater Site (ET 262009) are off limits. **Interference with Weyerhaeuser Corporation logging operations on company-owned land is prohibited. Active Weyerhaeuser logging sites supercede military training and are off-limits. For details coordinate with Range Operations.**

- v. AREA: TA 20, Center ES 236999, 3583 acres.

TRAINING FACILITIES INCLUDED: None.

PRIMARY USES: Tactical maneuver training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Many small hills, hollows and swamps. Some ponds. Limited cross-country mobility and few landmarks.

LIMITATIONS: Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. **Interference with Weyerhaeuser Corporation logging operations on company-owned land is prohibited. Active Weyerhaeuser logging sites supercede military training and are off-limits. For details coordinate with Range Operations.**

- w. AREA: TA 21, Center ES 222962, 1122 acres.

TRAINING FACILITIES INCLUDED: Merrill DZ; Darby DZ; Landing Strip 21.

PRIMARY USES: Airborne operations; tactical maneuver training; aviation training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Level with small hills and hollows. A bluff running northeast-southwest separates Merrill from Darby and LS 21. Bounded on the southwest by Rainier Road Southeast. Military Road Southeast crosses the extreme southeast corner (see chapter 14 above).

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. **SPECIAL NOTE: The prairies in TA 21 are closed to off-road tracked vehicle maneuver and POV driving, to protect sensitive plants.** Rainier Road Southeast and Military Road Southeast may not be blocked. Trainers should expect some restrictions on maneuver due to use of DZs for airborne training. **Interference with Weyerhaeuser Corporation logging operations on company-owned land is prohibited. Active Weyerhaeuser logging sites supercede military training and are off-limits. For details coordinate with Range Operations.**

x. AREA: TA 22, Center ES 201986, 3901 acres.

TRAINING FACILITIES INCLUDED: El Guettar DZ; Landing Strip 22.

PRIMARY USES: Tactical maneuver training; airborne operations; aviation training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Many small hills, hollows and swamps. Some ponds. Limited cross-country mobility and few landmarks. Bounded on the southwest by Rainier Road Southeast and on the west by Spurgeon Creek Road (see chapter 14 above).

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Trainers should expect some restriction on maneuver and countermobility operations due to use of El Guettar DZ for airborne operations.

SPECIAL NOTE: The prairie in TA 22 (El Guettar DZ) is closed to off-road tracked vehicle maneuver and POV driving, to protect sensitive plants. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. Rainier Road Southeast may not be blocked. Requests for short-term blocks of Spurgeon Creek Road must contain full justification and must be submitted to Range Operations not less than 90 days prior to the event. Range 99, indicated at ES 209982 on the Edition 4-DMA 1:50,000 Fort Lewis MIM, is not on the active scheduling list.

y. AREA: TA 23, Center ES 175979, 4044 acres.

TRAINING FACILITIES INCLUDED: Landing Strip 23.

PRIMARY USES: Tactical maneuver training; aviation training.

TRAINING HOURS: 0001-2400.

VEGETATION: Douglas fir, alder, white oak, dense undergrowth with some clear-cuts and natural clearings.

TERRAIN: Many small hills, hollows and swamps. Some ponds. Limited cross-country mobility and few landmarks. Bounded from southeast to northeast by

Rainier Road Southeast, and on the east by Spurgeon Creek Road; transected in the north by Rainier Road Southeast and Stedman Road (see chapter 14 above).

LIMITATIONS: All included training facilities are off limits unless scheduled by the maneuver unit. Barriers and excavations must be coordinated with Range Operations. Pyrotechnics may be restricted during the fire hazard season, 1 June - 31 October annually. Rainier Road Southeast may not be blocked. Requests for short-term blocking of Spurgeon Creek Road and Steadman Road must contain full justification and must be submitted to Range Operations not less than 90 days prior to the event. Some environmentally-sensitive sites; see the Fort Lewis 1:50,000 Environmental Coordination Map. Prairie restrictions noted for TA 22 above also apply to the prairie areas of TA 23. Deschutes Fire Tower, indicated on the Edition 4-DMA Fort Lewis 1:50,000 MIM, has been demolished. The gas pipeline right of way that crosses TA 23 from southeast to northwest parallel to Rainier Road SE is not to be used as a road. **Interference with Weyerhaeuser Corporation logging operations on company-owned land is prohibited. Active Weyerhaeuser logging sites supercede military training and are off-limits. For details coordinate with Range Operations.**

APPENDIX E

TARGETS

E-1. ELECTRICAL TARGETS.

a. Target devices installed on hard-wired electrical ranges are maintained by the Range Electrical Target Section. **USING UNITS MAY NOT ATTEMPT DOWN-RANGE REPAIR, ADJUSTMENT, OR PLACEMENT OF ANY ITEMS ON THESE DEVICES.**

b. Armor and infantry radio-controlled and manually-operated target devices for live fire exercises are requested from TSC. Units must pick up, issue, emplace, and return these devices. Classes on use of these target devices are conducted periodically by the Range Division Master Gunner and the Live Fire Section. Assistance in use, emplacement, and servicing is also available from the Range Master Gunner and Live Fire. See current Fort Lewis telephone listings.

E-2. STANDARD PAPER TARGETS.

a. In appendix B, certain range descriptions include the annotation that standard paper targets are available from Range Supply. These targets must be requested as part of the range package in the RFMSS electronic request or on HFL Form 473, per chapter 4. Standard paper targets not listed in the RFMSS request or on HFL Form 473 must be ordered at Range Supply at least three working days prior to use. These requests may be telephonic or written.

b. Targets and range equipment must be receipted by the facility OIC for Active Component units, not more than two duty days prior to use. Reserve Component units may authorize weekday receipt by unit technicians, full-time manning personnel, or other unit personnel. Operating hours for Range Supply target issue and turn-in are available by calling Range Operations, 967-6371.

c. Units must return all receipted targets and frames, whether intact or destroyed, to Range Supply. Active Component units must make turn-in during the weekday hours above. Reserve Component units may make special arrangement for weekend turn-in by calling Range Supply two weeks prior to pickup. Intact targets are refaced by the using unit at the Building 4076 Target Shop, next to Range Headquarters.

E-3. ARMOR AND SPECIAL TARGETS. Range Control fabricates silhouette and three-dimensional wood targets, full-sized or scaled, for armor or other firing. Descriptions and codes for armor targets, per TC 25-8 (Training Ranges), are at Figure E-1. Orders for armor targets or large numbers of special targets must be submitted using the format at Figure E-2, not less than 30 days prior to firing. Unit assistance in construction may be required.

E-4. TARGETS AVAILABLE FOR ISSUE. Standard Army target illustrations are found in TC 25-8. Gunnery Target Codes:

1. The following are standard armor target types and codes per TC 25-8 (Training Ranges):

STANDARDIZED TARGET CODES

TYPE TARGET	CODE
T-64/T-72 FRONTAL	H-1
T-64/T-72 FLANK	H-2
T-64/T-72 PARTIAL DEFILADE	H-3
HIND FRONTAL	H-7
BMP FRONTAL	M-1
BMP FLANK	M-2
BRDM FRONTAL	M-5
BRDM FLANK	M-6
ZSU FRONTAL	M-9
ZSU FLANK	M-10
BTR FRONTAL	M-11
BTR FLANK	M-12
TRUCK FRONTAL (U-375)	L-1
TRUCK FLANK	L-2
BMD FRONTAL	L-3
BMD FLANK	L-4
T-12 ANTI-TANK FRONTAL	L-5
PERSONNEL (IVAN)	L-6
PERSONNEL (Plastic E-Silhouette)	L-7
PERSONNEL (Cardboard E-Silhouette)	L-8
PARTIAL PERSONNEL (Plastic/Cardboard)	L-9
ATGM TEAM	L-6/L-7/L-9
RPG TEAM	L-6/L-7/L-9

2. To request targets submit format at Figure E-2 to Range Supply **NLT 30 days prior to event.**

3. For more information contact the Range Division Master Gunner.

Figure E-1

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APPENDIX F

DPCA RECREATIONAL AREAS IN TRAINING AREAS

1. For DoD member use only, no permit other than ID card required:

NOTE: Use of specific sites is authorized only to military, retired military, DoD civilian personnel, their family members and accompanied guests.

Boat launch adjacent to Russell Landing Beach on American Lake - Beachwood area

Cat Lake Picnic and Fishing Area - Training Area 19

Chambers Lake Picnic and Fishing Area - Training Area 12 (See Para 3 below)

Fiander Lake Picnic and Fishing Area - Training Area 20

Johnson Marsh - Training Area 10

Lewis Lake Picnic and Fishing Area - Training Area 16

No Name Lake - Training Area 22

Sequalitchew Lake Picnic Area - Training Area 2

Shannon Marsh - CTA D

Skeet Trap Range - 2d Division Range Road, CTA E

Solo Point Boat Launch - North Fort, CTA A West

Sportman's Range - East Gate Road, Range 15

Wright Marsh/Lake - CTA C

Vietnam Village Marsh - Training Area 9 and 10

Spanaway Marsh - Training Area 9

Sears Pond - Beachwood Housing

Nisqually River - Training Area 18

3. For non-DoD member use, permit required: Chambers Lake and Nisqually River for fishing only.

4. The Solo Point road and the South Sanitary Fill roads are also open in an east-west direction only to personnel of the Weyerhaeuser Corporation and Lone Star Corporation, and their assigns, for business or recreation access to adjacent Army-owned real estate.

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APPENDIX G

NON-PERMIT ACCESS ROUTES

1. The following public easement routes may be used without permit or check-in:

Interstate Highway 5

Steilacoom-DuPont Road (ET 286163 to ET 301229).

Pacific Highway Southeast (ET 231121 to ET 249143).

Washington State Route 507 (ET 363065 to ET 428146).

Goodacre and Rice Kandle Roads (ET 386090 to ET 449076).

8th Avenue South (ET 424047 to ET 423127).

8th Avenue East (ET 439077 to ET 439128).

208th Avenue (ET 423128 to ET 431128).

Washington State Route 510 (ET 234065 to ET 246056 and ET 260048 to ET 272022).

Yelm Highway (ET 231058 to ET 238061).

Rainier Road Southeast (ES 167999 to ES 212943).

Military Road Southeast (ES 212943 to ES 214945).

Spurgeon Creek Road (ES 177988 to ES 178999).

Stedman Road (ES 152989 to ES 167998).

2. The following military routes may be used without permit or check-in:

Huggins Meyer Road (North Fort Road, ET 304204-ET 327215)

East Gate Road (C-5 Mock-up to 8th Ave South, ET 423097)

Roy Cut-off (Chambers Lake) Road (East Gate Road to Roy City Limits), when open.

Lincoln Avenue (Old Madigan to ET 390179)

3. The Solo Point Road is open to Weyerhaeuser Corporation personnel for business and recreation.

4. DoD personnel and Fort Lewis contractor personnel on official business may use all PW-maintained range roads and trails in the training areas.

5. Range roads closed for training by barricades or road guards will not be used. Barricades and guards will not be by-passed.

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APPENDIX H

AUTHORIZED ACTIVITIES FOR MANEUVER TRAINING AREA ACCESS

Military Training (FL Reg 350-30)

PW or Corps of Engineers Real Estate Agreement for commercial use (AR 405-80)

Installation service and maintenance (AR 420-74, FL Reg 350-30)

Non-DoD personnel in transit on public-access routes (appendix B) Non-Commercial recreational use:

Hunting, fishing and trapping (FL Reg 215-1)

Dog training (not allowed 1 April through 31 July in selected areas per FL Reg 215-1)

Horseback riding on roads and vehicle tracks

Walking, distance running

Model airplane and rocket flying (Range Control scheduling and Notice to Airmen (NOTAM) required)

Model boating

Orienteering

Sport parachuting

Organized rifle and pistol competition (Range Control scheduling required)

Scout activities and weekend camporees

Observation of wildlife and vegetation

Non-commercial picking of ferns, mushrooms, blackberries, apples and other vegetation

Photography

Hiking

Note: Permit holders for the above activities must certify that they are non-commercial and not for profit.

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APPENDIX I

UNAUTHORIZED ACTIVITIES IN MANEUVER TRAINING AREAS

Civilian paramilitary activities and combat games.
Off-pavement motorcycle riding.
Off-road vehicle operation.
Hang gliding.
Ultralight aircraft flying.
Hot air ballooning.
Souvenir hunting and metal-detecting, including recovery of ammunition residue or fragments, archaeological or cultural artifacts, or geological specimens.
Vehicle speed contests.
Wood cutting or brush picking, without PW or Corps of Engineer permit.
Commercial activities conducted for profit, including horseback riding rentals or guide service, dog training for reimbursement, or fund-raising events for other than non-profit organizations working in the public good. Fund raisers require PW Real Estate Agreement. For-profit activities require Corps of Engineer leases or permits, obtained through the PW Real Estate Office.
Overnight camping outside of DPCA sites (camping on DPCA sites is open to DoD members only, per above).
Consumption of alcoholic beverages.