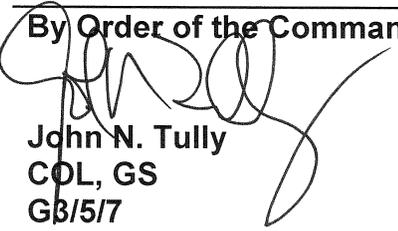


Department of the Army
Headquarters, US Army North (Fifth Army)
1400 East Grayson, Suite 152
Fort Sam Houston, TX 78234-7000
17 May 2011

Camp Bullis
Regulation 350-1

Training and Ranges Regulation

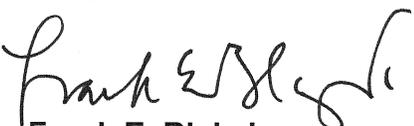
By Order of the Commander:



John N. Tully
COL, GS
GB/5/7

Proponent and Exception Authority The ARNORTH Commander is the proponent. The proponent has authority to approve exceptions to this regulation consistent with DA policies and procedures. The proponent has delegated approval authority to the FSH Army Support Activity Manager or his designated representative.

Official:



Frank E. Blakely
FSH ASA Manager

Suggested Improvements. The proponent of this regulation is the ARNORTH Commander. Users are invited to send comments and suggested improvements on DA Form 2028, Recommended Changes to Publications and Blank Forms, to the FSH Army Support Activity, ATTN: IMWE-ASA-ZA, Fort Sam Houston, TX 78234.

History. This publication is a complete revision of and replaces AMEDDC&S & FSH Regulation 350-2.

Distribution This Regulation is available to the public in electronic media and hard copy

Summary. This regulation establishes policies and procedures for the use of ranges and live-fire facilities at Camp Bullis.

Applicability. This regulation applies to all users of the Camp Bullis range complex.

Contents

CHAPTER 1 INTRODUCTION	6
1-1. Purpose	6
1-2. References	6
1-3. Definition of Terms	6
1-4. Responsibilities	8
1-5. Range Safety Certification Program	12
1-6. OIC/RSO Briefings	13
1-7. OIC/RSO Decertification/Suspension	13
1-8. Minimum Grade Requirements for OIC/RSO	14
1-9. Controlled Substances	15
1-10. Prohibited Activities	15
CHAPTER 2 RANGES/TAS/TSS	16
2-1. Range Control Hours of Operation	16
2-2. Range Scheduling	16
2-3. Range/Controlled Area/Impact Area Security	18
2-4. Range Waivers	19
2-5. Range Clearance and Police	20
2-6. Range Equipment and Targetry	21
2-7. Range Modifications	22
2-8. Non-Standard Training	23
2-9. Bivouac on Range Facilities	23
2-10. Aviation Operations	23
2-11. Combat Assault Landing Strip (CALs)	24
2-12. Airborne Operations	25
2-13. Rappel Operations	26
2-14. Leaders Reaction Course and Obstacle Course	28
2-15. Combined Arms Collective Training Facility (CACTF)	28
2-16. Live Fire Shoot House	28
2-17. Urban Assault Course (UAC)	29
2-18. Confidence Obstacle Course (CFOC)	30
2-19. Reconfigurable Vehicle Tactical Training (RVTT) Course	30
2-20. Convoy Live Fire Range	31
CHAPTER 3 AMMUNITION	32
3-1. Guidance	32
3-2. Policy	32
3-3. Transporting	33
3-4. Field Storage	34
3-5. Safety	34
3-6. Malfunctions	35
CHAPTER 4 LIVE FIRE	36

4-1. General.....	36
4-2. Night Fire	36
4-3. Weapons Malfunctions, Accidents, and Incidents.....	37
4-4. Medical Support for Training Units.....	37
4-5. Civilian/Individual Use Of Range Facilities	38
4-6. Simunitions	40
CHAPTER 5 SMALL ARMS	41
5-1. General.....	41
5-2. Specific Instructions for Small Arms and Machine Gun Ranges.....	41
5-3. Conducting Range Operations.....	42
5-4. Range Fires	43
CHAPTER 6 GRENADES AND GRENADE LAUNCHERS.....	45
6-1. Hand Grenade Familiarization	45
6-2. Grenade Launchers	46
CHAPTER 7 CHEMICAL AGENTS AND SMOKES.....	47
7-1. Chemical, Biological, Radiological, Nuclear (CBRN) Training	47
7-2. Smoke Operations	47
CHAPTER 8 HEAVY DEMO RANGE.....	49
8-1. General.....	49
8-2. Safety	49
8-3. Misfire Procedures.....	51
8-4. Maximum Charge (Max Chg).....	52
8-5. Explosives Firing Log and Explosive/Mine Firing Log.....	52
8-6. Training New Personnel	52
8-7. Transportation and Temporary Range Storage	52
8-8. Demolition Site Clearance	53
8-9. Simulators.....	53
8-10. Explosives Ordnance Demolition (EOD).....	54
CHAPTER 9 LASER RANGE OPERATIONS	55
9-1. General.....	55
CHAPTER 10 INTEGRATED TRAINING AREA MANAGEMENT (ITAM)	56
10-1. General.....	56
10-2. Waterways	56
10-3. Field Sanitation	56
10-4. Latrine Facilities.....	56
10-5. Field Showers/Laundry/ Dining Facilities	57
10-6. Petroleum, Oil, Lubricant (POL) and Hazardous Waste (HW) Storage Facilities.....	57
10-7. Solid Waste.....	58

10-8. Camouflage	58
10-9. Vehicle Usage.....	58
10-10. Archaeological and Historical Artifacts and Gravesites.....	59
10-11. Environmental Considerations	59
10-12. Endangered Species	61
10-13. Map Products.....	61
CHAPTER 11 INSTALLATION SUPPORT SERVICES	62
11-1. General.....	62
11-2. HQ Camp Bullis, Building 5000.....	62
11-3. Camp Bullis Supply Section, Building 5050	62
11-4. Class I.....	63
11-5. Class II.....	63
11-6. Class III.....	63
11-7. Class IV	64
11-8. Class VI	64
11-9. Class VIII	64
11-10. Telephone and Local Area Network (LAN) Support.....	64
11-11. Medical Clinic Support	64
11-12. Other Services	65
CHAPTER 12 SAFETY.....	66
12-1. Safety and Risk Assessment	66
12-2. Training Accidents	67
12-3. Unexploded Ordinance (UXO).....	67
12-4. Inclement Weather/Weather Alerts and Warning.....	68
12-5. Heat Injuries.....	68
12-6. Cold Weather Injuries	70
12-7. Lost/Missing Personnel.....	71
12-8. Road Network, Tank Trails, and Vehicle Operations	72
12-9. Bicycling, Foot Marches, and Physical Training.....	73
12-10. Blackout Drive Areas and Requirements	74
12-11. Privately Owned Vehicles (POVs)	74
12-12. Wash Racks.....	74
12-13. Bulk Fuel Operations	75
12-14. Communications	75
APPENDIXES.....	77
Appendix A Description of Range Facilities	77
Appendix B UXO Briefing.....	85
Appendix C Certification Memorandum	89
Appendix D Spill Reporting Procedures.....	90
Appendix E Ammunition Found on Post/Ammunition Amnesty Program (AFOP/AAP)	91
Appendix F Initial Incident Report	92
Appendix G After Action Review Form.....	93

Appendix H Example Maneuver Scenario Memorandum	94
Appendix I Exception to Policy Memorandum.....	97
Appendix J Special Site Request.....	98
Appendix K General Liability Waiver.....	99
Appendix L Required and Related Publications	100
Appendix M Acronyms	102

Chapter 1 Introduction

1-1. Purpose

a. To define responsibilities and prescribe the policies and procedures to be followed by all units, civic organizations and individuals utilizing Ranges, Training Areas (TAs), or Training Sites (TSs) at Camp Bullis.

b. This regulation supplements, supports and is granted authority through Army Regulations (ARs) 210-21, 350-1, 385-63, 350-19, Department of the Army (DA) Pamphlet (PAM) 385-63, and all other applicable safety directives as well as pertinent field and technical manuals.

c. General information on range and training facilities and their basic capabilities is provided in Appendix A to this document. Specific pertinent information on each facility will be found in the facilities Standard Operating Procedure (SOP).

d. Information on installation facilities and services that are not part of the Range Complex should be coordination with the 502nd Mission Support Group (MSG).

1-2. References

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

1-3. Definition of Terms

a. Cease-Fire. A command to immediately discontinue firing. Any person observing an unsafe condition at the firing location may give the command. This term is also used as a control measure during training.

b. Close Combat Mission Capability Kit (CCMCK). Used for marking ammunition.

c. Command Certified. The certification by a unit Commander (O-5 or above) that a specific individual has received the necessary training and possesses the knowledge and experience to properly and safely supervise the live firing of a specific weapon system.

d. Controlled Firing Area (CFA). Established to contain activities, which, if not conducted in a controlled environment, would be hazardous to nonparticipating aircraft. The CFA shall be used for those activities, which are either of short duration or of such a nature that they could be immediately suspended on notice that such activity might endanger nonparticipating aircraft.

e. Controller. A qualified Commissioned Officer (CO), Warrant Officer (WO), or Non-Commissioned Officer (NCO) (Staff Sergeant [SSG] or above) who is directly responsible to the Range Safety Officer (RSO) for the coordination and control of maneuver elements, and organic supporting fires in strict compliance with all safety regulations.

f. Cook Off. A round which functions out of the intended sequence due to heat buildup in the barrel or tube.

g. Dry Facility. Range facility which is in use or is occupied with no actual live fire involved.

h. Unexploded Ordnance (UXO). Explosive ammunition that has not been armed as intended or failed to explode after being armed.

i. Dudded Area. Any area known or likely to contain UXO of any kind.

j. Hang Fire. An undesired delay in functioning of a firing system. A hang fire for a rocket occurs if the propellant is ignited by the firing impulse but fails to exit the launcher within the expected time.

k. Hot Status. Is defined as anytime weapons, ammunition, or ordnance are present on a range facility. A red range flag by day supplemented by a red light during the hours of darkness will be displayed at all times during hot status.

l. Impact Area. An area specifically designed to contain UXO producing munitions, rounds, residue, or Lightwave Amplification by Stimulated Emission of Radiation (LASER) beam impact. There are two categories of Impact Area:

(1) Permanent Impact Areas: Designated within the complex and intended for indefinite use. The Training Area Manager must approve entry into permanent impact areas.

(2) Temporary Impact Areas: Designated within the complex and designed for one time use. These areas are in conjunction with fire and maneuver exercises, where Soldiers will maneuver into an area after it has received fire. The establishment of temporary impact areas requires the permission of the Training Area Manager, Environmental, and the Fort Sam Houston (FSH) Army Support Activity (ASA) Range Safety Officer. Unless every round was observed as detonated, the area must be surface cleared by the unit under the supervision of Explosive Ordnance Disposal (EOD) and Range personnel prior to units maneuvering.

m. Incident. An unintentional or chance event, likely to result in property damage or injury to personnel.

n. LASER RSO (LRSO). The CO, WO, or NCO (SSG or above) designated by the unit Commander who is responsible for all operational and safety aspects concerning LASER operations on a range or training facility.

o. Misfire. Failure of a primer, propelling charge of a round, rocket or guided missile ignition and/or propulsion system to function wholly or in part.

p. Malfunction. Failure of an ammunition item to function as expected when fired or launched, or when explosive items function under conditions that should not cause functioning. Malfunctions include hang fires, misfires, duds, abnormal functioning, and premature functioning of explosive ammunition items under normal handling, maintenance, storage, transportation, and tactical deployment. Malfunctions do not include accidents or incidents that result solely from negligence, malpractice, or situations such as vehicle accidents or fires. Malfunctions are divided into three classes:

(1) Class A. Malfunctions that result in death or lost-time injury, are similar to previous malfunctions that have resulted in death or lost-time injury, are judged as having had an appreciable probability of causing death or lost-time injury, or that have adverse political implications.

(2) Class B. Malfunctions that result in damage to major equipment that cannot be repaired at unit level maintenance or result in an ammunition suspension that significantly impacts readiness or training.

(3) Class C. Malfunctions that are neither class A nor class B.

(4) Class X. Any other non-performance incident malfunctions (visual defects).

q. Maximum Charge (Max Chg). The total of any single or combined detonation set off simultaneously or with less than a 30 second interval between charges.

r. Officer-In-Charge (OIC). The CO, WO, or NCO (Sergeant First Class [SFC] or above) designated by the unit Commander who is responsible for all operational and safety aspects of a range or training facility.

s. RSO. A qualified CO, WO, or NCO (SSG or above), who is directly responsible to the OIC for safety on the range facility.

t. Simunitions. A reduced-energy, non-lethal and non-toxic cartridge, which leaves a detergent-based, water-soluble, color-marking compound at impact. These visible impacts allow accurate assessment of simulated lethality.

u. Switches/Hot. Armament sub-systems are considered hot with switches on and circuit breakers in.

v. Switches/Cold. Armament sub-systems are considered cold with the master arm switch on safe or off position.

w. Wet Facility. Range facility which is in use and on which ammunition or demolition is being fired.

1-4. Responsibilities

These are primary responsibilities reinforced here for the implementation of range safety. The full scope of responsibilities can be found in DA PAM 385-63, dated 4 August 2009.

a. Chief of Training, Education, and Security (TES), (210) 221-0822. Manage the Integrated Training Area Management (ITAM) Program through the ITAM Coordinator, Building 6201, Camp Bullis.

b. Training Area Manager, (210) 295-7539. The Training Area Manager is responsible to the Chief of TES for the control, supervision, safety, issuance, clearance, maintenance, and coordination of all range training activities and associated facilities on the installation. The Training Area Manager will maintain this regulation and installation policy current to applicable range and safety directives.

(1) Supervise Range Control personnel and operations. Range Control, Building 6110, will serve as the central point of control and coordination for access to

the Impact Area and the air space. In addition, Range Control will operate as net control for the range and aviation tactical frequencies, the Range/Training Admin net, and as the Emergency Operations Center for training emergencies. Range Control Net frequency modulation (FM) Radio 34.20, call sign: Range Control, and Air Operations ultrahigh frequency (UHF) 226.3.

(2) Make on the spot corrections of violations of this regulation or other applicable directives to include relieving the OIC/RSO when deemed appropriate. Major violations will be reported to the Chief of TES.

(3) Provide input and update the Range Complex Master Plan.

(4) Provide safety briefings, guidance, and range orientation for OICs and RSOs.

(5) Resolve conflicts concerning Range Operations.

(6) Ensure that range equipment is accounted for and maintained in a serviceable condition and adequate for issue to using units.

(7) Coordinate for and oversee all planning, construction, and maintenance of range facilities.

(8) Plan and initiate actions necessary to keep the range complex abreast of changing weapons and doctrine.

(9) Notify the FSH ASA Range Safety Officer of any serious range accident or incident.

c. FSH ASA Range Safety.

(1) Will provide assistance to the Training Area Manager and Range Officer on hazard abatement and risk assessment.

(2) Will investigate serious range accidents and incidents in accordance with (IAW) AR 385-40 and file appropriate reports.

(3) Acts as the Installation LASER Safety Officer.

(4) Will conduct an annual review of the Camp Bullis Range Training Regulation 350-1 to ensure compliance with safety regulations.

(5) Supervise safety on the Range Complex and coordinate for range maintenance. He will additionally maintain unofficial records for all historical range data.

(6) Advise and coordinate with the OIC/RSO to ensure the safe and efficient operation of range facilities. This will include inspections and/or supervision of firing to guarantee compliance with this regulation.

(7) Investigate accidents/incidents.

(8) Notify Quality Assurance Specialist Ammunition Surveillance (QASAS) concerning any incident involving munitions.

d. Commanders.

(1) Commanders are ultimately responsible for the safe operation of all range facilities occupied by their units and the compliance of their units with this regulation.

(2) Commanders at all echelons are responsible for implementing the requirements set forth by AR 40-5 on hearing conservation. OIC's and RSO's will require all personnel in the vicinity of their range to use hearing protective devices during live firing. Hearing protective devices are a unit issue item.

(3) Ensure subordinate units comply with the requirements of this regulation, AR 385-63 and applicable field manuals (FMs) and technical manuals (TMs) relating to weapons, ammunition and training facilities. Ensure subordinate commands conduct safe and proper training on ranges or TAs.

(4) The Commander of any element using Ranges or Training Facilities on Camp Bullis has the ultimate responsibility for all actions that occur on that facility. The Battalion Commander (U.S. Army), Squadron Commander (U.S. Air force), or Installation Commander (U.S. Marine Force) will designate an OIC to be responsible for the safe conduct of training and proper use of the facility. When live firing is to be conducted, the Commander will also appoint an RSO to assist the OIC in his duties. If LASERs are to be used an LRSO will also be appointed to assist the OIC concerning LASER safety. The OIC, LRSO, and RSO will be certified to perform their duties as described in Paragraph (Para) 1-3 of this regulation. The designation and presence of an OIC or RSO does not relieve the Commander of the responsibility for safe conduct of training or firing.

(5) Ensure that each firer has received at least four (4) hours of preliminary marksmanship instruction (PMI) prior to using the range.

e. OIC. The OIC has responsibility for the overall safe conduct of training on the facility. The OIC will:

(1) Ensure that RSO's are validated by a command certification letter, briefed by Range Control, have valid Safety Cards in their possession and the unit has in-processed through Range Control, Building 6110, Camp Bullis.

(2) Must be physically present along with the RSO and medical coverage at the range during hot status.

(3) Ensure that he/she has no other additional duties while acting as OIC.

(4) Sign for and be responsible for turn in all range facility equipment and keys from Range Control.

(5) Ensure that he/she has a copy of this Range Regulation and applicable weapons and ammunition publications on hand at the range facility prior to firing.

(6) Establish radio communications with Range Control prior to occupying the range facility and ensure that it is maintained and monitored on dedicated equipment until the unit is cleared.

(7) Ensure that a DA Form 1594 Daily Staff Journal or Duty Officer's Log is maintained noting all significant activities. Significant activities include but are not limited to:

- (a) Opening the range
 - (b) Hot and Cold times
 - (c) Change of duty such as radio/telephone operator (RTO), Medic, OIC/RSO, LRSO
 - (d) Misfires and malfunctions
 - (e) Radio Checks
 - (f) Range Control inspections
 - (g) Closing the Range
 - (h) Significant events
- (8) Ensure the range facility is cleared and all keys and equipment have been turned in.
- (9) Ensure that he/she and the RSO know safe routes in and out, limits for the weapons/ordnance being used, and that Range Control has been informed about weapons systems, ammunition, simulators, flares, explosives, or other ordnance to be fired.
- (10) Prior to commencing range operations, conduct a safety and information briefing for all personnel on UXO, the use of hearing protection, seasonal warnings, weapons and ammunition warnings, "cease-fire freeze", and the installation's Ammunition Found on Post/Ammunition Amnesty Program (AFOP/AAP).
- (11) Ensure that barriers are locked or guards are in place, adequate medical coverage is available, and the red flag/light is displayed from the range facility flagpole before requesting "hot status". Range Control will be notified of all cease-fires that will exceed 30 minutes. At the completion of firing the OIC will request a "cold time" and give an approximate time for clearing the facility. All times and changes of status will be recorded on the Camp Bullis Range Acceptance/Clearance Checklist.
- (12) Ensure that any nonstandard operations have been cleared in advance by Range Control and meet all requirements. If Range Control and the OIC do not have a copy of the approved overlay, the range will not be cleared to fire.
- (13) Immediately notify Range Control of all accidents and weapons/ammunition malfunctions and personally supervise the procedures for misfires, hang fires, and cook-offs.
- (14) Ensure that personnel strength and times of occupation are reported even on range facilities where there was no live fire. Range usage data applies to all range facilities where personnel strengths are not included as part of another range facility.
- f. RSO. Personnel assigned duties as a RSO are responsible for the safe conduct of fire and will not be assigned additional duties while performing this function. The RSO must be physically present during live fire. The RSO will:
- (1) Ensure that weapons are at the proper firing location; only authorized ammunition, explosives, training devices are used; firing settings and limits are properly set and verified; and all weapons are inspected before firing to ensure safe operation.

(2) Check visible parts of the Impact Area, back blast area, and the downrange area for personnel or equipment before live firing. This will include placement of guards and/or barriers denying access to the impact and downrange areas.

(3) Prevent improper handling of ammunition, weapons, simulators, and/or explosives.

(4) Ensure that all personnel on the range facility wear hearing protection during live firing.

(5) Ensure that the medical support requirements of this regulation and the unit Commander's directive are met before allowing live firing to commence or continue.

(6) Ensure that a safety and UXO briefing is conducted for all personnel. Safe operating procedures pertaining to the weapon system and ammunition being used will be explained and all firers will be instructed on immediate action and misfire procedures (example in Appendix B).

(7) Upon completion of firing, verify weapons are clear to the OIC. UXO locations will be identified to Range Control personnel with number and approximate location recorded on the Camp Bullis Range Acceptance/Clearance Checklist under "REMARKS".

1-5. Range Safety Certification Program

a. All OICs and RSOs are required to have a current range safety certification card issued by Range Safety Officer. This also applies to other organizations to include local police offices, U.S. Government agencies, and other non-military organizations approved use of ranges and TAs.

b. The Range Safety Certification program is a joint effort between the using unit Commander and Range Control to ensure that the Soldiers are well versed in both the weapons systems and the ranges on which they are employed. Range Safety Certification process includes:

(1) Commander Certification. The using unit Commander, equivalent to battalion level or above, will certify in writing to Range Control that the OIC, LRSO, and RSO are qualified and competent on the weapon to be fired. Competency includes knowledge of misfire procedures, malfunctions, hang fire, downloading, uploading, ammunition handling/storage, weapon clearance procedures, ballistic ranges, fire control procedures, and other hazardous characteristics of the weapon being employed. See the example memo in Appendix C.

(2) Range Certification. Appointed OICs/RSOs must complete range certification training at the unit. Training will ensure OICs/RSOs are familiar with range safety requirements in general and the specific safety requirements for individual ranges (where applicable). At the successful completion of training, OICs/RSOs will contact the FSH ASA Range Safety Officer to schedule a Range Safety Briefing at Camp Bullis. A range safety card will be issued upon completion of the Range Safety Training and will be valid for one year (renewable annually through update briefings at Range Control). Individuals must have this card to sign and execute duties as OIC/RSO.

1-6. OIC/RSO Briefings

OIC/RSO Briefing is conducted at the Range Control classroom located in Building 6107, Classroom 1A and 1B at Camp Bullis on Fridays at 0900 (next to the Range Control Building 6110). Certification as OIC/RSO remains valid for one (1) year. Requests for special briefing times or locations can be submitted in writing or by calling Range Control, (210) 295-7510, a minimum of five (5) working days in advance.

1-7. OIC/RSO Decertification/Suspension

a. Decertification is the loss of privilege to act as OIC, LRSO or RSO on Camp Bullis due to a major violation of safety procedures. Suspension of privileges may be derived from reoccurring minor violations or a major violation of regulations, SOPs, pamphlets or other pertinent memoranda governing the use of a facility or system.

b. Examples of major violations are:

- (1) Any violation to the criteria established in this regulation.
- (2) Repeated loss of communications or failure to make/respond to radio checks with the Range Control.
- (3) Firing on an unopened range.
- (4) Firing during a cease-fire.
- (5) Failure to report a serious incident.
- (6) Firing without proper medical support on-site.
- (7) Extensive damage to a range facility.
- (8) Firing without a control number on exercises that require overlays.
- (9) Intentional disregard for guidance from a Range Control representative.

c. Examples of minor violations are:

- (1) Denying range personnel access to inspect training.
- (2) Failure to report a change of OIC/LRSO/RSO during a live fire.
- (3) Failure to secure a range entrance.
- (4) Failure to maintain a DA Form 1594.
- (5) Failure to comply with the Range Acceptance Checklist.
- (6) Failure to properly clear a range.
- (7) Performing range modifications without prior coordination with Range Control.
- (8) Individuals lacking proper hearing protection.

d. Decertification requires the Soldier to wait a minimum of 60 days prior to re-certification. To re-certify, the Soldier must re-take the OIC/RSO briefing and receive additional training on the subject area upon which they were decertified. Incidents revolving around weapons systems will require recertification on that system at the unit level.

e. The decision to suspend or decertify an individual rests at the level of the ASA Range Officer.

f. Decertification is accomplished by memorandum to the unit-certifying Officer with a copy furnished to the FSH ASA Range Safety Office. The memorandum will contain information concerning the incident to include the date, time and description of the event that warranted decertification and a statement detailing how and when the individual may be re-certified.

g. Decertification relieves the OIC/RSO from safety duties. The length of the suspension will be directly affected by the circumstances. A memorandum of record is maintained at Range Control to document the circumstances and the Soldier's card is taken until the suspension period has elapsed.

1-8. Minimum Grade Requirements for OIC/RSO

a. The grade requirements for OIC and RSO listed below are mandatory. IAW DA PAM 385-63 Chapter 1 Para 1-7g, the FSH ASA Manager may reduce the OIC/RSO grade requirement in Table 1-1 by not more than one grade, with the following exceptions:

(1) RSO for Marine Corps will be E6 or above for hand grenades.

(2) Marine Corps EOD units are exempt from OIC/RSO requirements. EOD units conducting EOD operations and training will supervise demolition and disposal operations following the guidance contained in NAVSEA OP5, NAVSEA SWO60-AA-MMA-010, and EODB 60 series publications. Marine Corps EOD units conducting disassembly and inserting will assign a qualified EOD technician as an RSO. The RSO may be an E-5 or above if, they are currently qualified as an EOD Officer or technician Military Occupational Specialty (MOS) 2305/2336.

Table 1-1. Range Safety Personnel Grade Requirements

FUNCTIONAL AREA:	OIC			RSO		
	OFF	WO	NCO	OFF	WO	NCO
Rappel Towers	X	X	E7	X	X	E7
Live hand grenades	X	X	E7	X	X	E6
Convoy live fire	X	X	E7	X	X	E6
Demolition	X	X	E7	X	X	E6
Practice hand grenade and rifle grenades; Sub-caliber training devices; LASER ranges, firing devices; simulators, trip flares; small arms and machineguns.	X	X	E6	X	X	E5
Chemical, Biological, Radiological, Nuclear (CBRN), Chemical agents and smoke 1,2	X	X	E6	X	X	E5
Notes: 1. OIC and RSO must be nuclear, biological and chemical qualified when conducting CBRN or smoke training. 2. RSO for Marine Corps will be E6 or above for practice hand grenades, chemical agents and smokes. The FSH ASA Manager may allow E5 to act as RSO for practice hand grenades, chemical agents and smokes.						

1-9. Controlled Substances

No alcoholic beverages or controlled substances will be consumed or be present at any range, TA, or TS any time.

1-10. Prohibited Activities

- a. Possession and consumption of alcoholic beverages or controlled substances on the range complex.
- b. Firing of ammunition, pyrotechnics, missiles, and/or rockets over field SOPs, ammunition transfer points, or any ammunition storage area.
- c. Firing of any ammunition not approved by the Training Area Manager.
- d. POVs used for transportation to ranges, TSs, and TAs.
- e. Use of bicycles in the TAs.

Chapter 2 Ranges/TAs/TSs

2-1. Range Control Hours of Operation

a. The Range Control is operational 24/7. Normal duty hours for Range Operations, Scheduling, and ITAM are 0700-1600 Monday through Friday (M-F). Special requests for extensions of these times with appropriate justification should be submitted to the Training Area Manager at least 30 days in advance.

2-2. Range Scheduling

a. The Primary means of scheduling will be through Range Facility Management Support System (RFMSS). All ranges must be scheduled 180 days prior to execution and a minimum of 21 business days out.

b. A valid RFMSS User ID and Password will be assigned by the RFMSS Functional Administrator.

c. Information on how to utilize the web site can be attained from Range Scheduling at (210) 295-7686/7616.

d. Once a valid User ID and Password are attained, users can access RFMSS by utilizing the following website: <https://rfmss.belvoir.army.mil>.

e. Exceptions to the RFMSS scheduling requirement will be approved by the Training Area Manager on a case-by-case basis, (210) 295-7539. Upon approval, contact Range Scheduling, (210) 295-7686/7616.

f. Units on deploying orders scheduled to deploy will have priority for all ranges on Camp Bullis. If there is an irreconcilable conflict of interest between two deploying units, then the ASA Range Officer will determine the priority based on the request date and the date of deployment.

g. Co-use consists of a primary unit (the unit with priority) and secondary unit(s). The primary unit must approve co-use. The primary unit Commander assumes responsibility for the safety and coordination of all units involved. The primary unit is responsible for providing the scheduling section with an amended range request addressing changes. In the event that the range is a maneuver live fire or two (2) ranges that conflict, then the primary unit is responsible for ensuring that a scenario is submitted IAW this regulation.

h. Static fire ranges (qualification, familiarization, zero, etc) will be scheduled a minimum of 21 business days prior to execution. Night-fire must be specified on the initial range request. Extensions to daytime firing schedules in order to night-fire will not routinely be granted and must be cleared through the ASA Range Officer.

i. The ASA Range Officer may approve same day scheduling of static fire ranges on a case-by-case basis.

j. Due to manning requirements, units must schedule hours of operation accurately. Ranges that exceed scheduled usage will be approved on a case-by-case

basis by the ASA Range Officer and may require reimbursement for unscheduled Range Control overtime.

k. Cancellations must be received a minimum of 30 business days prior to the execution date. If a unit is forced to cancel inside the 30-day deadline or is a no show, a justification letter must be submitted to Training Area Manager. All late cancellations, no shows and justifications will be reported to the Training Area Manager and the first O-5 rank in the unit's chain of command. Scheduling of ranges inside the 21 days of execution requires coordination with Range Manager.

l. Trained operators are provided for automated ranges. This does not relieve the unit of OIC/LRSO/RSO responsibilities; however, it does greatly add to the operating expense of the range. When a unit's range usage requires overtime for the operators, either because of the hours requested or because more time is required than scheduled, the unit may be charged for the overtime operation. Range operation starts and ends at Range Control and includes the range preventive maintenance checklist system (PMCS) and shutdown checks. Range Operators are scheduled for the times the unit has been approved on a given range.

m. Questions regarding range facility capabilities or scheduling should be communicated directly to the Range Officer, (210) 295-7732. Every effort will be made to accommodate training needs.

n. Logistical requirements are scheduled/coordinated with the 502nd MSG, see Chapter 11, Installation Support Services, of this regulation.

o. Unit Priorities for Scheduling:

(1) Deploying units, to include Reserve Component (RC) units in a mobilized status. Orders must be shown to receive priority scheduling.

(2) All major training events scheduled/directed by higher headquarters (HQ) (i.e. New Equipment Training [NET]).

(3) Active duty Institutional Program of Instruction (POI).

(4) RC units upon receipt of orders in preparation for mobilization (pre-mobilization training).

(5) Other active duty units stationed on FSH/Camp Bullis.

(6) RC units stationed on FSH/Camp Bullis.

(7) Active duty units not stationed on FSH/Camp Bullis.

(8) RC units not stationed on FSH/Camp Bullis.

(9) Reserve Officer Training Corps (ROTC).

(10) Junior ROTC.

(11) All other government organizations.

(12) All other non-government organizations approved by Department of Defense (DoD) Regulation 5500.7-R, Joint Ethics.

2-3. Range/Controlled Area/Impact Area Security

a. The Range/Controlled Area/Impact Area is marked by warning signs and/or locked barriers. Entry into the Impact Area is strictly prohibited without Range Control permission and possession of a key does not in any way imply free access. Unauthorized entry is a federal offense and those apprehended will be prosecuted. All personnel requiring access must report to Range Control and coordinate the reason, destination, and routes to be used prior to their being allowed entry.

b. The Training Area Manager must clear entry into the Impact Area by anyone other than members of Range Control. Access will only be considered for approval after the proper information has been submitted. Information that must be provided will include the purpose of entry, how transportation will be handled, locations visited, timeline of the event, risk assessment and a signed waiver of liability (Appendix K) from the individual to the federal government and the installation. A blanket acceptance of liability statement (Appendix K) signed by the sponsoring unit Commander may be required.

c. Communications will be continuously maintained with Range Control while in the Impact Area.

d. All Range/Control Area/Impact Area gates will either be locked or guarded by the unit using the area. Guards that are not within visual and verbal distance of the range facility must have two-way wire or radio communication with the range.

e. Keys will not be issued in bulk. The OIC and RSO are the only individuals authorized possession of the keys for their ranges. If the OIC or RSO are replaced or rotated, then keys can be transferred to the oncoming authority after verbal notification to Range Control.

f. The following areas are off limits to training:

(1) Unless access is authorized by Range Control, all Camp Bullis Ranges and TAs are off-limits.

(2) Camp Bullis Impact Area.

(3) All ponds, streams, wetlands, and the land within 50 meters of their shores are off-limit areas to vehicles (including bivouacs) unless specifically stated as a training requirement, and approved in writing by Range Control.

(4) All fenced areas (i.e. TSs, Tactical Training Base/Forward Operating Base [TTB/FOBs] or areas which require authorized access).

(5) All marked environmental areas such as Landfill 8 on Lewis Valley Road, caves, karst features, endangered species habitat, etc.

(6) All units' ammunition holding areas.

(7) Water treatment plant and the sewage treatment plant.

(8) Identified archaeological/historic sites.

2-4. Range Waivers

a. Requirement for waiver. Safety standards established in DA PAM 385-63 and AR 385-63 will be strictly enforced. However, when safety standards outlined cannot be met, an approved waiver is required prior to firing. AR 385-63 requires that a Commander using a range facility that does not meet the standard safety requirements that it defines must seek a waiver to those requirements. The Commander describes how the non-standard training can meet safety requirements due to extenuating circumstances (terrain physically constrains the effects of munitions; direct physical restraints employed by unit personnel will constrain weapons effects; etc). The Commander's risk assessment addresses those areas of training, which must be waived and how each risk will be addressed to ensure safety. Commanders must keep in mind that they are inherently authorized to evaluate risks to their Soldiers but do not have a legal basis for doing so for civilian populous outside the complex. As such, extreme care will be taken during the waiver process to ensure no endangerment to civilian personnel or their material possessions. DA PAM 385-63 Chapter 1 Para 1-5c describes the documentation requirements necessary.

b. Safety Waiver Deviation Authority. The FSH Installation Commander is the waiver authority for Camp Bullis.

c. Initiating and processing range waivers.

d. All waiver requests must be coordinated through the Training Area Manager.

e. Range safety waiver packets must be processed no later than (NLT) 90 business days prior to the training event to ensure complete and proper safety reviews and command staffing.

f. Any unit may use an existing waiver regardless of the unit who processed it as long as that waiver is still valid and the unit follows the conditions and prescriptions established.

g. Camp Bullis Range Control is able to assist units in the coordination of a waiver through all phases of staffing. Digital waiver packet examples can be emailed to the unit to expedite construction.

h. Once a waiver has been approved, it is valid for one (1) year. One (1) year extensions to the original waiver may be granted by the waiver authority if specific conditions contained in the original waiver have not changed (range terrain, boundaries, munitions, etc.). A waiver may be extended no more than five (5) times. At the end of the fifth extension, a new waiver packet must be generated and the facility re-surveyed for safety conditions. If any condition of the original waiver has changed, a new waiver or a modification addendum to the original waiver must be processed.

(1) Any unit can request an extension of an established waiver. All personnel involved in live fire training on any range will be made aware of the waiver limitations prior to firing.

(2) Any live fire accident or incident on a waived range will cause the existing waiver to be immediately void. Upon completion of a proper investigation, the waiver authority or his/her designed representative, may reinstate portions of or the entire

original waiver, require its modification or require a new waiver be completed. Units may not resume live fire training until a final determination has been made.

2-5. Range Clearance and Police

a. The using unit is responsible for the condition of the facility once it is signed for. The unit will be held responsible for recovering any debris on the facility regardless of type, age or ownership. Units can avoid this inconvenience by notifying Range Control of any discrepancies before signing for the range.

b. Once training is completed, we request that you take the time to fill out an After Action Review (AAR) Form (Appendix G), rating Range Control's performance. Unit can use the Interactive Customer Evaluation (ICE) program to make comments regarding Camp Bullis training. This report is an opportunity for you to suggest improvements, request modifications and rate the performance of support personnel. We also ask that you leave your phone number, so that we can contact you and report our progress concerning your issue(s). The Range Officer reviews the AAR Forms and we will respond if you leave your number. An AAR Form can be picked up at the Firing Desk, in the Range Tower, or copied from Appendix G of this regulation.

c. Upon completion of training the OIC/RSO will have unit personnel conduct a thorough police and cleaning of the range facility according to the instructions in the range book. A Range Control representative will then meet with the OIC to clear the facility. Units will not be allowed to clear post until all areas used have been policed properly, inspected, cleared, and all equipment and keys accounted for by Range Control. If it is impossible for the inspection to be conducted prior to unit departure or there are still outstanding discrepancies, only a "conditional clearance" from the installation will be granted. The unit will have to make firm arrangements to promptly correct their deficiencies. Units with discrepancies after 30 days will not be able to sign for additional TAs until this issue is corrected.

d. All trash and garbage will be transported by units to be disposed of in cantonment area dumpsters or dumpsters located in selected TAs. Trash sumps will not be dug on the reservation. Kitchen sumps are located in a pre-designated area and must be coordinated with Range Control. Absolutely no digging prior to ITAM approval.

e. Camp Bullis has an active recycling program in place. All paper, cardboard, and plastic (#1 and #2) shall be collected and disposed of at the recycling bin near the Gym. Clear glass bottles, steel cans, and aluminum T-ration containers shall be collected, and disposed of at the recycling bin by the Outdoor Recreation Center.

f. Units conducting night fire will be cleared the next morning; however, all range keys and equipment will be turned in as soon as firing ends. Coordination will be made with Range Control as to a meeting time the next day for clearance.

g. All entrance, exit, and course routes must be policed and any damage repaired or reported to Range Control.

h. All buildings must be swept and cleaned and all power will be turned off.

- i. All firing positions must be cleared and will be left uncovered for inspection. When inspection is complete the unit will replace the covers.
- j. Two (2) tied serviceable sandbags will be maintained in front of each position. Sandbags must be neatly and uniformly stacked with end ties facing the same direction. The unit will replace unserviceable sandbags.
- k. Firing lines will be policed and raked prior to clearing and all brass and firing residue turned into the Ammunition Supply Point (ASP).
- l. The terrain must be restored to its original condition except when Range Control gives permission to leave emplacements. All temporary berms, fighting positions, bunkers, and target positions must be backfilled and the terrain contour restored.
- m. Broken or unserviceable range fixtures or equipment must be repaired if possible or if not, reported to Range Control.
- n. The range is considered cleared when all of the following requirements are met:
 - (1) RSO verification of weapons cleared and safe.
 - (2) Cold time requested and received from Range Control.
 - (3) Range inspection completed by ASA Range Technician.
 - (4) Range OIC completed utilization data on the Camp Bullis Range Acceptance/Clearance Checklist and an ASA Range Technician has signed it.
 - (5) The Camp Bullis Range Acceptance/Clearance Checklist and all range equipment returned to Range Control.
- m. Clearance of units, battalion size or larger may at the request of the unit and with Range Control concurrence, be completed at the end of their training period rather than on a daily basis. This will be accomplished as follows:
 - (1) The unit Commander will appoint a Range Clearance Officer (RCO) in the grade of E-7 or above.
 - (2) At least 24 hours prior to clearance the OIC will meet with Range Control. They will compile a list of facilities to be cleared and establish a schedule for inspections.
 - (3) On the day of clearance the RCO will report to Range Control for coordination and follow the clearance activities until they are completed.

2-6. Range Equipment and Targetry

- a. Range Control will supply safety paddles, flags, and standard targets for range usage. It is the unit's responsibility to supply the appropriate FMs and TMs for the equipment they will use on the range.
- b. On request and in support of special live fire missions, Range Control is able to provide wood frames for targets and paper targets.

c. Units are responsible for whatever incidental materials are necessary for range usage such as scorecards, flashlights, toilet paper, special targets, staple guns, staples, and trash bags/containers for range police.

d. The OIC is responsible for all equipment signed out from Range Control along with the equipment and facilities associated with the range. The unit must make arrangements to repair, replace, or pay for all damage or loss to range equipment and facilities in order to clear the installation.

e. Maps are available for issue at ITAM, Building 6201, Camp Bullis.

f. For scheduling questions about special requests, range operations, or availability of targetry or other material, contact Range Control, (210) 295-7510.

2-7. Range Modifications

a. Training on each facility will be IAW DA PAM 350-38, Standards in Weapons Training, and the applicable FMs for the authorized weapons, ammunition, or explosive.

b. The Training Area Manager, Training Chief, and FSH ASA Manager may authorize temporary modifications to a facility or its function. Units desiring to physically modify a facility (e.g. dig holes, build additional target pits, move target stands, etc) on a temporary basis must submit a memorandum outlining the proposed changes to Range Control NLT than 60 calendar days before the requested modification date and remove these modifications NLT 5 working days after the termination of the training event for which the modifications were requested. It is the requesting units' responsibility to coordinate with 502 MSG, Civil Engineering (CE) and Environmental for digging permits.

c. Because of Camp Bullis' history as an artillery range, there is a large quantity of UXO throughout Camp Bullis. As a result, digging/excavation in support of training is not authorized unless the unit conducts coordination and receives approval from Camp Bullis Operations and Training.

d. Units will submit a Range Operations special site request for all digging to be conducted during training to include 10-digit grid location, number of digging sites and expected width/depth of sites. Special site requests will be submitted through 502nd MSG CE, Environmental and ASA Range Officer NLT 60 days from the date of training. Caves and karst features can lie directly below the ground with little or no surface expression. 502nd MSG CE and Environmental should be notified anytime natural voids are encountered during digging activities.

e. Units damaging utilities while digging without a special site request will be liable for the cost of damages incurred.

f. All excavations must be filled and the terrain returned to its previous condition prior to a unit departing and receiving range inspector clearance.

2-8. Non-Standard Training

- a. Requests for use of ranges and TSs for non-standard events will be coordinated with Training Area Manager, Range Control, Range Safety Office, prior to submission for approval by the Chief of TES.
- b. Units must provide detailed training plans to Range Officer 60 days prior to execution date for evaluation and approval.

2-9. Bivouac on Range Facilities

- a. Units are not authorized to bivouac on range facilities.
- b. With prior coordination units may request to bivouac across Wilderness Road in designated TAs.
- c. Bivouacking units are required to maintain 24 hour two-way communications with Range Control on frequency FM 34.20 until released by Range Control. With Range Control concurrence, landline or commo through their parent unit will satisfy the monitoring requirement.

2-10. Aviation Operations

- a. Aircraft flying in support of activities on Camp Bullis or transitioning through the installation's airspace will comply with AR 95-1, Flight Regulations; FSH Regulation 95-1, Aviation General Provisions; Local and Federal Aviation Administration (FAA) flight rules, regulations and flight standardization; Camp Bullis Air Operations SOP, and this regulation.
- b. Refer to Camp Bullis Air Operations SOP prior to conducting any aviation activity at Camp Bullis.
- c. Units can use RFMSS to schedule air training operations.
- d. Tactical aircraft operations within Camp Bullis are conducted under visual flight rules (VFR) conditions.
- e. Tactical aircraft operations under instrument flight rules (IFR) conditions are prohibited.
- f. Landing zones must be surveyed IAW AR 95-1 prior to being used and approved by the Training Area Manager. Requests for establishment of additional landing zones are forwarded to the Training Area Manager NLT 45-days prior to requested date of use.
- g. Aircraft operating within the Camp Bullis TAs are required to contact Range Control whenever a flight occurs within the installation.
- h. There are no Air Traffic Control (ATC) facilities at Camp Bullis. Prior to entering the airspace over Camp Bullis, all aircraft will have functional radio equipment capable of transmitting and receiving on the primary air advisory/air control net, UHF 226.3 AM or on the ground control/alternate air control net FM 34.20. All aircraft will establish radio communication with Camp Bullis Range Control prior to entering Camp Bullis air

space and will maintain communications until after departing the Camp Bullis air space.

i. For parachute/Combat Assault Landing Strip (CALs) operations using fixed-wing aircraft, ground or air controller, or multi-ship helicopter operations, the aircraft(s) will establish and maintain the required communications with the activity ground or air controller (i.e. Drop Zone Safety Officer [DZSO]/Combat Control Team [CCT]/flight leader). In those cases, the ground controller or flight leader will have positive communications either on the Air or Ground Control Net with Range Control and all aircraft will monitor the air control net. Additionally, aircraft must communicate with the San Antonio International Airport Approach Control Tower.

j. All aircraft must contact Range Control hourly to update the aircraft's position and flight path.

k. Aircraft that lose communication with Range Control while in Camp Bullis airspace will immediately obtain a flight altitude of 2,100' mean sea level (MSL) and attempt to re-establish radio communications either directly or through another aircraft. If communications cannot be re-established, aircraft will maintain an altitude of 2100' MSL and fly the most direct route to an LZ and land. While en route to the LZ, all aircraft will avoid the Impact Area, Hall drop zone (DZ), the CALs, and the flight routes into and out of the DZ and CALs. Once at the LZ, one crew member must contact Range Control and advise them of the communications problem, to prevent the activation of crash/rescue operations.

l. Units that are planning aviation operations that require use of a TA are required to submit the requirements through RFMSS. Flight approval and coordination will be made prior to mission date from Range Scheduling, (210) 295-7616/7686.

m. Nap-of-the-earth (NOE) training routes to be used at Camp Bullis must be identified and hazards plotted in coordination with Range Control.

n. Units conducting training on Unmanned Aerial Vehicle (UAV) platforms, Unmanned Aerial Surveillance (UAS) platforms, or incorporating this training into other collective task training events, are required to follow the same general guidance applicable to aviation crew training and aviation operations. All UAV/UAS training/operations on Camp Bullis must be coordinated with and approved by the Training Area Manager.

(1) Commanders will comply with the guidance found in AR 95-1, FSH 95-1, and Camp Bullis Air Operations SOP.

(2) Aircraft operator's manuals and checklists are the primary references governing the operation of specific aircraft. Appropriate aviation technical manuals (ATMs), FMs, TMs, and TCs will be used as required.

2-11. Combat Assault Landing Strip (CALs)

a. The crash fire truck will be operational and in position at the CALs prior to and during the conduct of fixed wing operations. Unit must coordinate with appropriate agencies at Randolph AFB, (210) 652-6915/DSN 487-2504 or (210) 625-4616, for crash fire truck support.

b. There is no lighting equipment available for this site. Units must furnish their own lighting equipment during limited visibility operations.

c. The CALS has one (1) runway. The runway is 3,600 feet (ft) long and 75 ft. wide with 300-ft. overruns at each end. CALS has attached parking area that can accommodate seven (7) C-130 tactical airlift aircraft.

d. Runway weight limitation is 140,000 pounds (lbs.) for single aircraft. The surface is compressed gravel. CCT must be present and inspect runway and taxiways before and after aircraft landing and give a serviceability update to Range Control.

e. The CALS is a special use only facility. The runway is closed except during tactical exercises and projects involving C-130 type aircraft.

f. Notice to airmen is unit responsibility.

g. The CALS is off-limits to all vehicles.

h. Tactical fighting positions (vehicle and individual) will not be constructed on the CALS or on adjacent berms.

2-12. Airborne Operations

a. There are four (4) DZ on Camp Bullis. DZs Turkey and Cougar are for equipment drops only. The remaining two, DZ Hall and DZ Buck, are designated for personnel drops and equipment drops.

b. Scheduled jumps will be coordinated with the Operations and Training section at Camp Bullis.

c. DZ descriptions:

(1) Turkey DZ is located in the far northwest of Camp Bullis in TA 1B, within 500m of Cougar DZ. The DZ is 47.5 acres and is used for equipment drops and slingload operations. The terrain is open, with light grass and a sandy base surrounded by trees.

(2) Cougar DZ is located in the far northwest of Camp Bullis in TA 1A, within 500m of Turkey DZ. The DZ is 66.6 acres and is used for equipment drops and slingload operations. The terrain is open, with light grass and a sandy base surrounded by trees.

(3) Buck DZ is co-located with the CALS in TA 2C on the north end of Camp Bullis and is used for equipment drops and High Altitude, Low Opening (HALO) and High Altitude, High Opening (HAHO) operations. The DZ 14.4 acres with flat terrain that varies between grass and the compacted gravel of the CALS.

(4) Hall DZ is located in the central section of northern Camp Bullis, east of Malabang Trail in TA 5C and is used for equipment and personnel drops. It is 400 acres and the terrain is very open and slightly undulating. The DZ is grass covered, sand based, and surrounded by trees.

d. Range Control will ensure that all non-aligned aircraft will be cleared off the DZ ten (10) minutes prior to drop time and will notify the Troop Medical Clinic and medical

evacuation (MEDEVAC) support of all personnel drops. Range Control will also notify Brooke Army Medical Center (BAMC) when drops of 100 personnel or more are scheduled:

e. Unit responsibilities:

(1) Ensure all personnel are familiar with and adhere to all requirements covered in this regulation and the Camp Bullis Air Operations SOP.

(2) FM communications will be established with Range Control one (1) hour prior to the first scheduled drop time.

(3) Coordinate with USAF for CCT when conducting Computed Air Release Point (CARP) drops.

(4) Have a current DZ Survey on-site during all airborne operations. Units may coordinate with USAF units to update DZ Surveys per Air Force Instruction 13-217.

(5) The airborne commander designates the key personnel for each airborne operation. These key personnel are the Primary Jumpmaster (JM), Assistant Jumpmasters (AJMs), Departure Airfield Control Officer (DACO), Drop Zone Support Team Leader (DZSTL), DZSO, Malfunction Officer (MO), and safety personnel.

(6) Each aircraft has designated JM, AJM, and safety personnel. The airborne commander gives the designated JM command authority over, and responsibility for, all personnel aboard jump aircraft.

(7) The DACO is located at the departure airfield and has coordination responsibility with the aircrew for the loading of personnel, equipment, and supplies into the aircraft. Also, the DACO provides the JM with changes to station time and the overall operational plan, current DZ weather, airfield crossing procedures, and the aircraft parking plan.

(8) Each DZ has a DZSO or DZSTL. The DZSO or DZSTL is responsible for the DZSO party and has command authority over the actions and safety of all personnel on the DZ.

(9) All appointed key personnel meet the standards described in FM 3-21.220, Chapter 7-2.

2-13. Rappel Operations

a. All Rappel Operations must be scheduled through RFMSS by utilizing the following website: <https://rfmss.belvoir.army.mil>.

b. Rappelling will be conducted only in areas that have been certified and inspected by the FSH ASA Range Safety Officer. There are currently three (3) areas for rappelling: Rappel Towers TA-08 and TA-17 and Rappel Cliff TA-11.

c. The Rappel Master/Rappel Safety Officer completes the rappelling checklist and conducts the safety briefing before training is conducted.

d. Introduction to rappelling is taught on a static tower. Using the building block approach to training, individuals systematically progress to more demanding platforms.

- e. Training on the tower is postponed when wet or slippery.
- f. Units desiring to use civilian rappelling equipment will submit an exception to policy to the Range Operations NLT 30 days prior to use day.
- g. Personnel required to conduct training:
 - (1) Rappel Master – The Rappel Master is responsible for rappeller safety, the serviceability of all equipment (installation, unit, and personal property), and the personal supervision of rappelling operations.
 - (2) Rappel Safety Officer – The Rappel Safety Officer services as the OIC during all rappel operations. Holding the rank of SFC (E-7) or above, he is trained on applicable Rappel Master tasks and is certified by his commander to serve in this position. Extensive training in rappel operations and risk management, or graduation from one of the following courses are Rappel Safety Officer requirements:
 - i. Rappel Master Course
 - ii. Air-Assault Course
 - iii. Range Course
 - iv. Basic Military Mountaineering Course (summer or winter)

The Rappel Safety Officer is responsible for the overall safety of all rappellers and ensures that all safety precautions are followed.

(3) Rapid Lane NCO – The rappel lane NCO is a commander-appointed corporal or above who is trained in the safe and proper execution of rappelling operations. Each tower rappel lane must have a qualified rappel lane NCO to supervise lane operations. Safety is the rappel lane NCO's number one priority. He must ensure proper safety procedures are followed, proper hookup once directed to a rope station, issues commands, and maintains eye contact with the rappeller at all times.

(4) Belay Safety – The Belay Safety must be range or air-assault qualified. He ensures belay personnel are performing their duties properly. Rappel training requires one (1) Belay Safety for each two (2) rappel stations. The Belay Safety must possess the same qualifications as a rappel lane NCO.

(5) Rappeller – Individuals participating in rappel training must have a general knowledge of rappelling operations before start of training. The requirements are listed on Training Circular (TC) 21-24-9 January 2008, Pages 1-3 and 1-4.

(6) Belayer – Individuals must be trained to belay before conducting rappelling training. The Belayer assumes a position at the base of the lane about one pace away from the tower area. Ensures that the rappel rope is even with the ground during tower rappellers. Loosely holds the rappel rope with both hands to avoid interference with the rappeller while remaining able to stop the rappeller should he fall. Watches the rappeller at all times, and maintains constant voice or visual contact. Wears a helmet to prevent injuries from falling debris.

(7) Medic – there must be at least one MOS qualified Medic, or civilian Emergency Medical Technician (EMT) with current certification on file at Range Control,

on site at all times with a dedicated aid vehicle and complete aid bag and a strip map to the nearest medical facility.

h. All units requesting rappelling sites must provide a rappel master certification/verification memorandum stating that the individual the commander is certifying has completed training and is qualified to perform the duties as assigned. Document will be provided to Range Control.

i. Unit supplies the following equipment:

(1) Rappelling ropes/sling ropes. 7/16 diameter, 3 strand, multi-filament twisted rope with a right hand lay. Ropes and sling ropes cannot have excess wear, cuts exceeding ½ of one strand, fraying, mildew, presence of petroleum products or any disruption in the strands of the right hand lay. Rope must be of sufficient length to reach the height of the tower with an additional 10 ft. on the ground.

(2) Heavy-duty work gloves. Gloves cannot have holes or tears in friction bearing areas, rips or tears in seams or the presence of any petroleum products.

(3) Snap links. Snap links must be checked for spring pressure, proper locking, rust, nicks and burrs, lateral gate movement and presence of gate pin.

2-14. Leaders Reaction Course and Obstacle Course

a. Prior to running the course an inspection of each obstacle will be conducted by the unit chain of command.

b. Negotiation of higher risk and more dangerous obstacles are monitored and supervised by an assistant instructor from the unit.

c. The OIC must do a risk assessment during inclement weather. Training on the course should be postponed when the obstacles are wet or slippery.

2-15. Combined Arms Collective Training Facility (CACTF)

a. Use of pyrotechnics requires Range Control permission.

b. All personnel conducting training involving Simunitions (CCMCK) will adhere to the requirements and guidelines set forth in Chapter 4, Para 4-6 of this regulation.

c. Smoke will not be used in confined areas with restricted egress (elevators shafts or small rooms with no windows) or inside of buildings.

d. Units will inspect all buildings prior to use for safety.

2-16. Live Fire Shoot House

a. The OIC and RSO must be familiar with and have on site, a copy of the Range SOP for this facility. Training Plan, Commander's Risk Assessment, and Commander's Validated Training Plan must be submitted to the Training Area Manager NLT 60 days prior to training event.

b. All soldiers involved in live fire exercises, must have successfully qualified, participated in reflexive fire training and discriminating fire training with the weapons to be used, IAW guidelines set forth in FM 3-22.9, CH. 7; FM 3-06.11, CH. 3; and TC 90-1, CH. 2 within 12 months prior to the date of the live fire exercise.

c. Firing during limited visibility conditions requires an individual weapons qualification and reflexive fire within one (1) year, in the same setting intended for training.

d. A walk through and dry fire of each scenario is mandatory prior to execution of all live fire exercises. It's understood participants will lose some realism during training and it's likely not all training objectives can be met at the Live Fire Facility. The bottom line is safety; only risk what you're ready to lose. By meeting or exceeding these requirements, participants should feel confident when it comes to doing the live fire exercise.

e. Prior to conducting live fire operations in the facility, individuals must be proficient in all individual and collective tasks associated with the training to be conducted. Training and certification is a unit level responsibility.

f. This facility requires an MOS qualified Medic (combat lifesaver [CLS] is authorized) with litter, stocked aid bag, and dedicated evacuation vehicle. Other agencies must have at a minimum current EMT-B, with comprehensive aid kit, litter and dedicated evacuation vehicle. Copy of current certification will be filed with Range Control.

g. Other agencies using this facility must meet this regulation and DA PAM 385-63.

2-17. Urban Assault Course (UAC)

The purpose of the UAC facility is to train a squad size element to enter a building, clear a room, improve grenadier gunnery and training, and validate subterranean tactics, techniques and procedures (TTPs).

a. The UAC consists of four (4) training stations that facilitate the crawl-walk-run training concept.

b. All training will be conducted IAW TC 90-1, May 2008, and the Range Control UAC SOP.

c. The four stations are:

(1) Station 1: Individual and Team Trainer – Team and squad leaders are trained on the basics of entering a building and clearing room in this three roomed, one building training station. (Blank and Simunitions) Only Blank ammunition authorized includes 5.56mm, smoke grenades, smoke pots, grenade simulators, artillery simulators.

(2) Station 2: Squad Trainer – Squads are trained on the methods used to clear multiple buildings while mastering tasks learned during Station 1 in this multi-structured training station. (Blank and Simunitions) Only Blank ammunition authorized includes 5.56mm, smoke grenades, smoke pots, grenade simulators, artillery simulators.

(3) Station 3: Grenadier Gunnery Trainer – M203 gunners are training in the mastery of urban area target engagement, tactical movement conduction and response for fire commands in this live fire training station. M203 grenade launcher TP rounds and 5.56 ball.

(4) Station 4: Underground Trainer – Squads are trained in subterranean operations in this underground sewer system training station. (Blank and Simunitions) Only Blank ammunition authorized includes 5.56mm, smoke grenades, smoke pots, grenade simulators, artillery simulators. All ammunition will be used outside the sewer system.

d. Medical Requirements. As a minimum, units must provide a CLS with an aid bag, litter, designated tactical vehicle, and driver to serve as the MEDEVAC vehicle.

2-18. Confidence Obstacle Course (CFOC)

The CFOC challenges Soldiers' strength, endurance, balance, and mobility while instilling self-confidence and promoting teamwork. The CFOC consists of obstacles from all groups represented in FM 21-20 and TC 3-22.20.

- a. OIC/RSO will inspect the obstacles before any individual negotiates the course.
- b. Training should stop if obstacles are wet or slippery.
- c. OIC/RSO position NCOs at each confidence obstacle to ensure proper negotiation and Soldier safety.
- d. Trainers will not make obstacles more difficult by shaking ropes, rolling logs, etc.
- e. Units will establish water points on the course as needed.
- f. The breakdown of the obstacles by groups is as follows:
 - (1) Red Group: Weaver, Island Hopper, Balancing Logs, Reverse Climb, and Belly Buster.
 - (2) White Group: Tarzan, Easy Balancer, Low Belly Over, Tough Nut, Inverted Rope Decent, and Belly Crawl.
 - (3) Blue Group: Swing, stop, and Jump; Wall, High Step-Over, and Six Vaults.
 - (4) Black Group: Inclining Wall, Skyscraper, Confidence Climb, and Tough One.
 - (5) Balancing Group: Logs and climb ropes.
- g. Medical Requirements. As a minimum, units must provide a CLS with an aid bag, litter, designated tactical vehicle, and driver to serve as the MEDEVAC vehicle.
- h. Units must turn-in a Composite Risk Management worksheet for training NLT ten (10) days before scheduled training starts.

2-19. Reconfigurable Vehicle Tactical Training (RVTT) Course

a. The RVTT is a virtual close combat tactical trainer. It is comprised of four (4) reconfigurable HMMWV simulators which are networked together in a virtual training

environment. This facility is designed to provide crew, section, and platoons training in basic and advanced convoy operations.

b. Units are able to select from various scenarios within four (4) databases: Baghdad, Fallujah, Tikrit, and Afghanistan. Each scenario can be modified to fit the training requirements of the unit.

c. The RVTT can accommodate up to 20 individuals per scenario in four (4) HMMWV's (driver, vehicle commander, gunner, and two passengers in each vehicle). The system incorporates small arms and crew served weapons.

d. Units must provide all individuals body armor equipment and Kevlar in order to "train as you fight".

e. The RVTT staff can record training sessions for use in unit level AAR's.

f. For additional information, contact (210) 216-1484/0057.

2-20. Convoy Live Fire Range

a. This range is designated to allow units to train basic convoy operations, doctrine, tactics, techniques, and procedures. Convoys are combat operations. The A-Symmetrical battlefield requires that the strictest possible force protection measures be planned and executed for any move of any distance.

b. The OIC/RSO must be familiar with and have on-site a copy of the Range SOP for this facility. Training plan, Commander's Risk Assessment, and Commander's Validated Training Plan must be submitted to the Training Area Manager NLT 30 days prior to training event.

c. All soldiers involved in live fire exercises must have successfully qualified, participated in reflexive fire training, and discriminating fire training with the weapons to be used. IAW guidelines set forth in FM55-30, Handbook 04-24 USSOCOM Combat Convoy, and Handbook 04-27, Convoy Leader Training.

d. Firing during limited visibility conditions requires an individual weapons qualification and reflexive fire within one (1) year, in the same setting intended for training.

e. A walk through and dry fire of each scenario is mandatory prior to execution of all live fire exercises.

f. Prior to conducting live fire operations in the facility, individuals must be proficient in all individual and collective tasks associated with the training to be conducted. Training and certification is a unit level responsibility.

g. This facility requires an MOS qualified medic (CLS is authorized) with litter, stocked aid bag, and dedicated evacuation vehicle.

h. Using units will develop a detailed written plan which will be submitted to the Range Officer, located in Building 6110, prior to training. See Appendix H for an example of this maneuver plan.

Chapter 3 Ammunition

3-1. Guidance

Ammunition and explosive requirements are based on AR 75-1, AR 385-63, AR 385-64, Technical Bulletin (TB) 9-1300-385, FM 5-250, and FMs for specific weapons, ammunition, and explosives.

3-2. Policy

a. All ammunition and explosives will be used for the purpose for which it was manufactured. Any attempt of unorthodox use or to purposely make it malfunction is prohibited.

b. The firing of improved conventional munitions (ICM) is prohibited.

c. The firing of tracer ammunition is limited based on weather and fire conditions.

d. The use of chemical smoke (CS) canisters is prohibited.

e. Ammunition will not be indiscriminately fired or dumped to preclude return to the ASP. Appendix E defines the AFOP/AAP.

f. Munitions containing phosphorous are not authorized.

g. Using units must keep ammunition and explosives properly packaged. This practice is critical to safety and quality.

(1) Ammunition and explosives must remain packed until immediately prior to use. Unpack only the quantity expected to be immediately fired. Save all packing material until the exercise is complete for possible use in repack.

(2) Properly repack ammunition before transporting on motor vehicles, aircraft, or watercraft.

(3) It is especially important to replace safety devices before repacking; for example, electrical shunts on Hoffman devices and pads protecting primers on mortar ammunition.

(4) Ammunition which has misfired or has been classified as unserviceable must be indelibly marked and segregated from serviceable ammunition.

h. Blank and live ammunition will be stored and issued from separate locations. Soldiers will be cleared of all blank ammunition and blank adapters prior the issue of live ammunition.

i. Blank ammunition is not fired at personnel closer than five (5) meters.

j. Blank ammunition is not fired without a blank adapter.

k. Damaged, defective, or misfired ammunition will be kept at least 50 meters from all other ammunition, equipment, and personnel. It will be repackaged and turned back in to the ASP with appropriate turn-in documents and reports.

l. Defective ammunition will not be fired. The OIC/RSO will report defective ammunition to Range Control who will in turn notify the Range Safety Officer. Defective ammunition typically includes, but not limited to:

- (1) A significant percentage of fixed projectiles loose in their cartridge cases.
- (2) Fuzes that are loose or missing safety devices.
- (3) Safety and/or arming devices found in an armed position.
- (4) Ammunition showing serious deterioration, corrosion or defects in material or workmanship.

m. Ammunition and explosives shall be under positive unit control at all times. Ordnance will be guarded at all times on the installation except when stored within the confines of the ASP. This includes misfire or damaged ordnance.

3-3. Transporting

a. Explosives will be transported and handled under the direct supervision of competent and qualified personnel who are familiar with the applicable safety regulations. All applicable HazMat regulations and directives will be followed and adhered to. The load will never be left unattended and the vehicle will be operated with extreme care at least 5 miles per hour (mph) under the normal posted speed limit.

b. Vehicles involved in on post shipments of ammunition/explosives will have a driver and assistant driver, be properly marked, equipped with at least two (2) Class 10-BC rated portable fire extinguishers, and will not carry any other personnel. The vehicle will not be refueled while loaded except in an emergency situation. The vehicle will not be used for transportation of personnel and ammunition together.

c. Vehicles will be inspected to ensure they are able to pass DD Form 626 Motor Vehicle Inspection (Transporting Hazardous Material).

d. Proper cushioning or dunnage will be installed between the ammunition/explosives and the metal bed of the vehicle and explosives will be secured to prevent shifting.

e. Live and inert or training ammunition/explosives will not be mixed on the same vehicle. Blasting caps will be transported separately from other explosives. They may be secured in a closed metal container and carried in the cab of the vehicle.

f. White phosphorous ammunition will not be carried on the same vehicle as other ammunition. An attached trailer can be used.

g. If a fire occurs on a vehicle transporting ammunition/explosives:

(1) Stop away from any populated area and stop traffic in both directions. Warn vehicle drivers and all personnel to keep at least 1,600m for all ordnance.

(2) Inform emergency response personnel the cargo is explosive.

(3) If the fire involves only the engine, cab, chassis, or tires attempt to extinguish it with the fire extinguishers, water, or anything available. Do not attempt to extinguish burning explosives or ammunition. Once the fire spreads to the bed of the truck or the

cargo, stop fighting the fire and immediately evacuate to a distance of 1600m for all ordnance.

3-4. Field Storage

a. Field storage areas will be coordinated and scheduled through Range Control. The site will be expected to maintain two-way communications with Range Control as long as it is in operation.

b. Armed combat vehicles will not be parked at the end of a day's operation with explosives and/or ammunition on board. It will be off loaded unless special permission is requested from Range Control and all additional requirements for distance separation and security can be met to Range Control's satisfaction according to DA PAM 385-63.

c. Ammunition will always be under the positive control of unit personnel.

d. Damaged, defective, or misfire ammunition will be stored in a separate containers or designated storage location at least 50 meters from equipment, landing positions, other ammunition, fuel, and personnel. Damaged, defective, and misfire ammunition will be repackaged and returned to the ASP.

3-5. Safety

a. Ammunition stacks will be protected from the elements.

b. Unpackaged ammunition will be limited to the minimum number of rounds needed for efficient firing of the exercise.

c. Smoking is prohibited within 50 meters of firing pads, ammunition or ready storage sites, and weapons assembly sites. Furthermore, the possession of matches or any flame producing device while working with or transporting propellants or explosives is prohibited.

d. Ammunition storage or handling sites will not be within 100 ft. of troop concentrations.

e. At least one (1) fire extinguisher with a 1A or greater rating will be provided at each designated smoking area.

f. A "No Smoking" sign will be posted at each entrance to an ammunition storage area.

g. Ammunition placed on the ground will have a five ft. (minimum) area cleared of all combustible materials. Must have one (1) BC 10lb serviceable fire extinguisher available.

h. Vehicle refueling will be conducted at least 100 ft. from any ammunition location. Fuel service vehicles will be parked no closer than 250 ft. from any ammunition location or operation.

i. Vehicles will not be parked closer than 100 ft. from ammunition.

j. Empty boxes, dunnage, and combustible packing material will be separated from ammunition (minimum 25 ft.).

k. For emergency refuel, ammunition laden vehicles will not be refueled until the engine has been allowed to cool for at least 30 minutes.

l. Only non-ferrous or other non-sparking (i.e. bronze) tools or equipment will be used in conjunction with explosives. Safety tools are required when opening boxes for repairs.

m. Ammunition will not be stored in hutments.

3-6. Malfunctions

a. In the event of a weapon malfunction, the individual will apply immediate or remedial action to clear the stoppage IAW the appropriate FM's, TM's and TB's. If immediate action fails, the OIC/RSO will take appropriate actions to clear the weapon and pull it off the firing line.

b. IAW AR 75-1 Malfunctions are failure of an ammunition item to function as expected when fired or launched or explosive items that fail to function. Malfunctions include hangfires, misfires, duds, abnormal functioning, and premature functioning of explosive ammunition items under normal handling, maintenance, storage, transportation, and tactical deployment. Ammunition and explosives malfunctions are classified into four (4) classes: A, B, C, and X.

(1) Class A Malfunction – Results in death or lost-time injury.

(2) Class B Malfunction – Results in damage to major equipment that cannot be repaired at the unit level maintenance.

(3) Class C Malfunction – Involves any other performance incident not covered in Class A or B.

(4) Class X Malfunction – Involves any other non-performance incident (visual defects).

c. Class A and B Malfunctions must be reported immediately to Range Control. For Class C and X Malfunctions, Range Control must be informed of the situation and update as the situation is solved.

Chapter 4 Live Fire

4-1. General

a. Firing will not be permitted until communications have been established, proper medical coverage is on site, the OIC and RSO are present, the red range flag is flying, and all prescribed safety and firing requirements have been met.

b. Live-fire range facilities will have, as a minimum, one (1) OIC, one (1) RSO and proper medical support IAW DA PAM 385-63 on site during all live-fire events.

c. Range Control personnel will inspect the ranges before, during, and after occupation. The pre-inspection will ensure the range is in the proper state and the unit's questions are answered. The "during" inspection will ensure all established guidelines are being followed and the post inspection will be to clear the unit of responsibility of the range.

d. All static firing lines will be raked, sandbags uniformly positioned, and after the range inspection, all foxhole covers replaced. Target sheds, towers, and latrines will be swept and cleaned. Trash will be removed and disposed of by the unit.. Trash bags and toilet paper are a unit responsibility.

e. Target cloth, paisters, and paste for known distance (KD) targets will be supplied by Range Control.

f. Range Control provides standard targets for zero and qualification. Other type targets need to be coordinated with Range Control by providing the federal stock number (FSN), quantity desired, and training requirement.

g. The firing of tracer ammunition is limited based on weather and fire conditions. It must be authorized by Training Area Manager. Prior coordination will be made by the units by contacting Range Officer, (210) 295-7732 and Training Area Manager, (210) 295-7539.

4-2. Night Fire

a. Night Fire may be conducted on any range unless prohibited by Range Control. To do so, the following criteria must be met:

(1) Right and left limit markers must be marked with red lights and visible from the firing line.

(2) The range flagpole must be marked with a red light in addition to the scarlet streamer used for day firing.

(3) To ensure proper orientation of weapons the OIC/RSO may be required by Range Control to wear night vision goggles based on the type of training being conducted.

(4) If the required lighting is not currently on the range and the unit must install the necessary lighting (e.g. chemlight, flashlight), the unit must contact Range Control prior to going down range to install lights.

(5) Night fire and method of illumination on any range facility is by approval of the Range Officer.

(6) Pyrotechnics are not authorized to illuminate targets during night fire.

4-3. Weapons Malfunctions, Accidents, and Incidents

a. In all emergency situations the OIC/RSO will call an immediate cease-fire and notify Range Control at FM 34.20, UHF 226.3, or (210) 295-7510. Emergency situations include any vehicle/weapons accident, personnel injury regardless of how slight, and any weapons malfunctions.

b. When an accident or incident involving weapons or ammunition occurs, the weapon and ammunition involved will be suspended from use. The OIC/RSO will immediately notify Range Control who will in turn notify the Range Safety Office. All associated ammunition and weapons will be maintained intact and the site preserved until released by the Range Officer, FSH ASA Range Safety Officer, or by other technically qualified personnel.

c. When a weapon malfunction such as a jam or normal misfire occurs that does not result in damage or injury take action recommended in appropriate FMs/TMs. If "immediate action" procedures fail to correct the problem, that weapon will be set aside and Range Control notified of the malfunction.

d. If a hand grenade fails to function, the side of the range with the malfunction will be Check-Fired until cleared by EOD. A hand grenade malfunction on any other range facility will cause operations to come to an immediate cease-fire and all personnel will evacuate to 350 meters from the UXO location.

e. Required Reports. When reportable accidents, incidents, and injuries occur, the unit will immediately notify Range Control. The Camp Bullis Range Officer may require the unit to designate an investigating Officer. Unit Commanders will ensure that the incident is reported on the Camp Bullis Initial Incident Report form (Appendix F) and submit the completed document to Range Control NLT two (2) working days after the accident. Copies of all reports and investigations performed by the unit(s) involved will be provided to Range Control.

4-4. Medical Support for Training Units

a. In case of a medical emergency, units will contact Range Control, (210) 295-7510. Range Control will contact the 502nd Security Force Squadron (SFS) and Fire Department.

b. Medical support calls made to Range Control will provide:

- (1) Unit ID.
- (2) Radio frequency.
- (3) Call Sign.
- (4) Location/Grid of Emergency.

- (5) Patient Information (name, sex, age, injury, litter/ambulatory).
- (6) Special Equipment Needed.
- (7) Patients Status (Military or Civilian).
- (8) Terrain Features (Any features that may present a problem for Airlift).

c. On all live fire ranges, a CLS with a dedicated vehicle and CLS bag are required. An MOS qualified medic with an aid bag/litter and a dedicated vehicle/driver is required when conducting live fire training on the hand grenade and demolition ranges. The CLS or medic will have no other duties during the conduct of live fire ranges or training on all TAs and TSs. This individual may be switched with another CLS or medic so he/she can participate in training.

d. Units are responsible to provide Strip Map to the Camp Bullis Taylor Burk Medical Clinic.

e. Air MEDEVAC is available for "life, limb or eyesight" situations at all times through Range Control at FM 34.20, UHF 226.3, or (210) 295-7510.

f. Emergency medical evacuation to a local hospital capable of providing Advanced Trauma Life Support (ATLS) is provided by American Medical Response (AMR), Inc. AMR is within 15 minutes of Camp Bullis Medical Clinic. An emergency is defined as any training injury or illness that threatens life, limb or eyesight. AMR can be contacted through Range Control.

g. Radio calls for MEDEVAC have precedence over all other radio traffic. Once Range Control receives a call for aero medical evacuation, all units engaged in live firing will come to a cease-fire status until the MEDEVAC pickup is completed. Range Control will provide notification of a cease-fire imposed due to MEDEVAC operations and when units may resume hot status.

h. Units training at Camp Bullis will utilize the Taylor Burk Clinic, Building 5026, during duty hours for injuries and illness requiring non-emergency medical attention. The clinic is normally open from 0700 to 1530 M-F with sick call from 0700 to 0900. Times of operation may be adjusted during the summer based on availability of medical personnel. Time adjustments will be put out during the daily coordination meeting at Range Control.

i. When the clinic is not operational, the unit will transport personnel requiring non-emergency medical attention to the BAMC. The unit will notify Range Control BEFORE transport with the following information:

- (1) Name, grade, and unit of the requester.
- (2) Number of patients.
- (3) Nature of the injury.

4-5. Civilian/Individual Use Of Range Facilities

a. The requesting organization will comply with the requirements and procedures established in AR 385-63, this regulation and local SOPs.

b. Any requests submitted by outside organizations to the 502nd Air Base Wing Public Affairs Office, Operating Location Charlie, (210) 221-1099, to access the installation for use of ranges will be coordinated through Range Control, ASA Range Safety Officer, and the Staff Judge Advocate (SJA) (when required), and submitted for approval to the Joint Base Installation Commander.

c. A written agreement must be completed between the installation and the non-military, detailing all rights and responsibilities of each party, liabilities, procedures, and regulatory and procedural requirements. This agreement will be incorporated into the report of availability as required by AR 405-80.

d. A blanket waiver of liability (Appendix K) signed by each person will be submitted to Range Control.

e. Non-military organization must designate an OIC/RSO. Personnel designated as OIC/RSO will complete a pistol and rifle course approved by the National Rifle Association (NRA) or equivalent (For example the U.S. Pistol shooters Association). The FSH ASA Manager, based on input from the Range Control Officer, ASA Safety Officer, and the SJA (when needed) will determine the equivalency.

f. The Installation Range Control Officer will ensure that the designated OIC and RSO are briefed on their duties and responsibilities.

g. OIC/RSO will attend mandatory Camp Bullis Range Safety Brief.

h. All shooters must receive a safety brief and have conducted four (4) hours of pre-marksmanship instruction prior to firing the range.

i. An MOS Qualified medic, CLS or EMT must be on site during all firing. Certification must be provided to Range Control.

j. Ranges must have communication with the firing desk prior to opening the range. Motorola radios may be drawn from Range Control.

k. Target engagement will be from stationary positions. Exceptions to this MAY be granted on a case-by-case basis for police force or government agencies if the following guideline is met:

(1) A scenario, risk assessment and overlay of maneuver must be submitted covering all safety issues and engagement angles.

(2) The scenario and overlay must depict the locations of all personnel participating AND observing the event.

(3) It must also show angles of fire in relation to those positions.

l. Authorized times of firing will be from 0700-1600 M-F and on weekends only when Range Control is supporting other training events.

m. Firing will only take place during daylight hours.

n. Non-firing observer personnel may not exceed one (1) per shooter.

o. All users are responsible for providing their own materials, targets and ammunition.

- p. Range clearance will follow the standards set forth in Chapter 2-5 of this regulation.
- q. Range Control representatives have the authority to shut the range down.
- r. Range Control personnel are always allowed on the range.
- s. Organizations:
 - (1) Range facilities will not be scheduled for organizations with less than five (5) active firing members and a current dated roster will be maintained at Range Control.
 - (2) An OIC and RSO must be at least 21 years of age to be in charge of the range.

4-6. Simunitions

- a. Simunitions may be used as a force on force training multiplier under the following conditions:
 - (1) The unit must provide Range Control with a risk assessment and training scenario for the event.
 - (2) Distance X for the FX Simunitions round will be considered 75 meters on Camp Bullis and a standard direct fire cone surface danger zone (SDZ) will be used to determine the hazard area. If the munitions are to be used as a force on force trainer, then a circle with a radius of 75m extending from the firing area may be used in lieu of the cone.
 - (3) OIC, RSO and additional safety personnel must be unit certified in Simunitions training.
 - (4) The unit must conduct dry fire rehearsals prior to live execution.
 - (5) A CLS, with dedicated vehicle and aid bag, must be on site.
 - (6) The OIC will ensure that all personnel inside the SDZ wear an impact resistant facemask, safety goggles (if the mask does not provide eye protection), throat protection, solid groin protection (not padding), Kevlar and gloves.
- b. Simunitions will not be deliberately aimed at the head or groin.
- c. No engagements closer than five (5) meters will be allowed.
- d. The mixing of Simunitions and live munitions is not authorized.
- e. The RSO will ensure that the conversion kits are properly installed.
- f. Rules of engagement will be established and enforced by the OIC.
- g. Simunitions training will not be conducted in temperatures under 38 degrees.
- h. The OIC will follow all range opening and closing procedures, regardless of the training events location.
- i. Blank and live ammunition are authorized as long as separate ammunition issue points are used for each. Soldiers transitioning from one type of ammunition to another must be cleared by the RSO.

Chapter 5 Small Arms

5-1. General

a. This chapter describes policies specific to those ranges that are primarily for small arms, machine gun (7.62 caliber and below), and sub caliber zero, familiarization, field fire and qualification.

b. Personnel responsible for operating these ranges will be thoroughly familiar with this regulation. Ranges will be conducted IAW provisions of this regulation, pertinent Ars, applicable TMs, FMs, and other appropriate publications. All personnel when utilizing firing facilities will observe common sense and good judgment.

5-2. Specific Instructions for Small Arms and Machine Gun Ranges

a. The Multi-purpose Machinegun (MPMG) Range is scheduled for maintenance on the last Wednesday of each month by Range Control. Due to the location of the targets in the Impact Area, the Automated Field Fire (AFF) and the Basic 10/25 M Range C will also be closed until maintenance on the MPMG is complete. All three ranges will not be available for scheduling during these maintenance periods.

b. Prior to firing on a small arms range the OIC/RSO will report to Range Control to receive a user's brief.

c. The using unit's OIC and RSO are responsible for the safe operation of the range. The following safety briefings will be given to all personnel prior to firing.

(1) Soldiers will receive a safety orientation, applicable to the weapon being fired and firing procedures prior to each firing table.

(2) Soldiers will be informed of the danger of firing outside the SDZ and the CFA.

(3) Soldiers will only fire authorized weapons on the range.

(4) Soldiers will only utilize designated firing points.

(5) All weapons must be pointed in such a manner as to deter rounds landing outside the designated safety area.

(6) All personnel on the firing line will wear hearing and eye protection.

(7) A red range flag will be displayed while the range is in operation and a red flashing light during limited visibility operations.

(8) No one will move to or leave the firing line without the permission of the OIC or RSO.

(9) The OIC/RSO will clear all weapons from the firing line.

(10) The OIC and RSO will ensure the range is thoroughly policed. All trash and ammunition residue will be disposed of properly.

(11) The OIC and RSO will ensure there is no smoking or horseplay on the range.

d. Weapons Malfunction: When an individual experiences a weapons malfunction, immediate action should be applied IAW the TM. If immediate action fails to correct the malfunction, the unit needs to notify Range Control and conduct follow up actions.

e. Unsafe Acts: Any person observing an unsafe act while the range is operating will call "Cease-Fire". Firing will immediately cease until the unsafe act has been investigated and resolved. Unsafe acts observed when the range is cold will be brought to the immediate attention of the OIC or RSO.

f. Range guards

(1) Guards will be posted at the main entrance of the range. Guards will have communications with the OIC/RSO.

(2) Guards will be posted and briefed by the RSO on the following requirements:

(a) Allow only authorized personnel to enter the range at those locations designated by the OIC.

(b) Firing will be suspended in case of an emergency or when an unsafe condition exists.

(c) Guards will alert the OIC in the event of any hazardous situation including approaching aircraft.

(d) Range Control personnel will not be delayed.

5-3. Conducting Range Operations

Ensure that the following activities occur before, during and after each range to ensure smooth operation of the range:

a. BEFORE

(1) Soldiers are trained and understand what is to take place on the range.

(2) All required equipment is available.

(3) Ensure an MOS qualified medic or CLS with an aid bag, litter and a dedicated evacuation vehicle is on-site.

(4) OIC and RSO must know MEDEVAC procedures prior to range execution.

(5) Ensure the range is properly opened through Range Control.

(6) Check radios for proper communication with Range Control.

(7) Range must be inspected by a range control personnel before HOT TIME is approved by Range Control.

b. DURING

(1) Ensure range is operated IAW appropriate regulations, FM, TM and DA PAMs. SAFETY FIRST.

(2) Ensure all required safety personnel are present and aware of their responsibilities.

(3) Ensure all instructions and commands are understood by all personnel involved with the range.

(4) Ensure all personnel report equipment deficiencies and or equipment damage immediately upon identification.

(5) The unit must conduct hourly radio checks with Range Control. If communication fails, the range will be placed in a cease-fire until communication is re-established.

(6) Range Control is notified one (1) hour prior to completion of training or allocated training time to facilitate time to clear the range.

c. AFTER

(1) Ensure all weapons are cleared and accounted for.

(2) Police and account for all dunnage and ammunition.

(3) Police trash and dispose of it accordingly.

(4) Check accountability of all personnel, weapons and equipment.

(5) Call Range Control requesting a Range Inspector to inspect range and get cold time.

(6) Report to Range Control number of rounds fired by caliber, and number of personnel trained.

5-4. Range Fires

a. Anyone observing a fire on the Range Complex will immediately notify Range Control via FM 34.20, UHF 226.3, or (210) 295-7510.

b. Unit commanders will ensure that training units have all required firefighting equipment as outlined in the FSH ASA Range Safety Officer's Safety Brief and the Range Control SOPs.

c. Under no circumstances will units attempt to fight fires in the vicinity of a dedicated Impact Area.

d. Range Control will work closely with the ITAM to monitor and control new growth areas where ordnance is used that could potentially start range fires. They will monitor firebreaks around all areas necessary to support training in order to protect forestry and wildlife.

e. All controlled burning of wooded areas will be accomplished under the guidance of ITAM and 502nd MSG, CE and Environmental in coordination with Range Control. If the fire was reported by any means other than through Range Control, the fire

department will ensure range personnel are notified.

f. In the event a unit starts a fire, the OIC will immediately notify Range Control. Once notified, Range Control will:

(1) Units must attempt to extinguish the fire utilizing firefighting on-hand equipment (i.e. fire beaters, fire extinguishers).

(2) Notify the Camp Bullis Fire Department and immediately respond to the fire location to determine hazards involved.

(3) Coordinate and control safe entry and operation of the fire department any time entry to the Impact Area is required for fire fighting.

g. The fire department will respond to range fires, as circumstances require:

(1) Range Control personnel may assist the Fire Chief in planning routes and areas that may be used to control and fight the fire.

(3) If the fire is not in a hazardous area the fire department may fight the fire by whatever means they deem appropriate. Range Control personnel will monitor the situation in order to alert fire fighting personnel should the fire enter a hazardous area.

(4) The Fire Chief or his representative will determine when and by what means the fire will be fought and when the operation will be terminated.

Chapter 6 Grenades and Grenade Launchers

6-1. Hand Grenade Familiarization

- a. OIC/RSO will be familiar with the requirements outlined in FM 3-23.30, Grenades and Pyrotechnics.
- b. All personnel on the hand grenade ranges will wear helmets, eye protection, hearing protection, and body armor.
- c. Once the safety pin has been pulled the grenade will, on command, be thrown. Do not attempt to reinsert the safety pin or tape the handle.
- d. All personnel not actively throwing grenades will be in the bunkers while grenades are thrown.
- e. A road guard will be posted at the entrance to the range.
- f. Live grenades are only issued just prior to familiarization.
- g. Prior to throwing, OIC/RSO will inspect all pits for safety hazards.
- h. Gloves or ponchos are not worn during live grenade training.
- i. During practice training, personnel will be instructed on the proper procedures and actions to be taken in the event of an accidental drop or short throw of a live grenade.
- j. All personnel must have completed hand grenade qualification within six (6) months and will throw a practice grenade in refresher prior to going to the live bay.
- k. Should a dud occur, the firing unit will cease training and immediately contact Range Control. Firing units record the exact time the dud occurs and report the elapsed time to the EOD Team upon their arrival.
- l. Ammunition lots with a high dud rate or that appear to have been tampered with is reported to Range Control and all throwing is suspended until ammunition has been cleared.
- m. At the completion of firing, an entry is made on Range Clearance Sheet indicating the number of duds experienced.
- n. Do not remove or use grenades found upside down in their packing containers.
- o. Grenades will not be modified in any way (tape, wire, etc.)
- p. Grenades will not be attached to clothing or equipment by the pull ring.
- q. The OIC/RSO will not force anyone to throw grenades and will only allow those personnel qualified to throw as outlined in FM 3-23.30.
- r. Bays 1, 2, & 3 only authorized for Claymores.

6-2. Grenade Launchers

- a. The M203 requires a minimum distance of 100 meters between the Impact Area and the firing line for training practice (TP) ammunition.
- b. 40mm TP ammunition will be cleared from the range when training is completed IAW TB 9-1310-251-10.
- c. Firing with the 40mm Grenade Launcher, M203, is discontinued when grounds winds are in excess of 30 mph.

Chapter 7 Chemical Agents and Smokes

7-1. Chemical, Biological, Radiological, Nuclear (CBRN) Training

- a. The use of Riot Control agents are not authorized for use in the Camp Bullis TAs.
- b. CS capsules are the only authorized agent for used in the CBRN chamber.
- c. CS grenades will not be employed on Camp Bullis.
- d. Only MOS qualified or school trained personnel are allowed to operate the CS Chamber. The OIC must be a SSG (E-6) or above. A minimum of one (1) assistant instructor is required to operate the chamber.
- e. OIC must have a 74A or 54B MOS, or be a graduate of an accredited CBRN Defense Course IAW AR 350-1, Chapter 4-13.
- f. Unit will have at least a qualified CLS on-site.
- g. Ensure all participants' protective masks are checked for proper fit and seal prior to the beginning of chamber practice.
- h. The OIC must ensure that all participants' medical records are screened prior to exposure to CS.
- i. Wearing of contact lenses is prohibited during CS chamber exercises.
- j. Ensure there is an adequate supply of water on hand to reduce heat-related injuries and to be used for decontamination.

7-2. Smoke Operations

- a. Smoke generators may only be used with prior approval from Range Control. A special site request for use of the smoke generators must be received at Range Control NLT 30 days prior to use. Request will include a 1:50,000 overlay and date/time frame the unit will employ the generator. Smoke will be employed only under the supervision of qualified CBRN personnel as defined by AR 350-1, Chapter 4-13.
- b. Anytime smoke is used on or crosses an un-surfaced road, the using unit will provide road guards and/or temporary barriers (if approved by Range Control) at a distance of not less than 500 meters on each side of the site. Smoke grenades may only be used in designated pyrotechnic pits.
- c. All expended smoke canisters and residue will be policed and returned to the ASP.
- d. All personnel must wear protective mask:
 - (1) Before and during any exposure to a concentration of smoke produced by M8 white smoke grenades, smoke pots (HC), or metallic powder obscurants.
 - (2) When passing through or operating in dense smoke (visibility less than 50 meters), such as smoke blankets.

(3) When operating or passing through a smoke haze (visibility greater than 50 meters) and the duration of exposure will exceed four (4) hours.

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

(5) While operating a smoke generator.

e. Red smoke is only authorized for actual emergency situations and will not be used to simulate a training emergency.

Chapter 8 Heavy Demo Range

8-1. General

- a. Requests for targetry will be coordinated with Range Control.
- b. Range Control will be notified ten (10) minutes prior to any single, multiple, or combined detonation and again immediately after detonation.
- c. Ensure an MOS qualified medic with an aid bag, litter, and a dedicated evacuation vehicle is on-site.
- d. Maximum charge will not exceed 12lbs C4.

8-2. Safety

- a. Safety procedures used in demolition training will be IAW those outlined in FM 5-250.
- b. All personnel must wear protective gear.
- c. Detonation points must be located a minimum of 300 meters down range from unsheltered personnel.
- d. Non-electric charges are prepared a minimum distance of 15 meters from other explosive devices.
- e. The burn time of fuses is tested prior to use.
- f. All charges must be dual-primed.
- g. Charges are primed just prior to use at the demolition site. Blasting caps and charges are carried separately to the priming site. Primed charges are placed, not thrown, into the demolition pits.
- h. The detonating source will be secured by lock and key and in possession of the person priming the charge. When using a portable power source the blasting machine or its activating device is also in the possession of the person doing the priming.
- i. Improvised methods of exploding blasting caps are not allowed.
- j. General Safety Guidelines.
 - (1) Personnel not actually engaged in the firing operation remain in the protective bunker.
 - (2) The detonation area must be free of large pebbles, rocks, metal fragments, or similar objects for a radius of 30 meters around the charge.
 - (3) Responsibility for preparing, placing, or firing of charges will not be divided. One individual will be responsible for the supervision of all phases of the demolition mission.
 - (4) Do not use blasting caps underground.
 - (5) Ensure all personnel are accounted for prior to detonating a charge.

(6) Give "FIRE IN THE HOLE" warning three (3) times prior to initiating demolitions.

(7) The use of any explosive for other than its intended purpose is not allowed and the Range Officer must approve training involving field expedient demolitions or improvised explosive devices.

(8) All demolition-training operations will be discontinued during or on the approach of an electrical storm.

(9) Commercial fireworks will not be handled, stored, or used in any way on Camp Bullis.

(10) All cratering charges will be dual primed with detonating cord.

(11) All personnel will wear protective helmets and hearing protection in addition to observing safe distances FM 5-250 Tables 6-2 and 6-3 and DA PAM 385-63, Table 17-2.

(12) When firing shaped charges, personnel will be at least 300 meters from the detonation and in defilade or at least 100 meters from the detonation in a missile proof shelter.

(13) When firing Bangalore torpedoes, personnel will evacuate at least 500 meters from the point of detonation, 200 meters if a defilade position is available, or 100 meters if in a missile proof shelter.

(14) For missile proof shelters, units may construct field expedient bunkers, bring ballistic box shelters, or use military vehicles such as the family of armored personnel carriers (APCs). Range Control must be advised in advance and approve the shelter or vehicle prior to actual use.

(15) Safe distances for bare charges and charges on targets are shown in FM 5-250 Tables 6-2 and 6-3 and DA PAM 385-63, Table 17-2. A general guide for surface charge evacuation distance (SCED) is 300m if the weight is less than 27lbs.

(16) It is a unit responsibility to ensure that all explosive charges, simulators, and pyrotechnics used during their training are properly detonated. All emplacements including misfires and UXO will be blown in place prior to the unit clearing the area.

c. Non-Electric.

(1) Never store blasting caps with explosives or carry them loose.

(2) Use only M2 crimpers for all crimping operations.

d. Electric.

(1) Do not remove short-circuiting shunt or un-shunt the lead wires unless testing or connecting the cap.

(2) Electrically initiated operations will not be performed in training within 200 meters of energized power transmission lines.

(3) Demolition TAs will be controlled to prevent entry of portable transmitting equipment within five (5) meters minimum and in all instances in order to comply with distances shown in Table 17-6 of DA PAM 385-63.

8-3. Misfire Procedures

- a. Misfire procedures will be IAW FM 5-250 and appropriate weapons TM.
- b. Immediately notify Range Control of the misfire.
- c. Never leave the area of the misfire unsecured or attempt to move or disarm a misfire.
- d. Never abandon misfired explosives – they are the unit's responsibility. EOD will not respond to a misfire request. If the unit cannot adequately handle a misfire, they do not belong on the range complex.
- e. Notify Range Control when the misfire has been cleared.
- f. Non-Electric Misfires.
 - (1) After attempting to fire the charge, wait at least 30 minutes plus the time remaining on the secondary before investigating the problem.
 - (2) The Soldier placing the charge should be the one who checks it and corrects any problems.
 - (3) To clear above ground misfires, use a primed one-pound (1lb) charge placed next to the misfire. Do this for each misfired charge or charge separated from the firing circuit that contains a blasting cap. Do not move scattered charges containing blasting caps – blow them in place. Do the same for charges primed with detonating cord.
 - (4) For underground charges, carefully dig to within one ft. of the charge and place a primed two-pound (2lb) charge on top or to the side and detonate the new charge.
- g. Electric Misfires.
 - (1) Immediately attempt to fire twice more and if unsuccessful, use a secondary system.
 - (2) Check to ensure wire connections are tight, if loose – tighten and again attempt to fire the charge.
 - (3) Disconnect the blasting machine or power source and test the blasting circuit. If the circuit test is good, change blasting machines or power source and attempt to fire the charge.
 - (4) If a charge does not fire and only one initiation system is employed, disconnect the blasting machine, shunt the wires, and immediately investigate. When employing more than one electrical system or a combination electrical/non-electrical system, wait 30 minutes before inspecting.

(5) If you suspect the electrical cap is the problem, do not attempt to remove or handle it. Place a primed one-pound (1lb) charge next to the misfired charge and detonate the new charge.

h. Detonating Cord.

(1) If detonating cord fails to function, attach a new cap to the remaining cord and detonate the new cap. Treat branch lines in the same manner.

(2) If the detonating cord leading to the charge detonates but fails to explode the charge, do not investigate until all signs of burning have stopped. Wait 30 minutes if the charge is underground. Re-prime and attempt to detonate the charge.

(3) Scattered pieces of detonating cord that do not contain blasting caps may be collected and detonated together.

8-4. Maximum Charge (Max Chg)

a. Max Chg detonations must be separated by at least a 30 second interval with no more than three (3) allowed before a 15 minute wait is required.

b. Standard Max Chg allowed at Camp Bullis is 12lbs and is what may be detonated without special approval. Approval to increase Max Chg must be requested from the FSH ASA Manager and is contingent on unit training requirements, weather and the availability of an area capable of handling the size charge requested.

c. Max Chg will be reduced by 50% at dusk with exceptions being handled on a case-by-case basis by Range Control on the day of firing.

8-5. Explosives Firing Log and Explosive/Mine Firing Log

The OIC will be given an Explosives Firing Log and/or an Explosive/Mine Firing Log when signing for a demolition facility. Once the OIC has requested and received permission to go "HOT", he will control and log every shot fired on the Explosives Firing Log or the Explosive/Mine Firing Log. The completed form must be turned in to Range Control before the range facility will be cleared.

8-6. Training New Personnel

Requirements for training new personnel are as follows:

a. Fire all charges electrically with the exception of specific non-electric training instruction.

b. Fire charges untampered above the ground surface.

c. Assure that not more than five (5) trainees actually insert cap or primer in charges, supervised by one instructor.

8-7. Transportation and Temporary Range Storage

a. Vehicles transporting explosives and units using field storage sites will comply with guidelines outlined in Chapter 3.

b. Temporary range storage of explosives in the open will contain no more than 500 lbs per pile/stack and the distance between each pile/stack will be a minimum of 45 meters. Demolition material, dynamite, black powder, and detonators will each be placed in a separate pile/stack. Temporary range storage will include those steps necessary to ensure explosives are kept dry and protected. Dunnage and cover, as circumstances require, are unit responsibilities and stores will be guarded at all times. Further guidance will be IAW Chapter 3 of this regulation, AR 385-64, and FM 5-250.

c. Never mix live and dummy/training explosives together. This includes transportation, storage, demonstration, or training.

8-8. Demolition Site Clearance

a. Final clearance is dependent on proper completion and turn in of Explosive Firing Log and/or Explosive/Mine Firing Log and the Camp Bullis Range Acceptance/Clearance Checklist.

b. Partially expended explosives will not be removed from the site without permission from Range Control.

c. Scrap will not be removed from the site unless it has been certified as clear by EOD and a certification memo has been processed and approved through the FSH ASA Range Maintenance.

8-9. Simulators

a. Trip flares M48 and M49 used in training will be protected by barriers or guards to prevent personnel from approaching closer than two (2) meters to the flare emplacement.

b. Simulators:

(1) All personnel will follow the procedures in TM 9-1370-206-10 concerning safe use and handling of simulators.

(2) Approval of pyrotechnic operations does not relieve the unit commander of final responsibility for the safe use of any training aid.

(3) M80 simulators will not be held when detonated nor will M1 and M2 type fuse igniters be used to ignite the M80 fuse.

(4) Pyrotechnics are prohibited in the cantonment area at all times.

(5) At no time will personnel attempt to disarm or disassemble simulators.

c. Atomic Simulators M142:

(1) Requests to use atomic simulators will include 8 digit grid coordinates of the proposed detonation point.

(2) M142 firing procedures and precautions are contained in TM 9-1370-207-10.

d. Pyrotechnics are not allowed in the immediate vicinity of any bivouac site.

e. Prior to use of any pyrotechnics, the OIC must verify that the fire index restrictions are not in effect and must have approved pyrotechnic pits with Range Control and that wind condition and directions do not pose a potential threat or hazard to the surrounding area.

8-10. Explosives Ordnance Demolition (EOD)

a. EOD training at the installation will comply with the same rules as any other training unit.

b. EOD teams in mission support of Camp Bullis will conduct operations IAW appropriate EOD regulations, directives, and unit SOPs.

c. On arrival at the installation, EOD personnel will report to Range Control for an update on the situation and will be briefed on the following post requirements:

(1) Range Control will escort the EOD team to the site. Range Control will provide area security and radio communications link to the Firing Desk.

(2) The EOD OIC/Non-Commissioned Officer-in-Charge (NCOIC) will fill out an inventory of the type and number of items destroyed. The list will be given to Range Control prior to leaving the installation or as soon as possible after the mission is complete.

(3) All other procedures will be normal SOP for EOD operations and/or coordinated as required with Range Control.

(4) No treatment or disposal is authorized unless approved by 502nd MSG, Environmental.

(5) All handling and training will be IAW the Military Munitions Rule.

(6) EOD will provide 502nd MSG, CE and Environmental their training inventory for all Class H munitions.

Chapter 9 LASER Range Operations

9-1. General

a. All LASER training (excluding Multiple Integrated Laser Engagement System [MILES] training) on Camp Bullis will be IAW AR 385-63, TB MED 524, AR 11-9, or appropriate LASER equipment manuals.

b. The OIC/RSO will be thoroughly familiar with and comply with all of these directives before operating or supervising the operation of LASER devices on Camp Bullis.

c. Request to conduct LASER training on Camp Bullis must be coordinated with the Training Area Manager. Risk assessment and training plan must be submitted for review and approval 120 days prior to execution.

Chapter 10 Integrated Training Area Management (ITAM)

10-1. General.

a. The intent of ITAM is to support sound natural resource management practices in order to provide stewardship of land assets while sustaining those assets to support training and other installation missions.

b. To limit adverse environmental damage from military training, this chapter defines the directives for implementation by all training units. All training units will plan, initiate, and carry out activities to minimize environmental damage without impairment to the training mission.

c. Violation of environmental protection requirements may result in administrative, civil and criminal punishment and fines.

10-2. Waterways

a. Operators of vehicles will prevent excessive destruction of vegetation along stream banks. Operation of vehicles shall be minimized as much as possible within 30 meters of stream banks.

b. Fording of streams is prohibited other than designated fording sites unless specifically approved by Range Control.

c. Camp Bullis is made up of Edwards Aquifer Contributing Zone and Recharge Zone. This formation is porous and is riddled with fractures, caverns and solution channels. It is this characteristic which allows water to be absorbed in the recharge zone; however, this feature also allows access for wastes to contaminate the aquifer. Although the recharge zone is located only in TAs 10 and 11, portions of TAs 1 and 2, the rest of Camp Bullis lies upstream of the recharge zone. It is, therefore, vital that all training be in strict accordance with the provisions outlined below, in order to prevent pollution of this valuable water resource.

10-3. Field Sanitation

a. If field food preparation facilities are established, soakage pits for utensil washing facility will be established IAW FM 17-10, Field Hygiene and Sanitation. Grease traps will be utilized, if possible.

b. Individuals will not dispose of food scraps in streams, rivers, or open bodies of water; solid waste will be collected and disposed of in approved containers for proper collection of trash, no free liquids will be disposed in this manner.

c. Soakage pits will not be located within 50 meters of a waterway.

10-4. Latrine Facilities

a. Portable latrines can be coordinated through the 502nd MSG, Supply Office, Building 5050, (210) 295-7603/8020/7701 (Appendix J).

- b. Field expedient latrines are not authorized.
- c. Portable latrines will not be placed within 50 meters of a stream, river, well, or open body of water.
- d. Portable latrines will not be placed in areas subject to flooding or in marshy areas.
- e. Established latrine facilities will be used on ranges.

10-5. Field Showers/Laundry/ Dining Facilities

- a. Shower facilities located within the cantonment area are available upon coordination with 502nd MSG, Supply Office, Building 5050, (210) 295-7603/8020/7701 (Appendix J).
- b. Use of field showers must be pre-approved by Range Control and will be established with soakage pits IAW FM 17-10.
- c. Will not be established in areas subject to flooding (water standing on surface) or marshy soils.
- d. Soakage pits will not be located within 50 meters of any waterway.
- e. Field laundries must be pre-approved by Range Control and coordinated with 502nd MSG, CE and Environmental.
- f. Field laundries will not be authorized in TAs 10 and 11 or in the flood plain of Cibolo Creek.
- g. Disposal of wastewater generated by field laundries will be disposed of IAW FM 17-10.
- h. Requests for gray water sites must be coordinated with Range Control and approved by the 502nd MSG, CE and Environmental. Sumps for disposal of gray water will be constructed IAW FM 17-10. Sumps shall be filled and area returned to original conditions prior to departure of unit. Grease shall be strained from the wash water and collected in trash bags and disposed of IAW Para 10-7 of this regulation. There are several sites with existing sumps. These should be utilized prior to considering construction of a new sump, which will require environmental documentation.
- i. Wastewater generated from mess operations in/around the cantonment area shall be collected and disposed of in the Camp Bullis sewer system.
- j. Field dining facilities will not be authorized in TAs 10 or 11, or in the flood plains within Camp Bullis.

10-6. Petroleum, Oil, Lubricant (POL) and Hazardous Waste (HW) Storage Facilities

- a. POL storage facilities will be constructed IAW FM 10-67-1 and TM 10-4930-229-12&P; the location of all POL storage facilities will be reported to Range Control and 502nd MSG, CE and Environmental Compliance, (210) 295-7889.

- b. POL will not be stored within 100 meters of any waterway.
- c. Facilities will be inspected by the training unit periodically during the operation to ensure no spillage and/or seepage has occurred.
- d. No POL products will be stored in areas with a slope greater than 1 to 20 ft.
- e. Any POL spills will be immediately reported to Range Control. The responsible activity will immediately attempt to stop and control the spill. Range control will contact the fire station and 502nd MSG, CE and Environmental Compliance for assistance in spill containment; free standing fuel recovery, and determination of remedial action requirements.
- f. Care must be taken in handling and storing POL products to prevent seepage into the ground. Waste POL products and HW will not be burned, dumped in trash containers, deposited at trash collection points, spread on the ground, or dumped in sewers, ditches or streams. Waste POL and HW will be segregated by type, placed in properly marked and labeled containers supplied by participating units, and deposited at the waste POL/HW collection point. Contact 502nd MSG, CE and Environmental Compliance, (210) 295-7889, for proper storage and disposal of POL/HW.

10-7. Solid Waste

- a. Solid waste will be collected and disposed of in an approved container. No free liquids to be disposed in solid waste containers.
- b. Remaining edible foodstuffs will be disposed of IAW appropriate regulations.
- c. Individuals will dispose of foodstuff containers (MRE's rations) in a designated receptacle. Unexpended MRE heaters must be treated as HW.
- d. Open burning of refuse is prohibited.
- e. Ordnance material or residue will not be disposed with refuse. Such material will be turned in and evacuated through channels to appropriate Class V points.

10-8. Camouflage

- a. Cutting of trees, bushes for use as camouflage is prohibited.
- b. Communication wire will not be attached to, or hung from any tree.
- c. Individuals will not intentionally destroy vegetation. Trees will not be cut for any reason.
- d. Individuals will not initiate any action that may disrupt, endanger, or cause damage to any degree, the habitat of any threatened and/or endangered species.

10-9. Vehicle Usage

- a. Vehicle operators will:
 - (1) Avoid areas that are highly susceptible to erosion, e.g., steep slopes.

- (2) Do not operate vehicles in marshy soil, except when necessary.
- (3) Avoid stream, river or lake banks, except for the purpose of stream crossing; stream fording should normally be done at identified fording sites.
- (4) Do not intentionally destroy vegetative cover on the ground other than that required for accomplishing the assigned mission or intentionally disturb soils through unnecessary vehicle operation.
- (5) Maintain maximum use of established tank trails and range roads for administrative moves and road marches; operators will not create new trails when existing trails are available for use.
 - b. Vehicle movement should minimize damage to ditches, drain-offs, fire lanes, fences.
 - c. Movement of vehicles will be generally limited to existing roads.
 - d. Vehicles, upon exiting roads, will exercise extreme care not to damage the shoulder of the road and water drain systems adjacent to the roads. All shoulder damage will be reported to Range Control.
 - e. Individuals will not intentionally destroy natural resources such as forest products, fish and wildlife, and specified wild species of flora and fauna.
 - f. Neutral and pivot steering of tracked vehicles will be avoided to the maximum extent possible.
 - g. All road signs, traffic restrictions, and established weight limits on roads and bridges will be observed. Route reconnaissance should be made prior to all moves, with particular emphasis on weight and width limitations. All road restrictions will be followed.

10-10. Archaeological and Historical Artifacts and Gravesites

- a. Bivouac and tactical positions will not be located within 100 meters of an archaeological or historical site.
- b. Should a cemetery be discovered during a training exercise, its exact location will be reported to Range Control, (210) 295-7510, and 502nd MSG, CE and Environmental, (210) 295-7889.
- c. Individuals will not disturb or remove any archeological artifacts.
- d. If potential cultural or archeological artifacts not previously inventoried are discovered in the course of training exercises, the newly discovered items will be preserved and protected pending a decision on final disposition by the 502nd MSG, CE and Environmental.

10-11. Environmental Considerations

See the FSH and Camp Bullis Integrated Natural Resources Management Plan (INRMP) for a complete listing of the environmental regulations.

a. Units are responsible for the transport and proper disposal of garbage and trash. Tires will be disposed of through 502nd MSG, CE and Natural Resources, Hazardous Material (HazMat) Section. Used POL, lead-acid batteries and antifreeze will be disposed of through DS Maintenance.

b. Rechargeable batteries will be disposed through 502nd MSG, CE and Natural Resources, HazMat Section, (210) 221-5099.

c. All units should use weapons cleaning solvents that **do not** contain 1,1,1 Trichloroethane and dispose of waste materials (patches, q-tips, etc) as regular trash. If the solvent contains 1,1,1 Trichloroethane the contaminated cleaning materials will be disposed of as a HW thorough 502nd MSG, CE and Natural Resources, HazMat Section, (210) 221-5099.

d. Vehicle and equipment washing is only allowed at the central wash point.

e. POL spills of one (1) gallon or more will be immediately reported to Range Control (FM 34.20 radio or 295-7510) who will in turn activate the installation's "Spill Response Plan". The reporting procedures are listed in Appendix D.

f. POL spills of less than one (1) gallon are the unit's responsibility to recover. Contaminated soils associated with minor spills or leakage will be collected (dug out a minimum of one [1] ft. where feasible) and removed for disposal by placing contaminated soil in a double-lined plastic bag. The unit shall then notify Range Control.

g. Relic hunting and the use of metal detectors is prohibited by law on the installation. Accidental discoveries of suspected historic artifacts will be immediately reported to Range Control who will pass the information on to 502nd MSG, Environmental.

h. All ammunition residue and casings shall be turned into the ASP.

i. If POL is stored in excess of 48 hours or the combined volume of POL products exceeds 500 gallons, a temporary berm (made of either soil placed one ft. high or double row of sandbags and lined with plastic sheeting at least 4-mil thick) will be established to contain any spillage that might occur. If fuel storage pods, bladders, etc., are to be located on the ground, a temporary berm will be constructed, regardless of the time and volume stored. POL products will not be dispensed within the cantonment area or tactical vehicle parking area, unless pre-approved by Range Control. If units desire to establish POL dispensing facilities in the near proximity to the cantonment area, they may utilize the berm area northwest of Building 6111 for ground vehicles, and the berm area northeast of the helipad for helicopters.

j. POL storage and dispensing facilities will not be authorized in TAs 10 or 11, or in the flood plain of Cibolo Creek. Additionally, POL products will not be stored within 200 meters of any streambed (intermittent or continuous flow), well-watering facility, ephemeral stream, or open body of water. All requests for fuel storage operations must be coordinated with Training Area Manager, Range Control, and the 502nd MSG, CE and Natural Resources, (210) 221-4842.

10-12. Endangered Species

Camp Bullis contains habitat supporting two (2) federally listed threatened and endangered avian species: The Golden-Cheeked Warbler and the Black-Capped Vireo. In addition, three (3) of the nine (9) listed Bexar County endangered karst invertebrates have been found on Camp Bullis in caves located throughout the installation. All threatened and endangered species are protected under the Endangered Species Act (ESA) of 1973, sections 1531 to 1544, title 16 United States Code (USC) 1531-1544. A copy of the ESA is available at 502nd MSG, CE and Environmental, Camp Bullis. Violators of the ESA are subject to both civil and criminal penalties. In order to conserve and protect all applicable state and federally listed species, the following requirements have been established:

a. Individuals will be responsible for knowing where all endangered species habitat areas are located relevant to their training. Current endangered species habitat maps may be obtained at Range Control or the ITAM, Building 6201, Camp Bullis.

b. Current seasonal training restrictions pertaining to federally endangered bird species habitat and active migratory bird species nests during the breeding and non-breeding season can be obtained at Range Control, ITAM, (210) 295-7824, or the 502nd MSG, CE and Environmental, (210) 295-7889. Restrictions apply annually in early March through mid-August and pertain to pyrotechnics, smoke, noise and vehicular activity.

10-13. Map Products

Camp Bullis map products can be requested through the military mapping agency. For additional information, contact ITAM Office, (210) 295-7875/7824. Site-specific map requests should be submitted at least two (2) weeks in advance.

Chapter 11 Installation Support Services

11-1. General

Camp Bullis is a sub-installation of FSH/JBSA and Installation Support Services are provided by the 502nd MSG. For the most part, services are limited to those that directly support units conducting training. Standard services not available at Camp Bullis can be attained at FSH. Service descriptions and coordination procedures/points-of-contact (POCs) are provided below.

11-2. HQ Camp Bullis, Building 5000

a. Coordination Assistance. HQ personnel can provide general information about Camp Bullis to using units and assist them with accomplishing required coordination for training, logistics, projects, etc.

b. Camp Bullis Vehicle Decals. The HQ Secretary issues vehicle decals for POV access into the TA. The decals are only available to personnel assigned to Camp Bullis or FSH, who require consistent access (staff, cadre, etc.). Personnel in a transient training status desiring temporary access to the TA may request a temporary pass from Range Control, Building 6110.

c. POCs:

- (1) Secretary, (210) 295-7611.
- (2) Operations Analyst, (210) 295-7795.
- (3) NCOIC, (210) 295-8119.
- (4) Executive Officer, (210) 295-7644.
- (5) Deputy Director for Installation Support, Camp Bullis, (210) 295-7508.

11-3. Camp Bullis Supply Section, Building 5050

a. Camp Bullis Supply issues and receives all buildings utilized by units in the cantonment area. They include transient billeting (hutments), latrines, general instruction buildings, administrative buildings, theater, chapel, and recreation center. Buildings are scheduled through RFMSS. After scheduling facilities in RFMSS, the unit POC is required to contact one of the Supply Technicians (11-3.d(2)) to schedule a date and time to issue the facilities, and to receive policies and procedures.

b. The office hours are 0700-1130 and 1230-1600 M-F. Weekend issue and turn-in is available on a case-by-case basis. Coordination for weekend issue/turn-in must be made at least one (1) week prior to requested date.

c. For policies and procedures regarding issue and turn-in of facilities, contact Camp Bullis Supply:

- (1) Supervisory Supply Technician, (210) 295-8020.
- (2) Supply Technician(s), (210) 295-7603/7911/7701.

11-4. Class I

a. Class I support is provided via prime vendor from the main dining facility, Buildings 5107, and Buildings 5105 and 5124 as supported training population determines. The Dining Facility Manager's office is located in Building 5106.

b. Class I support is coordinated through the 502nd Force Support Squadron, Building 4189, FSH. Units must provide their requirements via memorandum to:

502nd Force Support Squadron
Sustainment Services Flight
Food Services Operations
2380 Stanley Road, Ste. 20
Fort Sam Houston, TX 78234

c. POCs:

(1) Food Service Coordinator, Food Services Operations, Sustainment Services Flight, 502nd Force Support Squadron, FSH, (210) 221-3535, Fax (210) 808-1322.

(2) Dining Facility Manager, Building 5106, Camp Bullis, (210) 295-7691, Fax (210) 698-8325.

11-5. Class II

Class II items are not available at Camp Bullis. This includes cleaning supplies, toilet paper, etc., for billeting, latrines, classrooms, and admin buildings. Units are required to bring their own cleaning supplies. Units may make arrangements with Camp Bullis Supply to have their Class II items shipped to the Supply Warehouse, Building 5101.

11-6. Class III

a. Fuel. The fuel point is co-located with the 32nd Medical Brigade Motor Pool, Building 6104, and provides MOGAS and JP8 fuels.

(1) Hours of operation are 0630-1600 M-F. The fuel point is closed on weekends and holidays.

(2) The fuel pumps are operated with government issued fuel keys.

(3) Units without a fuel key will coordinate the use of a key from the 502nd Logistics Readiness Squadron, FSH, listed below.

b. Other Class III items (oil, lubricant, etc.) are not available at Camp Bullis. Units must bring their own supply.

c. POCs:

(1) Material Management Flight, 502nd Logistics Readiness Squadron, Building 2640, FSH (Fuel Keys), (210) 221-4575.

Camp Bullis REG 350-1 (17 May 2011)

(2) HAZMART, Material Management Flight, 502nd Logistics Readiness Squadron, Building 4055, FSH (other Class III), (210) 295-1036.

(3) Supervisor, 32nd Medical Brigade Motor Pool, Building 6104, Camp Bullis, (210) 295-7722.

11-7. Class IV

Class IV items are not available at Camp Bullis. Units are required to bring all construction/barrier materials they will utilize during training.

11-8. Class VI

Personal demand items are available for purchase at the Camp Bullis AAFES Shoppette, Building 5112, (210) 698-1183.

11-9. Class VIII

Units are required to bring their own medical supplies.

11-10. Telephone and Local Area Network (LAN) Support

a. Some classrooms and admin buildings have telephone service and some do not. Most buildings do not have LAN connectivity. Units should define their communication requirements during coordination. Requests for telephone services, land mobile radio transmission services, and information assurance services must be identified to the 502nd Communication Squadron Plans Flight (502 CS/CSX).

b. Units must coordinate authorization for DSN and long distance capabilities prior to arrival. Costs associated with establishing telephone/LAN services or additional lines are a unit responsibility. Any change to infrastructure must be approved by HQ Camp Bullis.

c. POCs:

(1) LAN: FSH Network Enterprise Center (NEC) Help Desk, (210) 221-4357.

(2) Telephone, Land Mobile Radio:

(a) Camp Bullis Telephone Control Officer, Building 5000, (210) 295-7644.

(b) 502nd Communications Squadron Plans Flight Customer Service Representative, (210) 808-0499.

11-11. Medical Clinic Support

a. The Camp Bullis Clinic, Building 5026, (210) 295-8491, provides medical support to units training at Camp Bullis. Services include sick call, treatment of acute illness or injury, and treatment of routine conditions.

- b. Units must coordinate their support requirements prior to arrival.
- c. The clinic operating hours are 0700-1600 M-F. The clinic is closed weekends and holidays.

11-12. Other Services

a. Routine and Emergency Services Orders. During duty hours, 0730-1600 M-F, contact the Supply Section, (210) 295-7603/8020/7701. After duty hours, holidays, and weekends contact Range Control, (210) 295-7510.

b. Mail. Camp Bullis does not have a mail clerk, and therefore, does not provide mail delivery or distribution services for units/individuals in a transient training status. Units should either plan to have all mail held at home station, or, if the unit has a mail clerk, they may coordinate to have the clerk pick-up mail at HQ Camp Bullis, Building 5000. POC is the HQ Secretary, (210) 295-7611.

c. Chaplain Services. Camp Bullis does not have an assigned chaplain. Units with an assigned chaplain may utilize the Camp Bullis Chapel, Building 5904, with prior coordination through Camp Bullis Supply. Chaplain support may be requested from the 502nd MSG Religious Services Office, (210) 221-2754/2755.

d. American Red Cross (ARC). Personnel requiring ARC assistance should contact the FSH ARC, Building 2650, (210) 221-3355.

e. Outdoor Recreation Center (ORC), Park and Softball Field. The use of the ORC (Hunting Lodge), Building 6215, the park, or the softball field can be coordinated with the ORC Staff, (210) 295-7577/7529.

f. Gym. The Camp Bullis Gym, Building 5031, (210) 295-7898, is furnished with various fitness machines, free weights, and shower facilities. Hours of operation are 0400-2000 M-F. The gym is closed on weekends and holidays.

Chapter 12 Safety

12-1. Safety and Risk Assessment

The unit Commander is the principal Training Officer and has overall safety responsibility for his unit. The following policies and procedures are established to permit the unit Commander maximum flexibility in planning, training, and realism while providing for a safe environment for personnel and equipment:

- a. Each firer has received at least four (4) hours of PMI prior to using the range.
- b. A cave safety briefing is provided to all personnel training on Camp Bullis. This briefing should stress that at no time is anyone to enter any cave for any reason.
- c. The OIC is responsible to the unit Commander and has overall responsibility for the safe and efficient operation of the range facility.
- d. The RSO will be a dedicated safety person and will be present during all live-fire operations.
- e. A LRSO must be assigned and on station during all LASER operations. His duties will include.
 - (1) Ensuring the unit conforms to the SDZ presented to Range Control.
 - (2) Ensure there are no specular hazards down range.
 - (3) Proper employment of LASERs on the facility, when approved.
- f. Additional Assistant Range Safety Officers (ARSO) may be appointed by the OIC to assist the RSO in managing safety on the firing line. The ARSO does not have to be a certified safety person. This will in no way relieve the OIC or RSO from their responsibilities.
- g. Any conflict between the unit OIC and the designated OIC which cannot be resolved will be immediately referred to Range Control who is the final authority. No firing will be allowed until all issues are resolved.
- h. Range Control personnel are authorized onto any range facility at any time. Guards will be so instructed and advised that admittance will be granted without passwords, special clearance, or delay. Range Control personnel are the only individuals who are not the responsibility of the OIC/RSO.
- i. Any Range Control representative may close a range facility for what is deemed to be the lack of safe and correct operation of the facility.
- j. Composite Risk Management: Unit Commanders will ensure that a risk assessment is performed and validated on DA Form 7566 IAW FM 5-19 on all operations their unit takes part in on Camp Bullis. A copy will be provided to Range Control NLT ten (10) days prior to the unit being allowed on the range complex and a copy must be on hand when signing for the range.
- k. The following are the designated risk mitigation acceptance authority levels for training on Camp Bullis and FSH:

(1) Low Risk. E-8 or equivalent and above in the unit's/organization's chain of command, and GS-11 and above.

(2) Moderate Risk. O-5 or equivalent in the unit's/organization's chain of command, Command Sergeants Major serving as NCO Academy Commandants, and GS-13 and above.

(3) High Risk. O-6 or equivalent in the unit's/organization's chain of command.

(4) Extremely High Risk. First General Officer or equivalent in the unit's/organization's chain of command. For units that fall under the U.S. Army Medical Command (MEDCOM), the Commander, MEDCOM is the signature authority. All extremely high risk training activities will include an explanation of the need for acceptance of an extremely high residual risk.

I. Whenever ranges are occupied, regardless of firing status, they will fly the red flag and maintain communications with Range Control. Direct communication is required during "HOT" status. If the unit is not in a firing status and their next higher HQ has established communications with Range Control direct communications thru that HQ satisfies the requirement. Units bivouacking on site will re-initiate radio contact with Range Control at 0700 (or prior to firing whichever comes first) every day they remain on the range complex. Units will maintain communications with Range Control at all times while on the range complex to include convoy movements. Communication will be continuously maintained each hour on the hour.

12-2. Training Accidents

a. In the event of a training accident/incident, individuals will take all necessary precautions and steps to reduce potential injury, loss, of life/limb, and/or damage to equipment. After providing required First Aid and/or medical evacuation, units will do everything possible to preserve the accident site.

b. Once the site is released by DoD Police, Camp Bullis Safety Officer will determine investigating requirements IAW DA PAM 385-63.

12-3. Unexploded Ordinance (UXO)

All personnel must be warned not to pick up ammunition, projectiles, flares, simulators, or any unidentified objects that may be found. All unexploded ammunition and unidentified objects should be considered UXO and extremely dangerous. If UXO is found and goes unreported, it may harm a Soldier or civilian. Although all UXO is hazardous, bombs, artillery and mortar shells have the added danger of possibly employing either proximity or timed fuses which when damaged, may TEMPORARILY cease to function. Vibrations of the ground or shifting of the round itself, may cause the fuse to begin functioning again, effectively creating a motion sensor or "time bomb" effect.

c. If UXO is found, a 10m perimeter should be marked off with engineer tape and the location should be reported at once to Range Control, (210) 295-7510. **Do not**

under any circumstances drive anything into the ground. The unit will evacuate all personnel at a distance of 350 meters from the UXO (See Appendix B).

d. A unit representative who knows the exact location of the UXO should remain at the site until a Range Control representative arrives. The unit representative will be released as soon as Range Control has positively identified the location.

e. The removal of any ammunition whether training or live, is strictly prohibited and punishable under law. The OIC/RSO must include information on UXO during their safety briefing to all personnel prior to utilizing any range facility on Camp Bullis (See Appendix B).

12-4. Inclement Weather/Weather Alerts and Warning

Range Control monitors the local weather and will issue SEVERE WEATHER WARNINGS to all units training on Camp Bullis as required. The decision to continue/discontinue training will be made by the OIC/RSO and the Camp Bullis Training Area Manager IAW the Camp Bullis Inclement Weather Policy. During tornado watches and other extreme weather warnings, ranges and other TA exercises will cease in order to secure support equipment and allow time for personnel to seek cover.

a. Electrical Storms and Lightning. Lightning dispersal areas must be designated on all ranges by the OIC/Safety Officer for use as shelters during lightning storms. When instructed to move to lightning dispersal areas, personnel will ground their weapons/helmets and don wet weather gear prior to squatting in the dispersal area. Dispersal areas will not be located near flagpoles, trees, or wires.

b. Tornadoes. If a tornado or funnel cloud is sighted, all personnel will immediately take shelter and contact Range Control. If shelter is unavailable, personnel will find the lowest accessible point (i.e. ditch, creek bed, or hole) and take cover. If in a vehicle, do not try to outrun the storm, instead, take cover immediately. If in a building, personnel will move away from windows and seek cover in an interior room or closet or under a desk or mattress.

c. Floods. Camp Bullis, including main roads, is susceptible to flash flooding. Military Police and Range Control will determine when to close and open roads during inclement weather. Units may not circumvent barriers due to safety precautions. Units will move to higher ground and avoid low-water crossing sites. If a unit is trapped, alternate egress routes may be requested from Range Control.

12-5. Heat Injuries

a. Hot weather casualties are preventable, but remain a significant health problem for the U.S. Army. Heat casualties can be minor (heat cramps) or major (heat exhaustion and stroke). Heat conditions are classified by color according to the Wet Bulb/Globe Temperature (WBGT) readings. Commanders, cadre, other responsible officers, and NCOs must be familiar with environmental conditions that influence the risk of hot weather casualties and injuries (such as temperature, wind, humidity, and ground conditions). Commanders must adapt training/physical activity and uniform

requirements to conform to the precautions for each heat condition. Units are required to provide WBGT equipment while training at Camp Bullis.

b. Range Control will transmit WBGT readings of 75 or higher over the Range Control Operations NET during hourly checks and updates when the category code changes. Because environmental factors are different at each location all units training at Camp Bullis will set-up and monitor WBGT kits when the ambient temperature is above 75 degrees IAW US Army Training and Doctrine Command (TRADOC) Regulation 350-29, dated 20 January 2010.

Table 12-1. Work/Rest/Water Consumption Guide (Extracted from GRA 05-08-012)

CRITERIA*		EASY WORK		MEDIUM WORK		HARD WORK		Unacclimatized Soldiers and Trainees
Heat Category	WBGT Index F	Work/Rest	Water Intake Qt/Hr	Work/Rest	Water Intake Qt/Hr	Work/Rest	Water Intake Qt/Hr	Guidance for Commanders and training NCO's.
White 1	78-81.9	NL	1/2	NL	3/4	40/20 min	3/4	
Green 2	82-84.9	NL	1/2	50/10 min	3/4	30/30 min	1	Use discretion in planning heavy exercises.
Yellow 3	85-87.9	NL	3/4	40/20 min	3/4	30/30 min	1	Suspend strenuous exercise during first 3 weeks of training. Training activities may be continued on a reduced scale after the second week of training. Avoid activities in direct sunlight.
Red 4	88-89.9	NL	3/4	30/30 min	3/4	20/40 min	1	Curtail strenuous exercise for all personnel with less than 12 weeks of hot weather training.
Black 5	90 and up	50/10 min	1	20/40 min	1	10/50 min	1	Physical training and strenuous exercise is suspended. Essential operational commitments not for training, where risk of heat casualties may be warranted, is excluded from suspension. Enforce water intake to minimize expected heat injuries.

- The work/rest time and fluid replacement volumes will sustain performance and hydration for at least 4 hours of work in the specific heat category. Individual water needs will vary +/- ¼ qt/hr.
- NL= no limit to work time per hour. Rest means minimal physical activity (sitting or standing) and should be accomplished in shade if possible.
- MOPP gear adds 10° F to WBGT Index.
- **CAUTION: Hourly fluid intake should not exceed 1 ½ quarts. Daily fluid intake should not exceed 12 quarts.**

EXAMPLES		
• Easy work	• Medium work	• Hard work
<ul style="list-style-type: none"> • Weapon Maintenance • Walking hard surface at 2.5 mph, <30 lb load • Manual of arms • Marksmanship training • Drill and ceremony 	<ul style="list-style-type: none"> • Walking loose sand at 2.5 mph, no load • Walking hard surface at 3.5 mph, <40 lb load • Calisthenics • Patrolling • Defense position construction • Field assaults 	<ul style="list-style-type: none"> • Walking loose sand at 2.5 mph, with load • Walking hard surface at 3.5 mph > 40 lb load

12-6. Cold Weather Injuries

Range Control will transmit wind chill readings when the temperature drops below 32°F over the Range Control Operations NET during hourly checks. Updates will be provided as conditions deteriorate. Commanders, cadre, other responsible officers, and NCOs must be familiar with environmental conditions (i.e. temperature, wind, humidity, and ground surface conditions) that influence the risk of cold weather casualties and cold injuries.

Table 12-2. Windchill Chart

WINDCHILL CHART																				
Measure the temperature and wind speed if possible; if not, estimate them. Enter the table at the closest 5°F interval along the top, and follow it down to the appropriate wind speed along the left side. The intersection gives the approximate equivalent chill temperature—that is, the temperature that would cause the same rate of cooling under calm conditions. Wind velocity can be caused by equipment and individual movement. Covering bare skin reduces the risk of cold injury.																				
		Temperature (°F)																		
		Calm	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45
Wind (mph)	5	36	31	25	19	13	7	1	-5	-11	-16	-22	-28	-34	-40	-46	-52	-57	-63	
	10	34	27	21	15	9	3	-4	-10	-16	-22	-28	-35	-41	-47	-53	-59	-66	-72	
	15	32	25	19	13	6	0	-7	-13	-19	-26	-32	-39	-45	-51	-58	-64	-71	-77	
	20	30	24	17	11	4	-2	-9	-15	-22	-29	-35	-42	-48	-55	-61	-68	-74	-81	
	25	29	23	16	9	3	-4	-11	-17	-24	-31	-37	-44	-51	-58	-64	-71	-78	-84	
	30	28	22	15	8	1	-5	-12	-19	-26	-33	-39	-46	-53	-60	-67	-73	-80	-87	
	35	28	21	14	7	0	-7	-14	-21	-27	-34	-41	-48	-55	-62	-69	-76	-82	-89	
	40	27	20	13	6	-1	-8	-15	-22	-29	-36	-43	-50	-57	-64	-71	-78	-84	-91	
	45	26	19	12	5	-2	-9	-16	-23	-30	-37	-44	-51	-58	-65	-72	-79	-86	-93	
	50	26	19	12	4	-3	-10	-17	-24	-31	-38	-45	-52	-60	-67	-74	-81	-88	-95	
	55	25	18	11	4	-3	-11	-18	-25	-32	-39	-46	-54	-61	-68	-75	-82	-89	-97	
	60	25	17	10	3	-4	-11	-19	-26	-33	-40	-48	-55	-62	-69	-76	-84	-91	-98	

Frostbite Times:	 Little Danger	 30 min	 10 min	 5 min
-------------------------	---	--	--	---

Windchill (°F) = 35.74 + 0.6215T - 35.75(V^{0.16}) + 0.4275T(V^{0.16})
 Where: T = air temperature (°F) and V = wind speed (mph)

Table 12-3. Prevention of Cold Injuries

PREVENTION OF COLD INJURIES DUE TO WINDCHILL			
When the windchill is—	And your training is—	You should be—	And extended breaks are—
CAT I +32 to +1°F	Stationary	Fully dressed	At the commander's discretion
	Physically active	Partially dressed	Not recommended
CAT II 0 to -5°F	Stationary	Fully dressed	Recommended
	Physically active	Partially dressed	Not recommended
CAT III -6 to -10°F	Stationary	Fully dressed	Recommended
	Physically active	Fully dressed	Not recommended
CAT IV Below -10°F	Discontinue outside training.		

DEFINITIONS	
Windchill	The cooling power of wind on exposed flesh expressed as an equivalent temperature under calm conditions.
Fully dressed	Wearing long underwear, field pants, overshoes, gloves or trigger finger mittens (when available), and a pile cap.
Partially dressed	Wearing gloves and a pile cap—no long underwear, field pants, or overshoes.
Extended breaks	A maximum of 20 minutes continuous training with interspersed 10-minute breaks to visit warming facilities and drink hot liquids.
Stationary activity	Maintaining a fixed position, such as bleacher instruction, basic rifle marksmanship, and ceremonies.

12-7. Lost/Missing Personnel

a. In the event an individual is lost or separated from their unit, the unit will immediately contact Range Control, (210) 295-7510. Range Control will put all live fire ranges in a CEASE-FIRE status until the individual is located. Units training at Camp Bullis will brief personnel on “Lost/Missing Personnel Procedures”. These briefs include:

(1) The establishment of well-defined boundaries. Boundaries will be pointed out on a map or other training aid such as a sand table.

(2) Establish an emergency azimuth. If lost, personnel should move along established emergency azimuth until reaching a major road/fire break. DO NOT CROSS the road, remain in place until a search vehicle arrives.

(3) Personnel should not cross fences. If they come upon a fence line look for signs of an impact area, STOP! DO NOT CROSS.

b. When individual is located, the unit must immediately notify Range Control, (210) 295-7510

c. Unit will follow-up with an incident report to Range Control.

12-8. Road Network, Tank Trails, and Vehicle Operations

a. The tank trail network must be used as much as possible for tactical convoys and is recommended as a primary route for travel wherever it exists.

b. All internal Impact Area roads and trails are considered off-limits and not part of the tank trail system.

c. Bridge weight classifications will be observed.

d. Vehicles are prohibited from operating within 50 ft. of buildings (unless in a designated parking space/unloading zone) or within 200 ft. of bivouac sites.

e. All dirt and mud on any hard top road, caused by a crossing, is cleared by the unit (or vehicle) making the crossing.

f. Sleeping directly in front of, behind or under any vehicle is prohibited. If sleeping in or on vehicles, then the engine, heater or other carbon monoxide producing equipment must be shut off. On combat vehicles all turret power systems must be shut down.

g. If equipped, troop safety straps are used when personnel are transported in the cargo bed of vehicles.

h. Vehicles may not move over any firing berm, target berm or protective berm.

i. Personnel will not be transported in engineer dump trucks unless an approved positive antidumping device is installed, and a means to ease boarding and off-loading is provided.

j. Wheeled Vehicles (Day):

- (1) Hard surfaced roads – as posted.
- (2) Improved trails – 25 mph.
- (3) Unimproved roads and trails – 20 mph.
- (4) Off road travel – 10 mph.
- (5) Passing troops or formations – 10 mph.

k. Track Vehicles (Day):

- (1) Improved trails -- 25 mph.
- (2) Unimproved roads and trails – 20 mph.
- (3) Off road travel – 10 mph.
- (4) Passing troops or formations – 10 mph.

l. Maximum speed limits for all vehicles utilizing blackout drive are:

Camp Bullis REG 350-1 (17 May 2011)

- (1) Improved trails – 15 mph.
- (2) Unimproved roads and trails -- 10 mph.
- (3) Off road travel – 5 mph.
- (4) Passing troops or formations – 5 mph.

m. Vehicle movement in the TA/Ts:

- (1) Commanders will ensure that vehicle operators comply with all appropriate TMs, TFs, TCs, and other applicable regulations.
- (2) The front and rear vehicles of a road march will have communications with each other and the unit will have communications with Range Control either directly or through their controlling organization.
- (3) All vehicles in or around bivouac sites or behind the firing line of ranges will utilize front and rear ground guides, ground guides will use a flashlight/chemlight during the hours of limited visibility.

n. Convoy Training Operations:

- (1) A strip map is turned into Range Control for approval NLT 21 days prior to start for each convoy operation conducted by a unit.
- (2) Strip maps are necessary for movement of more than three (3) wheeled or two (2) track vehicles. Vehicle convoys must not exceed ten (10) vehicles.
- (3) Road guards are posted to inform traffic of the operation when night convoy operations are conducted along a trail or other main dirt roads.
- (4) Units cannot utilize the trails for convoy operations without a Range Control-approved strip map. These areas are utilized by both wheeled and tracked vehicles (day and night) and must be carefully controlled by Range Control for fair use by all units.
- (5) Because all range roads and trails are also part of the firebreak system, they will not be blocked without Range Control permission. Approved barricades will be removed before the unit leaves the area. Range Control will notify the 502nd SFS and Fire Department of roads closed due to training, the planned duration of the closure, and when the roads are again serviceable.

12-9. Bicycling, Foot Marches, and Physical Training

- a. Bicycle traffic in the cantonment area is governed by the same requirements as vehicular traffic and is restricted to hard surfaced roads. Headphones or anything that impairs normal hearing will not be worn while riding bicycles. Bicycles are prohibited from entering the TA (past the gate at range control). Special events for bicycling in the TA may be coordinated through range control.
- b. Units may conduct road marches in the tactical TAs and other areas within the range complex. Road marches will have priority and right of way over vehicular traffic. They will be coordinated with Range Control a minimum of 21 days prior and be conducted in accordance with FM 21-18. All vehicle traffic approaching troops in

formation will slow to 10 mph. Maximum use should be made of tank trails and routes other than hard surfaced road.

(1) Road guards equipped with safety vests will be stationed in front, in the rear, and traffic sides of the column. Flashlights will be used from dusk 'til dawn.

(2) Units will maintain communications with Range Control at all times and call in the times for the start, check and end points.

(3) Requests to conduct road marches will include a strip map and be submitted to Scheduling for approval NLT 21 days prior to the scheduled march. The strip map will depict the desired route of march, check points, start times and estimated end times.

(4) Units will have a certified CLS with aid bag, MEDEVAC vehicle with driver.

(5) Units will provide a trail vehicle for straggler control.

(6) Strip maps and trail vehicles are not required to march from range to range along Range Road

c. Running in groups of five (5) or more requires individuals to be in formation. Individual joggers and groups of five (5) or less will use the left side of the road facing traffic and will form a single file when passed by vehicle traffic from either direction. All individuals running will wear reflective vests or belts. All vehicle traffic approaching individual or formation runners will slow to 10 mph. Headphones or anything that impairs normal hearing will not be worn while running. Running on range roads (Wilderness Road, Eagles Nest Trail Road) is authorized between 0500 and 0730 hours. Running must be completed by 0730 due to the volume of traffic using the ranges in this part of Camp Bullis.

12-10. Blackout Drive Areas and Requirements

a. Units may request from Range Control, permission to use service drive in a blackout area for normal operations. Approval will be contingent upon other unit training in progress at the time. Requests should be made 21 days in advance.

b. In any emergency situation, service drive may be used.

12-11. Privately Owned Vehicles (POVs)

All POVs, with the exception of law enforcement and contract workers, are prohibited from driving to or parking at any ranges, TAs, or TSs. The only exemption is the Outdoor Sportsman Range. Access to the Outdoor Sportsman Range requires a pass that will be issued by Range Control.

12-12. Wash Racks

a. The wash rack located at the Camp Bullis Motor Pool is available for use by training units on request and in coordination with the 32nd Medical Battalion, Training Support Company, (210) 295-7722/7710. Units are responsible for ensuring that the

wash rack is thoroughly cleaned after use and all trash is placed in the receptacles provided.

b. Under no circumstances will vehicles be washed in billet areas, TAs, around dining facilities, or at water points.

12-13. Bulk Fuel Operations

a. Contact Range Control to complete a special site request NLT 30 days prior to establishing a fuel farm/bulk POL distribution point. All requested sites must be approved by 502nd MSG, CE and Environmental prior to use.

b. Due to fire and safety considerations, no POL bulk storage and distribution points will be established within the cantonment area.

c. No fuel or POL operations will be conducted within any of the Edwards Aquifer Zones, the Recharge Zone and the Contributing Zone. For more information on this restricted area, contact 502nd MSG, CE and Environmental, Building 6201, (210) 295-7889.

d. The bulk fuel/POL site shall be void of any woody vegetation to the extent possible and nearly level to minimize excessive clearing of vegetation. Berms must be constructed around the bladders to contain major spills and prevent shifting of the fuel bladders. All POL spills will be immediately reported to Range Control and 502nd MSG, CE and Environmental so proper control and clean-up can be accomplished.

e. For additional guidance for bulk fuel operations contact 502nd MSG, CE and Environmental, (210) 295-7889.

12-14. Communications

a. The primary means of communications on the Camp Bullis range complex is tactical FM/Motorola radios. The secondary means of communications with Range Control on live fire ranges are telephones located in Range Towers. It is a unit responsibility to provide radio equipment capable of operating on the Range Control tactical communications net (FM 34.20). Radio assets must be planned for in advance. Some field locations may require vehicle mounted equipment or the addition of OE254/292 antennas.

b. Standard radio procedures will be used on all Range Control Nets.

c. Range Control frequencies will not be used for internal communications.

d. Units will perform an hourly radio check with Range Control. If radio contact cannot be accomplished the RTO will notify his OIC/RSO and the unit will place themselves in Cease-Fire until reliable communications can be reestablished.

e. It is the responsibility of the OIC to establish and maintain tactical FM/Motorola radio communications with Range Control on equipment dedicated solely for that purpose. He must additionally ensure that the radio is continuously monitored at all times the range is occupied and that radio checks initiated by Range Control are answered. Installation policy is that if after three unsuccessful attempts are made to

contact any range, a Range Control representative will be dispatched to the range and it will immediately be placed on Cold Status. The Range Control representative will then make a determination as to whether the problem was equipment malfunction or a violation of the prescribed monitoring requirement. If it is an equipment malfunction the Cold Status will be lifted as soon as reliable and satisfactory communications are reestablished.

f. Whenever range facilities are occupied, regardless of the reason or firing status, units will maintain FM communications with Range Control.

g. If the unit's next higher HQ has communications with Range Control during the bivouac phase, direct communications with that HQ satisfies this requirement. If a landline is readily available to the unit at the bivouac site, coordination may be made with Range Control to monitor the phone in place of radio as long as live fire is completed for the day. Failure to meet monitoring requirement is reason for loss of facility use by the unit.

Appendixes

Appendix A Description of Range Facilities

a. The table below is a composite listing of the range facilities. It is meant to be an abridged version to assist in planning training events. Detailed information can be found by visiting our website <http://www.samhouston.army.mil/Bullistraining>, in the Range/TA SOP, or by contacting Range Control, (210) 295-7510

b. The use of a range facility for other than the standard listed in this document is strictly prohibited without approval and coordination of Range Control. Non-standard usage always requires approval by Range Control.

c. Improper or unauthorized use of range facilities may cause immediate Cease-Fire of the facility and the OIC/RSO to be relieved of their duties. All damage to range facilities caused by unauthorized use will be the offending unit's responsibility to repair, replace, or provide funding to correct. This includes, but is not limited to, damage or destruction of targetry, emplacements, grounds, equipment, and structures.

d. A range book will be issued to the OIC for each listed range facility. The range book contains a copy of this regulation, detailed information on range operations, clearance procedures for the facility, and field manuals for the standard weapons used on the range. The range book's contents should be checked according to the list in the front of the book before leaving Range Control. It will be inventoried for completeness when it is turned back in. Missing manuals are the unit's responsibility to replace.

e. It is the unit's responsibility to ensure appropriate weapons and ammunition manuals are on site for approved non-standard range usage.

f. The primary weapons listed in the table below are the LARGEST weapons that can be used on the range.

Camp Bullis REG 350-1 (17 May 2011)

RANGE	LOCATION	PRIMARY USE	MUNITION CAPABILITY	DESCRIPTION
NS SMALL ARMS RANGE A	NT41367914	Pistol/Shotgun familiarization or qualification	.38cal 9mm .45cal 12GA	55 Firing Points at 15, 25 & 50 yards (3 Firing Lines). Target holders, target shed, ammo breakdown area, control tower, latrine, bleachers, and parking area
NS SMALL ARMS RANGE B	NT41447897	Pistol/Shotgun familiarization or qualification	.38cal 9mm .45cal 12GA	30 Firing Points, target holders, target shed, ammo breakdown area, control tower, latrine, bleachers, and parking area
MODIFIED PISTOL QUALIFICATION COURSE	NT41757877	Instructional firing and combat pistol qualification	.38cal 9mm .45cal	10 Firing points, Range Tower, Bleachers, Parking area, Latrines, Ammunition break down Area
BASIC 10/25M RANGE A	NT41647861	Pistol/Shotgun familiarization or qualification	.38cal 9mm .45cal 12GA	33 Firing points, target holders, target shed, ammo breakdown area, control tower, latrine, covered bleachers, and parking area
BASIC 10/25M RANGE B	NT41877858	Shot grouping, battle sight zeroing, 25m scaled target practice, and proficiency C course firing	M16A1-M4 M249 .38cal 9mm .45cal	38 Firing points, target holders, target shed, ammo breakdown area, control tower, latrine, covered bleachers, and parking area
SPORTSMAN'S RANGE	NT42017853	Facility for civilian sportsmen and military competition shooters	M16A1-M4 M14 30.30 caliber 30.06 soft tip rounds	46 Firing points, covered bench rest and standing, target holders, target storage, ammo breakdown area, latrine, and parking area (Outdoor Recreation Center maintains & operates)
LAW ENFORCEMENT RANGE	NT42167856		M16A1-M4 .38cal 9mm .45cal	5 stations, covered bleacher, target holders, target storage, ammo breakdown area, Range Tower, Pneumatic, stationary targets, MPQC, and parking area

Camp Bullis REG 350-1 (17 May 2011)

KD RANGE B	NT42317849	Rifle familiarization and qualification	M16A1-M14 5.56mm 7.62mm Match	40 Firing points, target butts
COMBAT PISTOL QUALIFICATION COURSE	NT43287891	Instructional firing and combat pistol qualification	.38cal 9mm .45cal	15 Firing points, Range Tower, Bleachers, Parking area, Latrines, Ammunition break down Area
BASIC 10/25M RANGE C	NT43287891	Instructional firing, marksmanship training, shot grouping, battle sight zero, & 25m scaled down target practice	M16A1-M4 M60 M249 M240B	75 Firing points for 5.56mm; 20 firing points for 7.62mm, Range Tower, Bleachers, Parking area, Latrines, Ammunition break down Area, Target Storage Area
MULTIPURPOSE MACHINE GUN RANGE	NT43917939	Instructional firing, to include familiarization, fire adjustment, gun traversing, to obtain an accurate burst on point and area targets, and for qualification	M60 MG M240B M14 M249 5.56mm 7.62mm	10 Firing points for 5.56mm; 20 firing points for 7.62mm, Range Tower, Bleachers, Parking area, Latrines, Ammunition break down Area, Target Storage Area
AUTOMATED FIELD FIRE (AFF) RANGE	NT44407928	Soldiers Fire at target distances comparable to those on battlefield, develops speed in target engagements, develop confidence in individual ability to qualify with individual weapon, and enhances individual ability to fire during limited visibility	M16-M4 5.56mm	20 Firing points, Radio Control Targets, Range Tower, Bleachers, Parking area, Latrines, Ammunition break down Area, Target Storage Area

Camp Bullis REG 350-1 (17 May 2011)

AUTOMATED RECORD FIRE RANGE	NT45288025	Engagement of personnel targets in a simulated combat environment, and for qualification	M16-M4	16 Firing points, Radio Control Targets, Range Tower, Bleachers, Parking area, Latrines, Ammunition break down Area, Target Storage Area
MODIFIED RECORD FIRE RANGE	NT45688058	Engagement of personnel targets in a simulated combat environment, and for qualification	M16-M4	16 Firing points, Radio Control Targets, Range Tower, Bleachers, Parking area, Latrines, Ammunition break down Area, Target Storage Area
GRENADE LAUNCHER RANGE	NT41568106	M203 Grenade Launcher qualification	M203 40mm	10 Firing points, Range Tower, Bleachers, Parking area, Latrines, Ammunition break down Area
HEAVY DEMOLITION RANGE	NT43518360	Demolition training	12lbs C4 PETN TNT	1 Station, Open Burn Open Detonation
FAMILIARIZATION HAND GRENADE RANGE	NT43188343	Training for familiarization and employment of live hand grenades	M67 Fragmentation Hand Grenade M18A1 Claymore Mine	5 throwing bays, Range Tower, and Viewing ports area
HAND GRENADE QUALIFICATION COURSE	NT43328243	Training for tactical employment of hand grenades & qualification	Practice hand grenades only	7 Stations, Bleachers
LIVE-FIRE SHOOT HOUSE (TA-34)	NT42418421	This facility is used to train individual soldiers, squads, and platoons on room clearance tasks necessary to MOUT operations in a live fire environment	M16A1-5.56M .38cal 9mm .45cal SRTA(Blue Tip) no Force on Force Simulators/SE SAMS Blank MILES	1,400sqft facility

Camp Bullis REG 350-1 (17 May 2011)

URBAN ASSAULT COURSE (UAC) (TA-22)	NT42438445	This facility is used to train individual soldiers, squads, and platoons on tasks necessary to operate within a built-up/urban area	SRTA(Blue Tip) no Force on Force Simulators/SE SAMS blank for the underground trainer MILES	4 Stations, 2 Stations can be fully-instrumented by a Range Tech
CONVOY LIVE FIRE RANGE UAC STATION 3	NT43868355	This range permits the firing of weapons from a moving vehicle	M16A1-M4 M249 SRTA(Blue Tip) no Force on Force Simulators/SE SAMS 40mm TP use at UAC Station 3	Range tower, radio controlled targets, target shed, portable latrines
LAND NAVIGATION (TA-1, 2, & 9)	1-NT40867829 2-NT45738966 9-NT40708592	Beginners day land navigation course, Intermediate night land navigation course	Blanks	Land Navigation Course
BIVOUAC AREA (TA-3, 6A, 8 & 24)		Bivouac and field training site	Blanks MILES	Assembly/Staging Area, JMPI training mock-up, 45-ft. rappel tower, rope corral
LEADERS REACTION COURSE (TA-4, 16)	NT41057932	Test of Soldier's mental and physical ability and to build confidence by cultivates their spirit and daring.	NA	17 Tasks/Stations for Team Building
BLACK JACK VILLAGE (TA-6/6A)	NT39938064	Bivouac area, field training	Blanks MILES	Bivouac Training/Staging
LITTER OBSTACLE COURSE (TA-7)	NT40198142	Train medical litter teams to negotiate obstacles		Various Obstacles (i.e. ditches, walls, etc.)
DROP ZONES. (DZ HALL, BUCK, COUGAR, & TURKEY (TA-10, 18, 19, & 20)	10-NT43088770 18-NT44119071 19-NT38278950 20-NT38919001	Personnel and cargo drops	NA	203 acres used ICW CALS and Equipment Drops
COMBAT ASSAULT LANDING STRIP (TA-12)	NT40548428	Airborne Operations	Blank	Landing strip designed to hold 7 x C-130 aircraft.

Camp Bullis REG 350-1 (17 May 2011)

OBSTACLE COURSE (TA-13)	NT41177888	Test of Soldier's physical conditioning and basic skills.	NA	6.74 acres, 18 Obstacles
PARADE FIELD (TA-14)	NT40927920	Ceremonies, Physical Training, and combatives on Camp Bullis	NA	Parade Field
C4 TRAINING AREA (TA-15)		Medical Training site for Soldiers attending C4 Course at Camp Bullis	Blanks	47.5 Acres
RAPPEL TOWERS (TA-17)	NT412118352	Test of Soldier's individual mental and physical ability and confidence by cultivating their spirit and daring. Promotes teamwork and provides a challenge to the small unit leader.	NA	45-Ft. Rappel Tower 50-Ft. Rappel Tower
MEDICAL TRAINING LANE (TA-21) AN-PSS 14 MINE DETECTION LANE	NT38919001	Train and test Soldiers on common medical tasks and medical field training	Blanks MILES Pyrotechnics	22.1 acres
TACTICAL TRAINING BASE (TTB) (TA-22)	NT38158324	Staging area for personnel	NA	Staging area
WHEELED VEHICLE DRIVING COURSE (TA-23)	NT40037911	Train and test Soldiers to drive all U.S. Army wheeled vehicles (NTE 5 ton vehicles)	5.56mm & 7.62mm Blanks	78 acres
MOUT SITE (TA-25) 25A IED-D AI DORA,25B AI Rasheed,25C Yusufiyah 25D Mahmoudiyah	25-NT43208976 25A-NT43238970 25B-NT43088939 25C-NT43859047 25D-NT52118715	Train mounted IED Lane and dismounted Soldiers in Military Operations in Urban Terrain (non-live fire)	Blanks MILES Pyrotechnics	4 Buildings (non-instrumented)

Camp Bullis REG 350-1 (17 May 2011)

COMBINED ARMS COLLECTIVE TRAINING FACILITY (CACTF) (TA-27)	NT43128473	Train mounted and dismounted Soldiers in Military Operations in Urban Terrain (non-live fire).	Blanks Simunitions MILES Pyrotechnics	15 acres, 16 fully-instrumental buildings constructed of concrete blocks or sheet metal
INTERNMENT DETENTION TRAINING FACILITY (IDTF) (TA-28)	NT39838086	Enemy Prisoner of War Compound. Facility designed to test operations of Military Police and Military Intelligence platoon/company. The compound serves as a fixed facility to conduct refugee and POW activities	Blanks and pyrotechnics	Units requesting this facility must coordinate with 470 th MI for use.
FIELD TRAINING SITE (TA-29)	NT39648049	Squad station and maneuver training	5.56mm & 7.62mm Blanks	Open area
RECONFIGURABLE VEHICLE TACTICAL TRAINER (RVTT) (TA-30)	NT40407837	Train and test Soldiers on basic and advanced convoy operations to include combat operations		
HUMVEE EGRESS ASSISTANCE TRAINER (HEAT) (TA-31)	NT40387835	Train Soldiers on procedures for Humvee rollover	NA	M114 Humvee simulator
INFANTRY TRAINING AREA (ITA) (TA-32)	NT41377827	Individual and common tasks training	5.56mm & 7.62mm Blanks	Used for Bivouac and/or WTT Training
MEDICAL TRAINING CENTER (METC) (TA-33)	NT39468104	Squad station and maneuver training	NA	125 acres, 16 Buildings, Simulating Field Conditions for Medical Ops
CBRN CHAMBER (TA-36)	NT39878179	Nuclear, Biological and Chemical training	CS Capsules	1 Building

Camp Bullis REG 350-1 (17 May 2011)

TRAINING AREAS	Various	All tactical training areas may be utilized individual tactical training (ITT) and unit exercises. Bivouac sites maybe established in all TAC areas. Foot marches and ambush sites are authorized with prior coordination with Range Operations	Blank ammunition is authorized in all tactical areas. Pyrotechnics, flares, andsmoke, may be used in selected areas based upon fire conditions and coordination with Range Control	
FSH TRAINING AREAS (TA-10 A & B)	Various	All training areas on FSH may be utilized individual tactical training (ITT) and unit exercises	NA	

Appendix B UXO Briefing

a. Purpose: The purpose of this briefing is to impress upon each individual the dangers associated with unexploded ordnance (UXO). It is imperative for each individual to know and understand the proper procedures to follow in the likely event that they discover a UXO.

b. Introduction: Camp Bullis has been in existence since 1917 and since that time large amounts of high explosive ammunition has been fired into the installation. There exist large quantities of unexploded ammunition throughout the Impact Area, Training Areas and Cantonment Area. Although Camp Bullis has an aggressive and continuous clean up policy, it is likely that you may encounter UXO during the conduct of training on Camp Bullis.

c. UXO may be difficult to distinguish from rocks trash or other debris, at first glance it may appear as a branch or rock. The most important rule to remember from this briefing is: **NEVER TOUCH or HANDLE UXO**. It is not a test of courage; it is a test of intelligence. UXO varies in sensitivity and may require only a near vibration to detonate the primer.

d. Procedures: If UXO is found, notify your OIC, NCOIC, or supervisor immediately and report the exact location. Mark off a 10m perimeter with engineer tape and the location Notify Range Control by radio FM 34.20 or phone (210) 295-7510. **Do not under any circumstances drive anything into the ground.** The unit will evacuate all personnel a minimum of 350 meters from the UXO. Only trained EOD personnel are authorized to deal with UXO.

ARMY, MARINE CORPS, NAVY, AIR FORCE



**AIR LAND SEA
APPLICATION
CENTER**

UXO

***MULTI-SERVICE TACTICS,
TECHNIQUES, AND
PROCEDURES FOR
UNEXPLODED EXPLOSIVE
ORDNANCE OPERATIONS***

FM 3-100.38

MCRP 3-17.2B

NTTP 3-02.4.1

AFTTP(I) 3-2.12

AUGUST 2005

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

MULTI-SERVICE TACTICS, TECHNIQUES, AND PROCEDURES

Appendix D

PROTECTIVE MEASURES

There are three methods to protect personnel and equipment: evacuate, isolate, or barricade (or any combination thereof).

1. Evacuate

When possible, evacuation of all personnel and equipment is the best protective measure. See table D-1 for minimum evacuation distances. Allow occupation of the area only by mission essential personnel and equipment. After evacuating all personnel and equipment, allow movement within the area only for essential operations. Use barricades to protect mission-essential personnel and equipment that must stay in the area. (See paragraph 3, this appendix, for additional information on barricades.) Personnel who must remain in the area should also wear all protective equipment (to include Kevlar helmets and vests).

Table D-1. Evacuation Distances

EVACUATION DISTANCES	
Explosive Weight (pounds)	Evacuation Distance (meters)
27 or less	350
30	360
35	380
40	400
45	410
50	430
100	540
150	610
200	670
250	730
300	770
400	850
500	910

2. Isolate

Sometimes, for mission-related, operational, or other reasons, evacuation of personnel or equipment is not possible or it is not possible to leave a particular area. In these situations, isolate the assets (personnel, equipment, and operations) from the UXO by establishing a safe area and limiting exposure within the UXO hazard area.

3. Barricade

A barricade provides limited protection by blocking blast and fragmentation from an explosion. "Suppressive" barricades are constructed to isolate an explosion, to deflect the thermal/shockwave, and absorb low-angle, high-speed fragments. "Protective" barricades are constructed around exposed resources to shelter from overpressure and impact of high-angle, low-speed fragments, which can escape over the top of "suppressive" barricades. Natural terrain features can provide adequate frontal and overhead protection. If natural barricades are judged inadequate, construct artificial barriers. Constructing barricades is very time consuming and requires a large number of sandbags or earth-moving equipment. While building barricades, personnel should not disturb the UXO and should wear all protective equipment (to include Kevlar helmets and vests). Depending on the size of the UXO, build suppressive barricades around the UXO to protect the entire area, or build protective barricades next to non-evacuated personnel or equipment to shelter from overpressure and impact of high-angle low-speed fragments of exploding ordnance. Priority should be given to evacuation of resources and building protective barricading. (See figure D-1.)

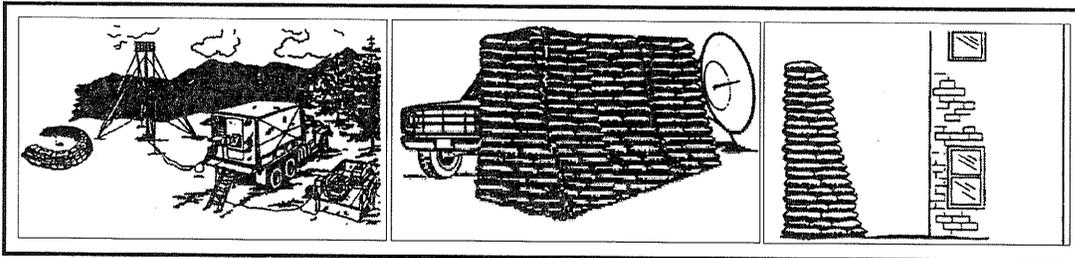


Figure D-1. Barricade Examples

a. **Small Yield UXO.** For small yield UXO, generally less than 3 inches in diameter, a double-wall thickness of sandbags should surround the area of the UXO. Stack the sandbags to at least 3 feet high and thick enough (minimum 2 sandbags deep) to protect personnel and equipment from the blast and fragmentation.

b. **Medium Yield UXO.** For medium yield UXO, generally from 3 inches to 10 inches in diameter, a wall thickness of four or five sandbags within 5 to 7 feet should surround the area of the UXO. Stack the sandbags to a height of at least 5 feet to protect assets.

c. **Large Yield UXO.** UXO over 10 inches in diameter are generally too large to build effective barricades around them. In these cases, barricade the equipment and personnel activity areas. Marines and soldiers can use FM 21-16/MCRP 3-17.2A, *Explosive Ordnance Procedures*, for additional guidance on protective measures.

Appendix C Certification Memorandum



LETTER HEAD

#####

REPLY TO
ATTENTION OF:

DATE

MEMORANDUM FOR: Range Control

SUBJECT: OIC/RSO Certification

1. I hereby certify that the below listed individuals are competent with the weapons indicated in accordance with (IAW) DA PAM 385-63. Competency includes but is not limited to employment, misfire procedures, malfunctions, loading and unloading ammunition, handling, storage, weapons clearing procedures and other hazardous characteristics of the weapons being employed. I further understand that my responsibility and authority to certify these personnel cannot be delegated IAW AR 385-63, Ch 1.

2. The personnel named below, know, understand and are familiar with the requirement directed by AR 385-63, DA PAM 385-63 and TCFE 350-1 including all applicable updates and changes. They are additionally aware that they must have a Range Certification Card and computer file entry in the Range Facility Management Support System (RFMSS) database at Camp Bullis.

<u>NAME</u>	<u>RANK</u>	<u>LAST 4 SSN</u>
#####	#####	####

The Soldiers are certified on the following weapons systems:
(List weapons Soldier is certified on)

POC for this memorandum is #####

COMMANDING

Appendix D Spill Reporting Procedures

1. Purpose: To establish procedures to be followed in the event a spill (one gallon or more).
2. Policy: This directive applies to spills of all hazardous or toxic liquids. Actions to control, contain, remove, and clean-up spills are to begin immediately to contain the damage. The responsibility for initiating these procedures rests with the ranking military or civilian at the scene. It is their additional responsibility to ensure that the spill is promptly reported as outlined below.
3. Notification: The ranking individual observing a spill of any type or quantity will immediately notify Range Control on FM 34.20 or by telephone (210) 295-7510. The report should include:
 - a. Location.
 - b. Time of occurrence.
 - c. Type of spill (ie POL, etc) if known.
 - d. Estimate of quantity and if spill is still in progress.
 - e. Affected area.
 - f. Cause if known.
4. Range Control will notify the proper points of contact to assist the unit in recovery.

Appendix E Ammunition Found on Post/Ammunition Amnesty Program (AFOP/AAP)

1. AFOP/AAP Recovery Program

a. All ammunition/ordnance found on-post should be considered hazardous and will not be moved without the approval of Range Control.

b. Individuals finding ammunition/ordnance, must contact Range Control immediately (210) 295-7510 for instructions. Range Control will respond to all calls regarding ammunition/ordnance, will identify the type of ammunition/ordnance found, and will make the decision on disposition. Range Control will contact EOD, as required.

c. Hazardous explosive ammunition/ordnance that cannot be identified will be treated as UXO, marked IAW chapter 12-3 of this regulation.

Appendix F Initial Incident Report

1. INDIVIDUAL REPORTING INCIDENT

Name: _____ Rank: _____ Unit: _____ Phone #: _____
 LAST FIRST MI

Date: _____ Time: _____ Gender (M/F): _____ Age: _____
 Grid Coordinates (VP): _____ Range #: _____ TA #: _____

2. NATURE OF INCIDENT: (check all appropriate boxes)

<input type="checkbox"/> Personnel Injury	<input type="checkbox"/> Aircraft	<input type="checkbox"/> Ammunition Malfunction
<input type="checkbox"/> Property Damage	<input type="checkbox"/> Lost Personnel	<input type="checkbox"/> Lost Property (includes sensitive items)
<input type="checkbox"/> Round out of Safe	<input type="checkbox"/> Fire	<input type="checkbox"/> Other _____
<input type="checkbox"/> Weapon Malfunction	<input type="checkbox"/> Environmental	_____

3. SUMMARY OF INCIDENT:

4. PROCEDURE(S) INITIATED:

Action Taken	Time Notified	Personnel Notified	Non-Emergency Phone Number	Emergency Phone Number
Cease Fire				
Guthrie UCC				
MEDDEVAC				
MP/Security				
Fire Department				
DPTM				
Safety				
EOD				
IOC				
LAO				
Range Inspection				

NOTE: Refer to incident report telephone list for after duty hour numbers

5. ADDITIONAL REMARKS:

6. REPORT TAKEN BY: _____

7. FOLLOW-UP: _____

Appendix H Example Maneuver Scenario Memorandum



DEPARTMENT OF THE ARMY
Unit

REPLY TO
ATTENTION OF:

#####

DATE

MEMORANDUM FOR Range Control

SUBJECT: Convoy Live Fire Range Scenario

1. Purpose. To provide information on range requirements and safety control measures planned for a fire and maneuver range from 3-5 February 2002 at Camp Bullis.
2. Background. The 188th Military Police Company will conduct a Convoy live fire exercise (CLFX) at Camp Bullis. This range will focus on react to ambush operations. On 2 February range safeties and squad observer controllers (OC) will be certified to conduct their duties. Squads executing the CLFX will be certified prior to execution. To be certified OC, safeties, and squads conducting CLFX will be required to conduct a dry fire and blank fire rehearsal on the range. The battalion S3 will be the certifying authority for range safeties, OC, and squads conducting CLFX. Participants will be required to conduct as many dry fire rehearsals as the S3 deems necessary to ensure they are proficient at the required skills to execute the lane. At a minimum, participants will walk the lane once, dry fire once, and blank fire once.
3. Maneuver Plan. Squads will start from Assembly Area (AA) ALPHA. At this point the Squad will receive its safety brief and be issued its ammunition. Upon completion of the safety brief, the squad will move out from the start point (SP). At the SP the RSO will give the "lock but not load" command (**No ammunition will be in any chamber**). The SP is also PL BLUE which indicates the no passage line. This PL will only be crossed by authorized personnel (all personnel authorized passage will be approved by the BN S3). Prior to LD the RSO will receive an all accounted for report from the BN S3 CP. The BN CP will be required to account for all personnel executing and supporting range operations. The unit will then begin to move down range in a convoy formation. Once the unit reaches Engagement Area (EA) COWBOYS and all personnel are in position, the RSO will initiate an admin/safety halt and give the command "lock and load". Upon completion, gunners will begin to engage targets 6-10 and dismounts will engage targets 1-8. The unit leader will then request indirect fire support and begin calling for fire at tank

hulls located in the impacted area. The BN FSO (not a permanent position) and the mortar safety Officer will confirm all shots fired by mortar teams. Once the training objective is met, the RSO will give the "cease-fire" command. All weapons will be cleared and rodded. The squad will then prep to continue mission. Once the squad is ready to continue mission, the RSO will give the "lock but not load" command (No ammunition will be in any chamber). The squad will then continue down route TIGER until they reach EA FORTYNINERS. Once lead vehicle crosses PL PURPLE a simulated land mine will detonate. All vehicles will stop and execute react to a far ambush measure. Soldiers will then dismount and prep to bound on the enemy. Once in position, the RSO will initiate an admin/safety halt and give the command to "lock and load" ammunition. All Soldiers will begin to engage targets 11-21 as they present themselves. Target 15 will be a live grenade bunker. Once the squad reaches PL ORANGE, all weapons will be placed on safe. Two Soldiers will maneuver forward and engage the enemy with a live hand grenade. Upon completion, the RSO will give the "all clear" command and the remaining portion of the squad will bound forward. Once on line, the squad will continue to engage the enemy until they reach their LOA. Once the squad reaches the LOA the RSO will give the "go clear" command. Range safeties will rod all weapon systems. At the LOA the squad will conduct all the appropriate TTP's for a far ambush (SITREP, reconsolidate and reorganize, etc...). Once all the training objectives have been met, the RSO will give the "cease-fire" command. All weapons will be cleared and rodded. The squad will then prep to continue mission. Once the squad is ready to continue mission the RSO will give the "lock but not load" command (No ammunition will be in any chamber). The squad will then continue down route TIGER until they reach EA REDSKINS. At PL YELLOW the convoy will reach a roadblock. All vehicles will stop and execute react to a near ambush measure. Soldiers will then dismount and prep to bound on the enemy. Once in position the RSO will initiate an admin/safety halt and give the command to "lock and load" ammunition. All Soldiers will begin to engage targets 18-33 as they present themselves. Once on line the squad will continue to engage the enemy until they reach their LOA. When the squad reaches the LOA the RSO will give the "go clear" command. Range safeties will rod all weapon systems. At the LOA the squad will conduct all the appropriate TTP's for a near ambush (SITREP, reconsolidate and reorganize, etc...). Once all the training objectives have been met, the RSO will give the "cease-fire" command. Range safeties will rod all weapon systems and do a thorough brass and ammunition inspection. Squad will then move to the AAR area for debriefing.

For night fire operations all control measures will remain the same for maneuver. There will be no HE 81mm mortar fire at night. Mortar teams will provide illumination for far and near ambush sites. Two road guards will be placed on route TIGER at PL BLACK and PL RED to prevent all movement between these PL's during illumination fire due to SDZ requirements.

4. Target Plan. To conduct this range we need 25 infantry lifters with 25 3-D type-E silhouettes, two armor mobile target systems (with two frontal BMP silhouettes), and two M203 troops in the open pits. In addition, we request a special target be built to replicate an infantry bunker. Request that the bunker meet the safety requirements to engage with live hand grenades. This will be the order format:

EA COWBOYS

Target Exposure Order by Number	Exposure Time	Type
2,3,4,6,10	10 Sec	Type-E, BMP
2,3,4,9	10 Sec	Type-E, Mobile
2,3,4,11	10 Sec	Type-E, Mobile
2,3,4,7	10 Sec	Type-E, Mobile

Note: Will adjust exposure time on the ground

EA FORTYNINERS

Target Exposure Order by Number	Exposure Time	Type
12,13,14,15,17	10 Sec	Type-E
12,13,14	10 Sec	Type-E
15,17,20,21	10 Sec	Type-E
18,19,20,22	10 Sec	Type-E

Note: Will adjust exposertime on the ground

EA REDSKINS

Target Exposure Order by Number	Exposure Time	Type
23,24,25	10 Sec	Type-E
26,27,28,30	10 Sec	Type-E
249,31,32,33	10 Sec	Type-E

Note: Will adjust exposure time on the ground

5. The battalion S3 section will be at the range the day prior to coordinate for target placement.

6. The point of contact is,.

- Encl 1 SDZ Overlays SIG BLOCK
- Encl 2 Maneuver overlay
- Encl 3 Risk assessment

Appendix I Exception to Policy Memorandum



REPLY TO
ATTENTION OF:

LETTER HEAD

#####

DATE

MEMORANDUM THRU Range Control, Range Officer, Camp Bullis, ATTN: Scheduling
Section building 6110, Camp Bullis, TX 78257

FOR Training Area Manager, RR2, Building 5003, Camp Bullis, TX 78257

SUBJECT: Request Exception to 21-day Scheduling Policy.

1. Request an exception to Camp Bullis Regulation 350-1, Section 2-2j.
3. Due to <reason>, it is essential that <unit> be granted an exception to the policy. We understand that since the requirement falls under the 21-day window, some support may not be readily available or special adjustments may be required to fill our training needs.
4. Dates of Requirement: <from-to>
5. What is the effect on the unit if training is disapproved: <impact on unit readiness if training is not fulfilled>.
6. POC is <name and phone>.

0-5
COMMANDING

Appendix J Special Site Request



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, CAMP BULLIS TRAINING SITE
CAMP BULLIS ROAD, BUILDING 5000
SAN ANTONIO, TX 78257

(Unit Identification)

(Date)

MEMORANDUM FOR RANGE CONTROL

SUBJECT: Request to Perform/Establish Site for the Following Activities at the Grids and Dates Indicated

1. Request permission to establish a (see below) from _____ to _____.
(Date) (Date)
 - a. Petroleum Distribution Site² Grid: _____
 - b. Smoke Generation^{1,4} Grid: _____
 - c. Hasty/Deliberate Decon Site¹ Grid: _____
 - d. Roadblock¹ Grid: _____
 - e. Ambush Site¹ Grid: _____
 - f. Earthmoving¹ Grid: _____
 - g. Field Laundry Site/Shower Point² Grid: _____
 - h. Water Purification Site² Grid: _____
 - i. Gray Water Site² Grid: _____
 - j. Field Latrine Grid: _____
 - k. Other (explain) _____³ Grid: _____

Notes:

1. Overlay required.
2. Overlay not required.
3. Overlay may be required.
4. Indicate how smoke will be generated.

2. The point of contact for this memorandum is (Commander/Supervisor name) at (xxx) xxx-xxxx or at email (email address).

/COMMANDER'S SIGNATURE/

COMMANDER'S NAME
RANK, BRANCH
Commanding

printed on



recycled paper

Appendix K General Liability Waiver

GENERAL RELEASE

NOTICE: By executing this document, you waive certain legal rights on behalf of yourself and your family. You should read this document carefully before you sign it.

In consideration for my being permitted to participate in marksmanship training and competition sponsored by _____, at Camp Bullis, Ranges and Training Areas, Training Sites I hereby remise, release, acquit, satisfy, hold harmless, and forever discharge the United States, its officers and employees from any and all manner of actions, causes of action, suits, debts, covenants, contracts, controversies, agreements, promises, liability, claims and demands whatsoever arising out of, claimed on account of, or in any manner predicated upon my participation in the aforementioned activity. I make this release on my own behalf and on behalf of my personal representative, successor, heirs, and assigns. I have been fully briefed on the dangers inherent in all planned activities. I hereby certify that I am in good health and suffer from no medical condition that will be aggravated or detrimentally affected by my participation in this activity.

IN WITNESS WHEREOF, I set my hand and seal this _____ day of _____.

(Signature)

(Printed name)

Appendix L Required and Related Publications

Section I. Required Publications

AR 350-1, Army Training and Education
AR 385-63, Range Safety
AR 385-64, Ammunition and Explosives Safety Standards
DA PAM 350-38, Standards in Training Commission
DA PAM 385-63 Range Safety
DA PAM 415-28, Guide to Army Real Property Category Codes
FM 3-34.214, Explosive and Demolitions
FM 7-0, Training Units and Developing Leaders for Full Spectrum Operations
TC 25-1, Training Land
TC 25-8, Training Ranges

Section II. Related Publications

AR 5-13, Total Army Munitions Requirements Process and Prioritization System
AR 75-1, Malfunctions Involving Ammunition and Explosives
AR 75-15, Policy for Explosive Ordnance Disposal
AR 95-1, Flight Regulation
AR 190-11, Physical Security of Arms, Ammunitions, and Explosives
AR 190-13, The Army Physical Security Program
AR 190-16, Physical Security
AR 200-1, Environmental Protection and Enhancement
AR 385-10, The Army Safety Program
AR 385-40, Army Accident Investigations and Reporting
AR 415-28, Real Property Category Codes
DA PAM 40-501, Hearing Conservation Program
DA PAM 350-9, Index and Description of Army Training Devices
DA PAM 385-10, Army Safety Program
DA PAM 385-24, The Army Radiation Safety Program
DA PAM 385-40, Army Accident Investigations and Reporting
FM 1-02, Operational Terms and Graphics
FM 3-0, Operations
FM 3-01, US Army Air and Missile Defense Operations
FM 3-01.11, Air Defense Artillery Reference Handbook
FM 3-04.140, Helicopter Gunnery
FM 3-05.70, Survival
FM 3-06.11, Combined Arms Operations in Urban Terrain
FM 3-09.31, Tactics, Techniques, and Procedures for Fire Support for the Combined Arms Commander
FM 3-11, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical Defense Operations
FM 3-21.8, The Infantry Rifle Platoon and Squad
FM 3-22.9, Rifle Marksmanship, M16-/M4-Series Weapons

Camp Bullis REG 350-1 (17 May 2011)

FM 3-22.10, Sniper Training and Operations
FM 3-22.27, MK19 40m Grenade Machine Gun, Mod 3
FM 3-22.34, TOW Weapon System
FM 3-22.65, Browning Machinegun, Caliber .50 HB, M2
FM 3-22.68, Crew Served Weapons
FM 3-22.90, Mortars
FM 3-23.25, Shoulder-Launched Munitions
FM 3-23.30, Grenades and Pyrotechnics Signals
FM 3-23.35, Combat Training with Pistols, M9 and M11
FM 3-25.26, Map Reading and Land Navigation
FM 3-34.210, Explosive Hazards Operations
FM 3-52, Army Airspace Command and Control in a Combat Zone
FM 3-90.1, Tank and Mechanized Infantry Company Team
FM 4-25.11, First Aid
FM 4-30.13, Ammunition Handbook: Tactics, Techniques, and Procedures for Munitions Handlers
FM 4-30.51, Unexploded Ordnance (UX) Procedures
FM 6-22, Army Leadership
FM 6-30, Tactics, Techniques, and Procedures for Observed Fire
FM 6-40, Tactics, Techniques, and Procedures for Field Artillery Manual Cannon Gunnery
FM 6-50, Tactics, Techniques, and Procedures for the field Artillery Cannon Battery
FM 7-21.13, The Soldier's Guide
FM 17-95, Cavalry Operations
FM 21-10, Field Hygiene and Sanitation
FSH 95-1, FSH Aviation General Provisions, Local Flight Rules and Flight Standardization Regulation
TB 9-1300-385, Munitions Restricted or Suspended
TB MED 524, Occupational and Environmental Health Control of hazards to Health from Laser Radiation
TM 3-23.25, Shoulder-Launched Munitions
TM 9-1010-230-23 & P, Unit and Direct Support Maintenance Manual (Including Repair Parts and Special Tools List) for Machine Gun, 40-MM, MK 19 Mod 3 and Machine Gun, MK 19, 40 MM, MK19 Mod 3, with Sight Bracket; Machine Gun, MK19, 40MM, Upgunned Weapons Station (UPWS)
TM 9-1300-200, Ammunitions, General
ATTP 3-39.32, Physical Security

Appendix M Acronyms

AAR	After Action Review
AFF	Automated Field Fire
AFOP/AAP	Ammunition Found on Post/Ammunition Amnesty Program
AJM	Assistant Jumpmaster
AMEDDC&S	Army Medical Department Center and School
AMR	American Medical Response
AR	Army Regulation
ARC	American Red Cross
ASA	Army Support Activity
ASP	Ammunition Supply Point
ATC	Air Traffic Control
ATLS	Advanced Trauma Life Support
ATM	Aviation Technical Manual
BAMC	Brooke Army Medical Center
CACTF	Combined Arms Collective Training Facility
CALS	Combat Assault Landing Strip
CARP	Computed Air Release Point
CBRN	Chemical, Biological, Radiological, Nuclear
CCMK	Close Combat Mission Capability Kit
CCT	Combat Control Team
CE	Civilian Engineering
CFA	Controlled Firing Area
CFOC	Confidence Obstacle Course
CLS	Combat Lifesaver
CO	Commissioned Officer
CS	Chemical Smoke
DACO	Departure Airfield Control Officer
DA	Department of the Army
DD	Department of Defense
DoD	Department of Defense
DZ	Drop Zone
DZSO	Drop Zone Safety Officer
DZSTL	Drop Zone Support Team Leader
EMT	Emergency Medical Technician
EOD	Explosive Ordnance Disposal
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FM	Field Manual or Frequency Modulation
FSH	Fort Sam Houston
FSN	Federal Stock Number
ft	foot or feet
HAHO	High Altitude, High Opening
HALO	High Altitude, Low Opening

Camp Bullis REG 350-1 (17 May 2011)

HazMat	Hazardous Material
HC	Smoke Pots
HQ	headquarters
HW	Hazardous Waste
IAW	in accordance with
ICE	Interactive Customer Evaluation
ICM	Improved Conventional Munitions
IFR	Instrument Flight Rules
INRMP	Integrated Natural Resources Management Plan
ITAM	Integrated Training Area Management
ITBC	Information Technology Business Center
JM	Jumpmaster
KP	kitchen police
LAN	Local Area Network
LASER	Lightwave Amplification by Stimulated Emission of Radiation
lb or lbs	pound or pounds
LRSO	LASER Range Safety Officer
LZ	landing zone
m	meter
M-F	Monday through Friday
Max. Chg.	Maximum charge
MEDCOM	US Army Medical Command
MEDEVAC	Medical Evacuation
MPMG	Multi-Purpose Machine Gun
MRE	Meals Ready to Eat
MSG	Mission Support Group
MILES	Multiple Integrated Laser Engagement System
MO	Malfunction Officer
MOS	Military Occupational Specialty
MPH	miles per hour
MSL	mean sea level
NCO	Non-Commissioned Officer
NCOIC	Non-Commissioned Officer-In-Charge
NET	New Equipment Training
NLT	no later than
NOE	Nap-of-the-Earth
NRA	National Rifle Association
ORC	Outdoor Recreation Center
OIC	Officer-in-Charge
PAM	pamphlet
Para	paragraph
PMCS	Preventive Maintenance Checklist System
PMI	Preliminary Marksmanship Instruction
POC	points-of-contact
POI	Program of Instruction
POL	petroleum, oil, and lubricant

Camp Bullis REG 350-1 (17 May 2011)

POV	Privately Owned Vehicles
QASAS	Quality Assurance Specialist Ammunition Surveillance
RC	Reserve Component
RCO	Range Clearance Officer
RFMSS	Range Facility Management Support System
ROTC	Reserve Officer Training Corps
RSO	Range Safety Officer
RTO	radio/telephone operator
RVTT	Reconfigurable Vehicle Tactical Training
SCED	surface charge evacuation distance
SDZ	surface danger zone
SFC	Sergeant First Class
SFS	Security Force Squadron
SJA	Staff Judge Advocate
SOP	Standard Operating Procedure
SSG	Staff Sergeant
TA	Training Area
TB	Technical Bulletin
TC	Training Circular
TES	Training, Education, and Security
TM	Technical Manual
TP	Training Practice
TRADOC	US Army Training and Doctrine Command
TS	Training Site
TTB/FOB	Tactical Training Base/Forward Operating Base
TTP	Tactics, Techniques, and Procedures
UAC	Urban Assault Course
UAS	Unmanned Aerial Surveillance
UAV	Unmanned Aerial Vehicle
UHF	ultrahigh frequency
USAF	United States Air Force
USC	United States Code
UXO	Unexploded Ordnance
VFR	Visual Flight Rule
WBGT	Wet Bulb/Globe Temperature
WO	Warrant Officer