

**Camp Gruber Training Center
Regulation 385-1**

Camp Gruber Range and Training Facilities Safety Regulation



**Camp Gruber Training Center
Oklahoma Army National Guard
Braggs, Oklahoma 74423
1 October 2024**

This regulation supersedes OMD Regulation 385-1, Camp Gruber Range and Training Facilities Safety Regulation,
Dated 1 September 2023

UNCLASSIFIED

Summary of Change

CG Regulation 385-1

- This revision
- Updates use of 7.62 and .300 on ranges
- Updates Non-Live Fire Ranges
- Updates MOUT CACTF (Special Instructions)
- Updates medical requirements for live fire and non-live fire events
- Updates Aviation Operations
- Updates TADSS facility request procedures

Headquarters
Oklahoma Military Department
Oklahoma City, OK
1 October 2024

CG Regulation 385-1

Safety
Camp Gruber Range and Training Facilities Safety Regulation

By Order of the Commander:



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COL, FA, OKARNG
Commander

History. This publication supersedes
CGR 385-1, dated 1 September 2023.

Summary. This regulation provides commanders and training units with required force protection guidance when utilizing ranges and training facilities on Camp Gruber. It provides procedures to protect military and civilian personnel who are utilizing Camp Gruber for training.

Applicability. This regulation applies to all military and civilian personnel utilizing any facility on Camp Gruber.

Impact on Army Manning System. This regulation does not contain any information that affects the OKARNG full time manning system.

Army Management Control Process. This regulation is subject to the requirements of AR 11-2.

Supplementation. Supplementation of this regulation is prohibited without approval from the post Range Management Authority.

Suggested Improvements. Users are encouraged to send comments and suggested improvements on DA 2028 (Recommended Changes to Pubs and Blank Forms) directly to Camp Gruber Training Center.

Distribution. A

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* This regulation supersedes CGR 385-1, Camp Gruber Range and Training Facilities Safety Regulation, dated 1 September 2023

Chapter 1

General

1-1. Purpose

This regulation governs the safe use of training facilities and areas located at Camp Gruber, Oklahoma. It is intended to supplement current training publications and regulations.

1-2. Responsibilities

a. The Director of Plans, Operations, and Training Division is responsible for the management and scheduling of training facilities and maneuver land at Camp Gruber. This individual, or the garrison commander, are the only persons who may approve exceptions to policy established by this regulation.

b. Range Operations is responsible for scheduling the use of training facilities.

c. The Range Management Authority is responsible for the enforcement of policies and procedures established by this regulation.

1-3. Scheduling of Training Facilities

a. Scheduling of ranges and training areas will be IAW Camp Gruber Range Facility Management Support System (RFMSS) SOP.

b. Information concerning the availability of training facilities can be obtained telephonically or by viewing the Two-Week Calendar located in RFMSS. However, training facilities are scheduled and reserved only thru RFMSS. RFMSS is the primary means for requesting and scheduling resources at Camp Gruber for all units. Organizations may request access thru the RFMSS website. <https://ngok-rfmss.ngb.army.mil/>

c. Cancellation of training facilities within 30 days can be accomplished telephonically but requires written documentation.

d. Units will not "block schedule" ranges or training areas for a period of greater than three (3) continuous days unless approved by the Range Operations Manager or his/hers designated representative. A training plan or training schedule is required prior to final approval of any continuous training events of greater than three (3) days.

1-4. Military Services and Civilian Agencies

a. All military services as well as local, State, and Federal agencies may use ranges at the discretion of The Adjutant General (TAG) of the State of Oklahoma, the United States Property and Fiscal Officer (USPFO) of the state of Oklahoma, and the garrison commander.

b. Requests for range use shall include all technical data regarding munitions and weapons systems. A determination will be made regarding the adequacy of the range for the proposed operation.

c. Services and agencies that use Camp Gruber ranges and training areas must comply with all applicable regulations, to include AR 350-19, AR 385-63, DA Pam 385-63, NGR 385-63, NGR 5-1 and any other as appropriate.

1-5. Arriving onto Post for training

a. All agencies and/or military units that stay or train on post must check-in at Range Control building 740 when first arriving onto Camp Gruber.

b. No directorate on post will issue buildings, facilities, or ranges without the Camp Gruber RC Form Post Entry/Clearance 16-001.

1-6. Daily Coordination Meeting

a. A coordination meeting is conducted daily at 0800 in Building 740 (Range Control) in order to conduct final coordination for facilities that will be utilized on the training site over the next 24-48-hour period.

b. Units are required to provide a representative to this meeting to accomplish the following:

(1) Add or cancel ranges/facilities.

(2) Coordinate with other units to transfer scheduled facilities or to arrange for joint utilization.

(3) To receive information on installation directed cease-fires, safety precautions or administrative information of interest to all training units.

(4) To turn in daily unit Situation Report (SITREP Camp Gruber RC Form 16-002) IAW Appendix B.

c. Units failing to attend the coordination meeting will result in the delay or cancellation of the training event.

1-7. Additions or Cancellations of Reserved Training Facilities

a. Additional training facilities may be acquired in the following manner:

- (1) Provide a RFMSS request IAW CG RFMSS SOP.
 - (2) Request the facility at the daily range briefing utilizing same day request pending facility is available for use.
 - (3) Request a facility from another unit currently scheduled for the facility.
 - (4) Coordinate for joint utilization with another unit. The unit scheduled for the range will be responsible for clearance of the range.
- b. Units may cancel facilities up to 24 hours prior to day of scheduled use by notifying the Range Control Scheduler or Fire Desk Operator.

1-8. Control of Airspace

- a. Camp Gruber's airspace is controlled at the installation level by activating and deactivating a Controlled Firing Area (CFA). Range Control is the only agency allowed to activate or deactivate a CFA via a Notice to Airmen (NOTAM). The level of restricted airspace that is activated is dependent on the weapons systems being fired on various range facilities within the installation.
- b. Firing will not be conducted when the ceiling (cloud height) is less than 305 meters (1000 ft AGL) above maximum ordinate of fire. No projectiles shall enter a cloud formation. Visibility shall be sufficient to maintain surveillance of the entire CFA and for a distance of five (5) miles beyond the CFA in all directions. The range OIC is responsible for ensuring that all firing is ceased prior to an aircraft entering the CFA airspace.
- c. Range OIC is responsible for calling cease fire if cloud cover falls below safe overhead limit.

1-9. Camp Gruber Maps

- a. The current Camp Gruber training map is the Camp Gruber Military Installation Map, scale 1:50,000, Series V783S, Edition 002, NSN 7643015690483.
- b. Units may order copies of the map through the Defense Logistics Agency (DLA), or download a digital copy from the Camp Gruber Range Control SharePoint <https://armyetaas.sharepoint-mil.us/sites/NGOK-CGTC/Sitepages/RangeControl.aspx>

1-10. Environmental Awareness and Protection

- a. Environmental considerations and requirements are listed in OMD Regulation 200-1.
- b. Ground disturbances such as defensive fighting positions, foxholes, mortar firing pits, etc. may be constructed only with prior notification and approval in authorized digging areas IAW OMD Regulation 200-1.
- c. Hazardous materials will not be left or disposed of anywhere on Camp Gruber. Contact the organization that issued the material for disposal instructions. All oil spills will be reported immediately to Range Control.
- d. All radioactive equipment training requires a Radiation permit (OKARNG Army Radiation Permit) that will be filled out prior to training and approved by Range Control and State Radiation Safety Officer (SRSO).

1-11. Alcohol policy

Alcoholic beverages are prohibited on all training facilities at Camp Gruber. It is also prohibited to transport alcoholic beverages along any installation road/trail leading to a training area or facility outside of the cantonment area. The use of alcoholic beverages in cantonment is under the authority of the training unit commander, however, the garrison commander may prohibit alcohol use for any unit, or individual, at any time.

1-12. Privately Owned Vehicles (POVs)

POVs are not authorized in the training areas or on ranges. Units may request an exception to this policy by providing a POV Authorization Memo to Range Control, which will be considered on a case-by-case basis as deemed necessary to support the unit's training requirements. BNs are only authorized five POV passes per training period. Range POV passes will be requested thru BNs, BDEs, or MACOMs at the CSM or BC (O5 or higher) level of approval to range control. Failure to abide by POV pass authorized locations and limits will result in the offender being prohibited from acquiring a POV pass in the future.

1-13. Fire Prevention

- a. Commanders will ensure all unit personnel are aware of fire hazards inherent in field training operations, to include the handling and firing of ammunition, fueling operations, open fires, etc.
- b. Range Control must be immediately notified of the location and extent of any fire on Camp Gruber whether on a range, training area or on the Main Post. No personnel are authorized to move downrange without specific authorization from Range Control. The report of the fire must include:
 - (1) Nature and size.
 - (2) Presence of ammunition or other explosive material, if any.
 - (3) Range facility or location by 6-digit grid coordinates if located in training areas.
- c. For fires involving ammunition and explosives:

(1) Every reasonable attempt will be made to prevent fires from reaching ammunition and explosives storage areas.

(2) If it appears that a fire could extend into an area where ammunition and explosives are stored, steps must immediately be taken by the senior service member present to evacuate such ammunition and explosives out of the fire area.

(3) Should a fire reach ammunition and explosives storage area, the senior service member present shall order the evacuation of all personnel to a safe distance from the storage area and post road guards as necessary to preclude entry of civilian and military traffic into the danger area. The senior service member present shall then notify Range Control of the measures taken.

d. When dry weather creates a fire hazard on the installation, the garrison commander may direct Range Control to declare a suspension on the use of certain types of ammunition/explosives/pyrotechnics. Due to varying conditions, some items may be suspended while other types may be approved for use. The Range Management Authority or his/her designated representative will consider this on a case-by-case basis, relevant to a Burn Ban issued for Muskogee County.

e. Burning of trash is prohibited.

f. Warming fires or barrels used to preclude cold weather injuries are permitted on a case-by-case basis only with prior approval of Range Control. Range Control personnel must be advised of the exact location of each fire. Unit commanders are responsible for safe use of warming fires.

1-14. Training Facility Clearance Procedures

a. Units are responsible for clearing all facilities they have been issued.

b. Clearance will be conducted during daylight hours utilizing CG RC Form 16-008 Range Clearance Checklist (See Appendix E). Additional procedures (by range) are listed in Appendix A and the specific Range/Facility Packet. When clearance is complete, the inspector will notify Range Control.

c. Inspectors will inspect facilities only until it becomes obvious that not enough preparation for clearance has occurred. In this case the inspector will brief the OIC of the deficiencies and depart.

1-15. Key Phone Numbers and Locations

a. Range Control	918-549-6041	Building 740
b. Operations and Training	918-549-6009	Building 154
c. Facility Maintenance	918-549-6078	Building 154
d. Security	918-549-6021	Trailer T-25
e. Warehouse	918-549-6064	Building 327
f. Billeting	918-549-6065	Building 117
g. TADSS	918-549-6014	Building 107
h. Fire Department	918-549-6010	Building 119

Chapter 2

Safety

2-1. General

Safe training is the responsibility of the training unit commander. This chapter provides general safety guidelines for conducting training at Camp Gruber.

2-2. Risk Assessments

Deliberate risk assessments are required for all live fire ranges, training events, and ammunition or explosives storage and transportation. Non-standard range and training activities with high or extremely high residual risk must be evaluated as outlined in DA PAM 385-30 or ATP 5-19 and DD Form 2977 (dated Nov 2020). Deliberate Risk Assessment Worksheet (DRAW) must be approved by the appropriate Command Authority as outlined in NGR 385-10, paragraph 7-8 and reviewed by the Range Control OIC/NCOIC and be on file at Range Control.

2-3. Communications

- a. All units using Camp Gruber training facilities are required to maintain two types of communication with Range Control. The type of communication required is dependent on the facility being used and whether live firing is being conducted. Specific requirements are listed in Appendix A for each training facility or range.
- b. Some ranges contain single radio (FM) capability. Units are still required to provide the second type of communication (FM or cell phone) with Range Control from internal assets.

2-4. Formations and Convoys

- a. Formations and convoys within requested training areas do not require any additional coordination.
- b. Formations and convoys within the cantonment area require prior coordination with Security 24 hours prior to the event. Units will also follow requirements listed in Chapter 11 - Motor Vehicle Accident Prevention, Army Regulation 385-10 dated 24 February 2017.

2-5. Vehicle operations

- a. Safety equipment.
 - (1) Eye protection (ANSI Safety Code Z87.1 approved safety goggles or spectacles with side shields) will be worn by VCs, drivers, and assistant drivers of combat or tactical vehicles when exposed to hazards outside the vehicle except when protected by a windshield.
 - (2) Head protection (combat vehicle crew, approved ballistic helmet, or flight helmet as appropriate) will be worn by all personnel operating or riding as a passenger in Army tactical vehicles in the field. Commanders at company, troop, and battery level may determine the headgear worn in garrison.
 - (3) All trailers will be equipped with safety chains or similar devices and properly connected to the prime mover to prevent breakaway trailer accidents.
 - (4) Trailer brake lights, taillights, and turn signals will be in operating condition.
 - (5) Army Motor Vehicles (AMV), except non-tactical vehicles, will be equipped with properly sized chock blocks for use when parked on sloped terrain, while maintenance is being performed, or when a vehicle is parked, and a trailer is attached.
- b. Ground guides. Ground guides are required when wheeled and tracked vehicles are backed or when moved within cantonment area or motor pool.
- c. Specialty vehicles.
 - (1) Manufacturer installed safety equipment will be maintained and in working order.
 - (2) Occupant protective devices will be worn by operators and passengers of specialty vehicles when installed by the manufacturer.
 - (3) Adequate head protection is required for operators and passengers operating or riding in tactical specialty vehicles and for operators and passengers of non-tactical vehicles
 - (4) Operators of tactical specialty vehicles will wear approved head protection (helmet) that at a minimum conforms to DOT Safety Standard No. 218 or equivalent, protective goggles or face shield, full-fingered gloves, long-sleeved shirt or jacket, long trousers, and over-the-ankle boots. Commanders may authorize the use of helmets that offer ballistic protection in lieu of DOT Safety Standard No. 218 when the tactical situation dictates such use.
- d. General movement of personnel.
 - (1) The following safety precaution must be in place before transporting troops in vehicles:
 - (i) Vehicle Commander or operator is responsible for safe operation of vehicle and safety of all passengers.
 - (ii) Fixed seating is installed, and passengers are seated wholly within the body of the truck.

(iii) The body is equipped with stakes or sideboards, rear safety strap or tailgate protection, and a tailgate step or ladder.

(2) Before starting the engine, operators transporting passengers in trucks must ensure that the tailgate, safety device, or safety strap is in place and determine that all passengers are in a safe position.

(3) Operators will follow passenger carrying capacities for tactical and administrative vehicles per TB 9-639 or the appropriate vehicle TM.

(4) Passengers may be transported without fixed seating for short distances on the installation if each passenger remains seated and wholly within the body of the vehicle.

(5) Personnel will not be transported in the bed of an Army truck, off post, unless the truck is specifically designed to carry troops.

(6) When transporting passengers in cargo trucks in which cargo is loaded, ensure that they are seated in fixed seats and the cargo is adequately secured.

(7) Transportation to and from troop training or maneuver areas may be done with cargo trucks provided such transportation is part of training and the vehicle is equipped with fixed seating.

(8) When transporting large numbers of Soldiers for training purposes, only approved semitrailers (such as vans and personnel carriers for 80 passengers) are authorized. No other types of semitrailers are considered safe to transport personnel.

e. Movement of personnel in cargo trucks. When transporting personnel in cargo truck convoys, the last vehicle in the convoy will not be used to carry passengers.

f. Army combat vehicle (ACV) safety guidelines

(1) Personnel in ACVs will wear protective headgear. The crew will wear fully operational combat vehicle crewman helmets or approved ballistic helmets with the chinstrap fastened.

(2) Personnel exposed to eye hazards will wear appropriate eye protection.

(3) Personnel in hatches will not expose more than their head and shoulders (nametag defilade). When nametag defilade is not observed, commanders must establish clear guidance and implement controls to mitigate or eliminate the added risk. All other personnel will ride with their bodies completely inside the vehicle.

(4) Riding on the exterior of ACVs is prohibited except where outlined as an accepted practice in an Army TM or FM.

(5) Seated personnel will wear occupant restraints, unless specifically exempted in the unit SOP or by the commander after completing RM for the mission.

(6) When vehicles and dismounted personnel are training together during darkness, the dismounted personnel will notify vehicle operators and track commanders or VCs of their location.

g. Assembly areas.

(1) Commanders will ensure that sleeping area perimeters are designated and marked. They should select sleeping areas protected by natural obstacles when possible.

(2) Where access to bivouac or an assembly area is restricted to road entry, a guard will be posted to warn vehicle crews that there are troops on the ground.

(3) Prior to leaving a motor pool or assembly area in tactical environments, the vehicle commander will walk completely around the vehicle to check for personnel clearance and/or other hazards in the vicinity of the vehicle.

(4) Operators will move ACVs in motor pools, parking areas, assembly, and sleeping areas only when a dismounted ground guide assists. When visibility is reduced, guides will use flashlights to direct vehicles. The track commander or VC, driver, and dismounted ground guide will maintain visual contact at all times.

h. The speed limits posted in this regulation apply to all personnel (military and civilian) operating on Camp Gruber. Always utilize safe driving practices.

i. **DO NOT** operate POVs beyond the cantonment area (area identified in APPENDIX C) without a POV pass issued by Range Control.

j. **DO NOT** exceed posted speed limits (cantonment area, North/South and Hilltop roads). All other maximum speed limits are as indicated in the Table 2-1.

k. Antennas must be tied down when moving within the cantonment area. Cover Antenna tips with a protective ball to prevent injury to personnel.

l. Utilize seat belts and safety restraints for both civilian and military vehicles.

m. Utilize protective headgear for both civilian and military motorcycles and all-terrain vehicles.

n. Highway warning devices will be used when vehicles are stopped or disabled on public highways/roads surrounding Camp Gruber, cantonment roads, and range roads. In no instance will personnel attempt to repair a downed vehicle (located in a road/trail) without a marking device to warn oncoming vehicles (i.e. soldier w/ flashlight or signaling device).

o. Vehicle movement at assembly area sites. Units must apply risk management procedures to control vehicular movement within their field sites. Control measures will be established based on the tactical mission requirements and the unit commander's risk assessment.

p. Motor marches (convoys arriving/departing) will be coordinated with Security (918-549-6021) NLT 24 hours in advance (Refer to OMD Pam 55-101). Units are responsible for turning in a timeline for motor movement. All convoys will enter thru Central Europe Gate, except Fuel tanker, Ammunition and Oversized Loads which will enter thru Sicily Gate. Units are responsible for coordinating with Security for opening Sicily Gate.

(1) Vehicles involved in a motor march must maintain a safe distance.

(2) The front and rear vehicles of a motor march should have communications capability with each other.

q. Limited visibility (blackout) marches.

(1) Units are required to coordinate night convoys with Range Control 48 hours in advance. Units must turn in convoy movement table, a map overlay and completed risk assessment prior to executing any night (blackout/NVG) marches.

(2) Unit commanders must ensure that appropriate intersections are manned by road guards equipped with flashlight or recognition devices enabling them to halt and warn other vehicles approaching the line of march.

(3) Travel on or across hard surface roads (cantonment area or public highways) will be with service drive only.

(4) The cantonment area is NOT an authorized "blackout drive" area. Vehicles will use service drive within this area.

(5) Only command-certified personnel will operate vehicles with night vision goggles/devices.

(6) Vehicles will not travel under blackout conditions until passing the established light lines. Posted light line markers: Youth Camp Road (UV04234928), Urban Assault Course (UV04344950), Sicily Road (UV04885085), and 24th Street/Pistol Loop Road (UV04275098).

r. Tracked vehicles:

(1) All armored/fighting tracked vehicles must travel with a minimum of two personnel, i.e. driver and vehicle commander. Personnel are required to have communications between driver and track commander. Radio is required between the lead and trail vehicles of each movement element.

(2) Dismount guides must be employed when moving in close quarters, crossing hard surfaced roads, and in bivouac areas at all times.

s. Units that wish to move vehicles that are uploaded with ammunition (to and from ranges) must inspect the weapon system (main gun, coaxial machine gun, and small arms) to ensure all live ammunition has been removed and is safe for transport.

t. On Post Convoy movements.

(1) All convoy movements will be coordinated with Range Control NLT 48 hours prior to movement.

(2) Units will submit a convoy movement table, map overlay and completed risk assessment for approval by Range Control for any convoy movement within the training center boundaries. Additional risk assessments may be required (as determined by the Range Control OIC/NCOIC) prior to conducting the motor movement.

(3) See Table 2-1 For convoy movement Vehicle Speed Limits

Table 2-1

Wheeled Vehicles	Max Speed	Tracked Vehicles	Max Speed
<u>Normal Conditions</u> - Established Roads (paved/non-paved, not posted) - Cross Country/Off Road	35 MPH 25 MPH	<u>Normal Conditions</u> - Established Roads (paved/non-paved, not posted) - Cross Country/Off Road	25 MPH 20 MPH
<u>Limited Visibility</u> - Established Roads/Trails With NVGs Without NVGs - Cross Country/Off Road With NVGs Without NVGs	25 MPH 20 MPH 20 MPH 15 MPH	<u>Limited Visibility</u> - Established Roads/Trails With NVGs Without NVGs - Cross Country/Off Road With NVGs Without NVGs	15 MPH 10 MPH 10 MPH 5 MPH
<u>Convoy Operations (5+vehicles)</u> - Normal Conditions Established Roads Cross Country/Off Road - Limited Visibility Established Roads With NVGs Without NVGs Cross Country/Off Road With NVGs Without NVGs	20 MPH 15 MPH 15 MPH 10 MPH 10 MPH 5 MPH		

Table 2-1 Vehicle Speed Limits*

**Commander, Camp Gruber Training Center, may change existing speed limits due to weather conditions. Changes will be coordinated with using units by Range Control.*

2-6. Restricted and Off-Limit Areas

- a. **DO NOT** enter onto ranges and training areas without first checking into Range Control. The areas may pose a danger to personnel that can result in serious injury or death. Range Control will advise personnel of the restrictions that may be put into place while downrange.
- b. **DO NOT** enter onto ranges and training areas other than what is assigned to the unit without approval by Range Control.
- c. **DO NOT** use firing ranges for tactical training or non-firing exercises without written approval from Range Control.
- d. **DO NOT** circumvent or by-pass road guards, road barriers, or gates.
- e. **DO NOT** conduct tactical training or fire any ammunition or pyrotechnics in the cantonment area (area identified in APPENDIX C) without written approval from Range Control.
- f. **DO NOT** enter into fenced or barricaded areas.
- g. **DO NOT** enter areas that are designated for collapsed/vertical structure rescue training. These areas are inherently unsafe for untrained personnel and can result in serious injury.
- h. **DO NOT** enter areas that are marked as hazardous areas. Areas on Camp Gruber have been identified as areas that pose a possible health hazard and are marked with appropriate signage.

2-7. Camp Gruber Barriers

- a. Barriers are used on Camp Gruber to restrict access to specific areas during range/training operations. Current barriers used on the training center consist of pipe gates, cable gates, and barricades. Bypassing or driving around and or the removal or unlocking of barricades is strictly PROHIBITED and will result in decertification of OIC.
- b. Responsibilities. Each unit will ensure required barriers (as listed in the CGR 385-1 and the specific range/facility packet) are in place prior to requesting a “hot” status from Range Control. Range Control personnel will verify barrier emplacements prior to approving any unit for a “hot” range/facility status.
- c. Inoperative barriers. Any inoperative barrier will be immediately reported to Range Control for repair/replacement.
- d. Additional barrier requirements. Using units/organizations will coordinate with Range Control for issue of barricades (if required). Using units/organizations are responsible for placement and recovery of barricades and associated materials.

2-8. Officer in Charge (OIC)/Range Safety Officer (RSO) Requirements

Prior to conducting training on Camp Gruber, a commander certified OIC/RSO shall check in at Range Control, receive their required safety briefings, and present their certification memorandum to the Range Control staff for record. Specific OIC/RSO requirements are listed in Appendix G.

2-9. Certification of OIC/RSO

In order to be certified as an OIC or RSO, the following two requirements must be met:

- a. Commander’s Certification. The first O-5 level commander shall provide a memo to Range Control in the format shown in Appendix F of those personnel who are certified to perform the duties as OIC and/or RSO IAW this regulation and DA Pam 385-63. It is recommended that the commander require each OIC and RSO to successfully complete a written examination which evaluates the individual’s knowledge of DA Pam 385-63, applicable FMs for the subject weapon system and CGR 385-1.
- b. Safety Briefing. All OICs and RSOs are required to receive a range safety briefing prior to range issue or occupation of the training areas/facilities. Range Safety training certificate shall be valid for one year from date of training.

2-10. Decertification of OIC/RSO

- a. OICs or RSOs who violate, or allow for the violation of DA Pam 385-63, applicable FM safety standards or this regulation may be decertified by the Range Safety Officer.
- b. Upon decertification, training will cease at the training facility until a certified officer is appointed.
- c. Examples of safety violations, which may result in immediate decertification, are as follows:
 - (1) OIC/RSO not present on range or not in a position to control training being conducted.
 - (2) No qualified medical personnel or litter-bearing vehicle on site.

- (3) Unsafe handling or storage of ammunition or pyrotechnics.
- (4) Failure to establish and maintain communication with Range Control.
- (5) Road guards not posted or performing duties as required.
- (6) Damage, destruction, or alteration of a training facility.
- (7) Permitting personnel downrange without authorization by Range Control.
- (8) Failure to follow specified actions as described in the specific Range Facility Packet.

2-11. Recertification Process after being de-certified

a. If a Battalion (BN) Commander (CDR) requests to Re-Certify an OIC/RSO that has been De-Certified at Camp Gruber, the BN CDR must send a Re-Certification Memorandum thru the Major Subordinate Command (MSC) CDR, State Safety Office (SSO), the Director Joint Staff (DJS) for The Adjutant General's approval. The BN CDR sends the Re-Certification memo (with certificate attached) through the above chain of command.

(1) Soldiers must schedule a time with Range Operations to complete an in-person class at Camp Gruber Range Control.

(2) TAG APPROVES MEMO TO RE-CERTIFY THE INDIVIDUAL(S).

(3) Minimum wait time to re-certify is one (1) year from the date of decertification.

b. Upon receiving TAG approval, the SSO will forward the Re-Certification Memorandum with attached Certification of Completion to the RMA. The RMA will then direct that the Re-Certification packet be attached to Current Commander's Certification Memo and the Soldier will be considered Re-Certified to act as OIC/RSO for ranges at CGTC.

2-12. Required Documents and Equipment at Training Ranges

The following documents must be present at all training facilities and must be readily accessible to the OIC:

- a. Range/Facility Packet (issued by Range Control).
- b. Field Manual and/or Technical Manual for the type of training being conducted or weapon system being fired.
- c. Copy of approved Deliberate Risk Assessment.

2-13. Range Safety Requirements

- a. Officer in Charge (OIC) and Range Safety Officer (RSO) requirements are listed in Appendix G.
- b. Communication requirements. When firing, units must maintain two (2) means of communication with Range Control. The primary means of communication is by FM radio. Telephone may be the secondary means of communication. At no time will a telephone be the primary means of communication.

2-14. Range Operations

- a. Each range must have qualified medical personnel with aid bag, litter, litter-bearing vehicle, and driver. See Appendix G for medical requirements.
- b. A red range flag must be flown (from the range location and the flagpole located on Range Loop Road) while the range is occupied. During periods of limited visibility, beacon lights will be displayed from the specific range and the flagpole on Range Loop Road. Additional range-specific guidance is also provided in Appendix A and the specific Range Packet.
- c. Hearing protection must be worn at all times by personnel on the range.
- d. Only authorized firing points will be used for live firing.

2-15. Personal Protective Equipment (PPE)

- a. Commanders must ensure that all personnel conducting range/training operations use the required PPE as specified for each range.
- b. Personnel conducting operations are required to wear the type hearing protection as required for the applicable hazard zone as specified in Appendix A and the specific FM for the weapon system being used.
- c. At a minimum, hearing and eye protection is required for all live fire training events. See specific range documentation for additional requirements.

2-16. Cease-Fire Procedures

- a. Any individual, military or civilian, who observes an unsafe act or condition, may stop firing by commanding a "CEASE-FIRE."
- b. All personnel must remain alert and watchful for unauthorized personnel, wildlife, vehicles, or aircraft that might inadvertently wander into danger areas. If this occurs, cease firing and notify Range Control immediately.
- c. A "CEASE-FIRE" command applies to all individuals regardless of the individual initiating the cease-fire.
- d. The initiating individual will report to Range Control immediately the reason for cease-fire by the quickest means possible.

2-17. Clearing of Weapons

- a. Upon completion of firing or when changing firing orders/crews and prior to any weapons leaving the range, the OIC or RSO will ensure that each weapon is cleared of all live ammunition and/or expended ammunition.
- b. Each weapon that is cleared will have the bolt or breech locked in the open position.

2-18. Medical Requirements

- a. A medic or a TC3 Certified Soldier with the following capabilities and equipment must be present on all ranges/specified facilities during the conduct of live fire/training as outlined in NGR 385-63, MEDCOM PAM 40-12, TC 3-20.40 and this regulation. (see appendix G)
 - (1) The medic must be MOS qualified. A civilian equivalent Emergency Medical Technician (EMT) or Emergency Medical Responder (EMR) is authorized as a substitute for a medic. Units must provide Range Control with the EMTs or EMRs current certification card prior to occupying a training area or range.
 - (2) The medic or TC3 Certified Soldier must have a standard aid bag and litter.
 - (3) Unit commanders or representatives must be prepared to give the grade and name of all qualified medical personnel.
- b. A litter-bearing vehicle must be on site with a driver other than the medic and capable of transporting a litter-born patient. The driver must know the quickest route to:
 - (1) The unit's aid station, if any.
 - (2) Troop Medical Clinic (when operational), Camp Gruber Building 130.
 - (3) Saint Francis Hospital.
- c. Range Control will announce current wet bulb status over the primary FM frequency when the heat category is two (GREEN) or above on an hourly basis or upon change of category as it occurs. Units within the cantonment area may contact Range Control for this information.

2-19. Emergency MEDEVAC Request

- a. Requests for medical assistance should be communicated immediately to 911. Units will notify Range Control immediately after contacting 911 to follow up with an incident report. If unable to contact 911, units must contact Range Control (918-549-6041) or FM 40.800Mhz/alt. FM 31.300Mhz) or Camp Gruber Security at 918-549-6021 to coordinate MEDEVAC requests.
- b. If MEDEVAC is requested (air or surface) unit must determine if casualty may be safely transported to the Troop Medical Clinic, MEDEVAC Helipad in the cantonment or the Ambulance Exchange Point (AXP) located at the main gate for evacuation. If casualty is deemed too critical for surface transportation, then unit must contact Range Control to give 6-digit grid location for the location of an air MEDEVAC. If necessary, unit will be instructed to assist in marking of the landing zone by smoke, vehicle headlights, or other means as required. Unit must provide Range Control with all pertinent information regarding nature, type, severity, and number of casualties. This information will also be provided in a 9-line MEDEVAC format if specifically requested by Range Control.

2-20. Ammunition and Pyrotechnics

- a. Ammunition will be stored on the range IAW AR 385-63, DA Pam 385-63, and DA Pam 385-64.
- b. Vehicle storage will be IAW published FM, TM, and DA Safety Message guidance.
- c. No unit will be authorized to fire demolitions unless a completed copy of the e581 "issue" and DD 3020 is on file at Range Control.
- d. Pyrotechnics will be used for their original intended purpose (effect) and will not be modified.
- e. A Deliberate Risk Assessment Worksheet (DD 2977) will be filled out for all ammunition and explosive activities to include storage and transportation as outlined in DA PAM 385-64.

2-21. Ammunition and Explosives Safety/Field Storage of Ammunition/Ammunition Holding Area (AHA) Procedures See Ammunition and Explosives Safety SOP in Appendix K

2-22. Misfire, Hangfire and Malfunction Procedures

- a. A misfire is a complete failure to fire. It is caused by a faulty firing mechanism or element in the propelling charge. A hangfire is a delay in the functioning of a propelling charge explosive train at the time of firing. In most cases, the delay ranges from a split second to several minutes. Thus, a hangfire cannot be distinguished immediately from a misfire. FMs and TMs for the weapon(s) concerned give specific information on the proper method of handling misfires and hangfires. Their guidance will be followed explicitly on all ranges and firing points.
- b. In the event of a misfire and hangfire that presents an immediate hazard to personnel, or a cease-fire is necessary, the OIC is responsible for ensuring:
 - (1) All personnel are relocated to a safe distance from the incident.
 - (2) Proper procedures are followed.

- (3) Technical assistance, if needed, may be requested from Range Control.
- c. A misfire of a hand grenade is extremely dangerous. Therefore, live hand grenades will not be thrown simultaneously. If there is a misfire, CEASE-FIRE immediately. Do not throw any more grenades. Evacuate personnel behind the safety berm and call Range Control.
- d. Malfunctions:
 - (1) Material involved in malfunctions or accidents, along with any evidence (components, weapon/ammunition fragments) will be carefully preserved in the position and location is occupied at the time of the incident.
 - (2) Material involved in a class A or B accident IAW AR 385-40 must remain on site until cleared by the investigating authority unless an immediate hazard to life or property is present.
 - (3) Damaged or malfunctioned guided missiles and rockets will be handled per the applicable TM and reported IAW AR 75-1.
 - (4) Notify Range control. Notification will include the following:
 - (a) Weapon system and ammunition involved.
 - (b) Lot and serial number of the ammunition and weapon involved.
- e. Range Control will notify the Oklahoma Army National Guard Safety Office of all malfunctions and misfires.

2-23. Explosives and Blasting Operations

- a. Each commander will comply with all applicable Department of Defense (DOD), federal, and state regulations concerning the use of explosives. All blasting operations on Camp Gruber will be conducted under the direction of a qualified OIC and Range Safety Officer.
- b. The OIC and Range Safety Officer will be present on the range for each blast.
- c. Anticipated blast schedule (target folder) and risk management worksheet (IAW DA PAM 385-30) will be submitted to Range Control for approval. This schedule must be submitted prior to issuance of the range (refer to FM 3-34). Range Control may limit the area covered, timing, and sequence of blasting as listed in the blasting schedule.
- d. All blasting will be conducted between sunrise and sunset.
- e. Blasting/demolitions will not be conducted on Camp Gruber when the estimated cloud cover is greater than 80 percent and the cloud ceiling is estimated at less than 2000 feet AGL.
- f. OIC/RSO requirements: See Appendix G.
- g. Communication requirements. When firing, units must maintain two means of communication with Range Control. When the range is occupied, only FM communication is required.
- h. Range operations:
 - (1) The Light Demolition Range is restricted to non-fragment producing explosives.
 - (2) The Breach Range and Light Demolition Range can be operated simultaneously with the approval from the RMA. Restrictions are outlined in Appendix A for each range and required documentation listed in appendix K.
- i. Detailed demolition/explosive limits/restrictions are listed in Appendix A.
- j. Units must request approval from Range Control to employ field expedient procedures or explosives.

2-24. Unexploded Ordnance (UXO)

- a. UXO is any explosive munitions such as a projectile, grenade, or bomb that has either been fired from a gun, propelled by a rocket, or otherwise met the requirements for arming, but has failed to detonate. Any object that appears to be a UXO will be presumed as such.
- b. UXO will not be disturbed under any circumstances. UXO will be clearly marked, not closer than ten (10) feet, and a guard will be posted until relieved by Range Control/EOD personnel. When personnel locate UXO the Range OIC must submit the following information to Range Control:
 - (1) Coordinates of the UXO.
 - (2) Number of items (rounds).
 - (3) Type of UXO (if known—artillery shell, grenade, etc.) and description.
 - (4) How item location is marked by the unit/personnel discovering the item.
 - (5) Name/grade/unit of individual reporting the UXO.
- c. In the case of grenades or other munitions that may be immediately hazardous to personnel, firing/training will be halted until qualified EOD personnel have cleared the dud.
- d. Commanders and Range OICs must brief their personnel of the danger that UXO presents, the requirement to mark the location of UXO, and to report the marked location to the commander or OIC as soon as possible.

2-25. Erratic Firing

- a. Any projectile that impacts outside of safety limits as prescribed by this regulation or as depicted on the Camp Gruber Surface Danger Zone (SDZ) map will require immediate investigation and corrective action.
- b. Any individual detecting rounds landing outside of their authorized limits or the established impact area will immediately initiate a "CEASE-FIRE-FREEZE" and contact Range Control and report the following:
 - (1) Individual identification.
 - (2) Date and time round observed.
 - (3) Location of observed round.
- c. Range Control will notify the Oklahoma Army National Guard Safety Office.
- d. The Range will be in a cease fire until the SDZ for erratic rounds is determined and investigation by RC is complete.

2-26. Collective Live Fire Ranges

- a. The Live Fire Shoot House (LFSH) is the only facility used to support collective live-fire requirements:
- b. The using unit's chain of command retains responsibility for safety on the ranges. Unit observer controllers/cadre must emphasize safety during the conduct of these ranges. Leaders enforce safety throughout the execution of the live fire event. The goal is a safe/realistic execution of the event.
- c. Using units will provide detailed risk assessments (IAW DA PAM 385-30) to Range Control prior to the collective live fire event. Additional instructions on specific risk assessments are contained in TC 7-9 (Infantry Live Fire Training) and the specific Range Packet. The Range OIC will complete and turn in to Range Control a Collective Live Fire Checklist (Appendix I in this publication) with all supporting documentation prior to the range being issued.
- d. OIC/RSO requirements: See Appendix G.
- e. Communications requirements. When firing, units must maintain two (2) means of communication with Range Control. There are no telephones located on any of the collective range facilities.
- f. Range operations.
 - (1) An approved risk assessment worksheet must be on file at Range Control prior to the collective live fire range going "hot."
 - (2) Each range must have a qualified medic with aid bag, litter, and litter-bearing vehicle with driver
 - (3) Red range flags must be flown (one from the occupied range, and one from the flagpole on Range Loop Road) while the range is occupied. Additional requirements are listed in the specific range packets.
 - (4) Helmets and hearing protection must be worn at all times by personnel on the range. Additional protective equipment (based on weapons/ammunition employed) may be required. Range Control will notify using units of additional requirements prior to issuance of the range.
 - (5) Barriers and road guards will be emplaced IAW Appendix A.

2-27. Non- Standard Live Fire Ranges

- a. Non- Standard Range Fire is the conducting of a course of fire on any standard range in a manner that exceeds or changes the purpose that the range was built to accomplish. For example: using a Zero Range for Short Range Marksmanship, Close Quarters Combat Training, Weapons Transition training, or any other Live Fire that uses an existing range for other than the standard qualification tables. Non-standard training also includes using different weapons on a range other than what was designed.
- b. Units will submit all non-standard live fire requests NLT 120 days prior to the training event to Range Control. Units must complete all of the documentation required on the Non-Standard Live Fire Checklist (Appendix J).
- c. Per DA PAM 385-63: Units will conduct live-fire exercises as part of properly identified and trained-to-standard mission essential task list (METL) tasks. Tactics, techniques, and procedures employed during the live-fire exercises must be consistent with the standards published in the applicable Army Techniques Publication (ATP); Army Tactics, Techniques, and Procedures (ATTP); mission training plan and/or battle drills. Command approval from the next higher command (Minimum BN Commander) is required for any live-fire exercise not consistent with the unit's established METL.
- d. Units must submit a memo to request approval thru Range Control IOT conduct any training outside of their established METL Tasks. Request Suspense Timeline:
 - (1) LOI, Course of Fire, Sketches and Overlays, and Special Target requirements must be submitted 120 days prior to execution.
 - (2) Risk Assessment and completed Non-Standard Live Fire Checklist must be finalized at least 30 days prior to execution.

2-28. Maneuver Training Areas

a. The Camp Gruber Military Installation Map (1:50,000) depicts the Training Areas available for use by units. All areas (less cantonment) are open for maneuver training. Several training facilities are located within TA200 and must be requested specifically. Previous Camp Gruber Maps identifying the 500-series training areas are obsolete.

b. The Cherokee Wildlife Management Area (WMA) may be used through prior coordination with the Oklahoma Department of Wildlife Conservation. Range Control must make the request at least 90 days prior to the desired dates. Cherokee WMA may be used for maneuver training only. No live fire training is allowed.

c. All brigade, battalion, and separate companies will contact Range Control prior to occupying a training area. The unit will report to Range Control for the following actions:

(1) Complete the opening form for the affected training area(s) (note: unlike the Live-Fire Range Opening/Closing Form, one (1) form can be utilized for training areas that are being used as NON-Live Fire Areas for a maximum of 3 days. Every Fourth Day the OIC will need a new Range Opening/Closing Form).

(2) Provide six-digit coordinates or map identifying physical location of the headquarters and platoons to include observation posts and patrol bases.

d. Communication. All units occupying training areas will continuously monitor FM frequency 40.800Mhz (Range Control) and make required communication checks on minimum four (4) hour intervals.

2-29. Wildlife Management and Public Hunting

a. By agreement with the Oklahoma Department of Wildlife and Conservation, portions of Camp Gruber have been designated as available for public wildlife activities on select dates during the Oklahoma Public Hunting seasons and when training areas are not reserved for military operations. Training areas available for military operations are reduced during those dates as defined in the current Memorandum of Understanding (MOU) between the Oklahoma Military Department and the Oklahoma Department of Wildlife Conservation.

b. Military operations are not allowed in training areas that are open for wildlife activities.

c. All other wildlife activities throughout the year will be based on area availability.

d. Specific requirements, to include access and area locations, are listed in the CGTC Integrated Natural Resource Management Plan (INRMP).

2-30. Smoke Operations

a. Units desiring to conduct smoke operations must provide an overlay to Range Control showing the area that will be affected. The unit will cease operations if climatic conditions result in smoke spreading beyond the overlay limits.

b. Smoke operations are prohibited in the cantonment area, enclosed spaces (i.e. tunnels/basements), and surrounding civilian highways/roads.

c. Smoke operations will not be used within 200 meters of the installation or cantonment boundary.

d. Units will contact Range Control when smoke operations commence and cease.

e. Units will wear protective masks when using HC smoke.

2-31. Military Operations in Urban Terrain (MOUT) Facilities

a. The Military Assault Course (MAC) and the Combined Arms Collective Training Facility (CACTF) require additional safety requirements that are included in the range packets.

b. Range OIC/RSO, Communications, and medical support requirements are listed in Appendix A and the specific range packets.

c. Facilities require intensive clearing procedures, using units are advised to coordinate turn-in requirements with Range Control when they are issued the facilities.

2-32. Obstacle Course

a. This facility consists of nine (9) obstacles: Tough One, Confidence Climb, Six Vaults, High Step Over, Low Belly Over, Belly Crawl, Swing Stop Jump, Incline Wall, and the Weaver. There are six (6) posts located at the north end of the obstacle course for "One Rope Bridge" operations/training.

b. Obstacles are arrayed along the east side of the Air Assault course.

c. Specific safety precautions are published in the applicable range packet.

d. FM communication and medical personnel with litter-bearing vehicle are required for use of this facility.

2-33. Land Navigation Courses (TA200 and EIB)

a. TA200 Land Navigation course is located East of cantonment. EIB Land Navigation course is located within Training Areas 103 and 104.

b. Specific safety precautions are published in the applicable range packet.

c. A safety briefing is required prior to issuance of this facility.

- d. FM communication and medical personnel with litter-bearing vehicle are required for use of these facilities.

2-34. Nuclear, Biological, Chemical (NBC) Chamber

- a. This facility consists of a building utilized for individual exposure to chemical agents (confidence chamber).
- b. Specific safety precautions are published in the applicable range packet and in Appendix A.
- c. FM communication and a medic with litter-bearing vehicle are required for use of this facility.

2-35. Use of Chemical Smoke (CS) and Riot Control Agents (RCAs)

- a. CS/RCAs are only authorized for use in the NBC chamber and certain training areas.
- b. CS/RCAs are prohibited from use within 200 meters of the cantonment area and the installation boundaries, on any firing point, and any firing range.
- c. Units desiring to use CS/RCAs outside of the NBC Chamber must coordinate with Range Control. The unit will also provide an overlay (plume cloud) detailing the scheme of intent of CS/RCA employment.
- d. Units will ensure all necessary CBRN protection measures are observed.

2-36. Ponds and Amphibious Training Events

- a. Camp Gruber has multiple ponds, rivers, streams, creeks, lakes, reservoirs and waterways in the training areas and within the cantonment area. These body of waters pose a inherit risk to personnel due to waterborne wildlife and from the general risk of swimming, fording, wading, walking, floating and crossing without proper precautions.
- b. Units with a requirement for training in any body of water on Camp Gruber are required to coordinate their training with Camp Gruber scheduling and range control prior to the event.
 - (1) Amphibious training events are required to be conducted IAW with all applicable regulations and training doctrine to include all safety procedures and safety equipment as prescribed.
 - (2) Swimming in any Camp Gruber pond, river, stream, creek, lake, reservoir or waterway is prohibited unless approved by Garrison Commander or his designee and can only be conducted as a unit training event. Approval is requested thru the Range Management Authority. Risk management must be conducted and must include a list of safety equipment that will be on hand for the training prior to the request being approval. At a minimum, life jackets, rescue floats and a throw line along with a designated lifeguard and medic will be on site during the training event. Units should in no way assume that all requests will be approved.

Chapter 3

TADSS

3-1. General

Camp Gruber has a variety of training aids, devices, simulators, simulations (TADSS) items and other training equipment available for loan or use on site. Other TADSS as needed and not currently in Camp Gruber inventory may be acquired through a Training Support Center (TSC), or possibly developed with Camp Gruber assistance. For a more detailed description of the items listed below, including quantities, contact the TADSS coordinator.

3-2. TADSS Items Available

- a. Training Aids:
 - (1) Grenade identification kit.
 - (2) Mock IEDs.
- b. Training Devices
 - (1) IED, booby trap, and anti-personnel mine simulators which generate an audible and visual effect.
 - (2) Smoke generators.
 - (3) Practice mines.
 - (4) Dummy grenade bodies (M67 frag)
 - (5) IEDES (Improvised Explosive Device Effects Simulator)
- c. Simulators
 - (1) Call For Fire Trainer (CFFT).
 - (2) Engagements Skills Trainer (EST).
 - (3) Virtual Convoy Operations Trainer (VCOT).
 - (4) Unstabilized Gunnery Trainer (UGT).
 - (5) Virtual Battlefield Simulation (VBS3)

3-3. Requesting use of TADSS

- a. Portable items. All items listed in 3-2, with the exception of EST and VCOT may be checked out as available using DA Form 2062 (Hand Receipt) on a first come, first served basis.
- b. Facilities. Simulators are considered facilities and must be requested through RFMSS. For these items, time of operation and number of personnel trained is required to be reported to the TADSS Fire Desk daily. Units will sign out facilities at Range Control (Bldg. 740).
- c. Training Aids and Devices must be directly coordinated with the TADSS coordinator.
- d. Items requiring trained operators. All simulators, simulations and most devices listed above will require a qualified operator. If requesting unit does not have a qualified operator, they must directly coordinate training through the TADSS coordinator NLT 30 days in advance.

Chapter 4

LASERS

4-1. General

a. Laser devices can seriously injure the unprotected eyes of any individual located within the laser beam. Intra-beam viewing of either the direct laser beam, or of a laser beam reflected from a mirror-like surface, will expose an unprotected eye to potential hazard or injury. This unsafe condition or situation must be avoided. The goal of laser range safety is the prevention of the accidental intra-beam viewing of a laser beam, or of laser energy, by unprotected personnel. This chapter prescribes the minimum safety procedures that must be followed when using any laser devices.

b. The operation of a laser system is restricted to specific ranges and locations. Range Control will provide a list of the approved ranges, or positions that are authorized for the conduct of a lasing operation.

4-2. Precautions for Laser Device use

a. Range OIC/LRSOs must know the Nominal Optical Hazard Distance (NOHD), as well as the NOHD-M (with magnifying optics), limit of the laser device being used. The Range OIC/LRSO will have a graphic representation of the laser range surface danger zone (LRSDZ) for the laser training being conducted, accurately posted and displayed on a Camp Gruber Training Center map, which is located at the lasing point or range.

b. Units will provide laser-safe eye protection for unit personnel as required. Night Vision Goggles (NVGs) are NOT laser-safe, and do not provide protection from a laser beam.

c. Direct viewing of the MILES laser beam from a close range must be avoided. Laser systems other than MILES will NOT be used during the conduct of any two-sided tactical training exercise.

d. The NOHDs for any laser, when in the range-finding mode, is less than the range that is achieved or that can be realized when the laser is operated in the designator mode.

4-3. Laser Firing Range Operations

a. All lasers will be regarded as a direct fire weapon. Airspace requirements for using a laser must be requested through Range Control.

b. The conduct of any lasing operation without the approved laser system eye-safe filters attached is restricted. The effects of any lasing operation will be confined to the common impact area. All lasers without Eye Safe Systems for Laser Ranges (ESSLR) devices installed are restricted to specific areas for employment. The laser blister covers, or exit ports, on all vehicles will be closed and locked any time a vehicle is being operated at a location other than those previously approved for laser use.

c. Only mission essential personnel will be at or near the laser firing point during any lasing operation.

d. Any case of a suspected eye exposure to a laser beam will be immediately reported to Range Control. Medical evacuation of the suspected injury may be required. An eye examination of the individual is required within 24 hours of an exposure to a laser beam. An Incident Report will be completed by the unit range OIC/LRSO and submitted to Range control within 12 hours of the incident.

e. Besides the specific technical instructions covering the use of a particular laser device, or of a laser simulator, the following information applies to laser operations at this training center:

(1) Any range that will employ a laser system will appoint a LRSO and any assistant LRSOs as required. All range safety personnel must be certified and have a working knowledge of laser range safety as contained in this regulation and in Chapter 18, DA Pam 385-63.

(2) The unit must have a laser safety SOP. The using unit WILL furnish a copy of this SOP to Range Control.

(3) The OIC, RSO and LRSOs must receive a specific laser range operations and laser safety briefing from Range Control before opening any range that will use a laser system.

(4) The RSO/LRSO will conduct a detailed safety briefing for all personnel concerning all specific laser operational safety issues and covering details on the laser operations to be conducted at the site. This briefing will be accomplished before the conduct of any laser operation on the range.

(5) Medical support personnel are not required to be located on a laser range. However, the proper channels for obtaining medical assistance for personnel at the range should be coordinated and identified before opening the range.

(6) The OIC/LRSO will maintain positive and continuous radio communication with Range Control.

(7) "Laser In Use" warning signs must be posted and protective barricades, as required, will be emplaced by the Range OIC/LRSO. These actions are designed to prevent unprotected personnel from moving forward of the laser firing line.

(8) A red range flag will be displayed any time a laser range is open or in use.

(9) Lasing limit markers to include left, right, minimum and maximum lasing ranges, and range to the vertical backstop must be prominently marked by the unit.

(10) An approved laser range safety card will be provided to Range Control, and will be used by the unit LRSO for obtaining the approved left and right deflection limits. Lasing operations will not be conducted without an approved laser range safety card.

(11) Any laser firing point with safety data that is different from the data as listed on the approved laser range safety card, i.e. different right or left limits, must have a separate OIC/RSO/LRSO designated for that specific laser range firing point.

(12) Emplace the laser directly over the surveyed position stake when the laser is operated in a dismounted mode. If the laser is employed from a vehicle, position the vehicle next to the position stake.

(13) Ensure that an adequate backstop is provided for all targets that will be lased. Ensure that the target area is free from specular (mirror-like) surfaces. Glossy foliage, raindrops and other natural objects are not considered to have specular surfaces. Avoid any specular surface within the authorized zone for lasing operations. OIC/LRSO will inspect target area and do a range reconnaissance observation with binoculars prior to lasing operations.

(14) The range OIC/LRSO will complete a terrain sketch depicting the sectors of fire authorized for the laser before the conduct of any laser operation.

(15) Never lase personnel, wildlife, or any specular surfaces. Never lase any targets within 30 meters of a reflective or specular surface.

(16) Cease all lasing operations if control of the laser beam is lost.

(17) Maintain a two (2) mil safety buffer below the vertical backstop and below the horizon during all lasing operations.

(18) Laser systems will not be activated until the target has been positively identified.

Chapter 5

AVIATION OPERATIONS

5-1. Purpose

Provide a brief overview of the policies, procedures, and guidance for all aviation operations at Camp Gruber Training Center.

5-2. Scope

Information in this chapter gives aircrew and ground personnel an understanding of directives and policies in order to conduct aviation operations in a safe and efficient manner.

5-3. Administrative

- a. Aircrews are responsible for complying with the procedures outlined herein and all governing regulations.
- b. Report conflicts of this publication to the Range Operations Manager at (918) 549-6048 or Katheryn.e.battles.civ@army.mil
- c. Submit request(s) for changes of this publication to the Range Operations Manager or Operations and Training Officer.

5-4. General Operations

a. The capability of rotary wing aircraft to operate from unimproved areas is recognized. With the exception of the following conditions, rotary wing aircraft may take-off and land from any area at Camp Gruber Training Center:

- (1) Any area closed by Range Control for live-fire ranges, CBRNE operations, maneuver training, para-drop operations, and/or construction sites.
- (2) Any area occupied by troops and vehicles, unless the aircraft is directly supporting an exercise or involved in a real-world MEDEVAC operation.
- (3) Any area within the Wildlife Management Area of Cherokee County.
- (4) Any training area, except cantonment, during designated hunting seasons.

b. Local flying area.

- (1) The local flying area for Camp Gruber Training Center is defined as the area located within a 20 nautical mile radius of Blue Devil LZ.
- (2) Commanders are responsible for ensuring that aircrews receive a comprehensive briefing on the local flying area, “no fly” zones, “no landing” zones, aircraft security, ramp discipline, severe weather plan, ranges, training areas, Camp Gruber boundaries, published landing zones, reporting points, and other pertinent information.
- (3) Range Control will give briefings of training activities, restricted operating zones, demolition training, UAS/Drone, and construction operations.
- (4) Aircrews are responsible for visually separating their aircraft from other aircraft operating at Camp Gruber.

5-5. Communication

Camp Gruber has three assigned frequencies that are monitored during operational hours. For Aviation purposes, those frequencies are FM 41.100 (primary), FM 40.800 (secondary), and FM 31.300 (alternate).

a. The primary frequency is monitored on a dedicated radio at Range Control. The secondary and alternate frequencies broadcast to all ranges. In order to avoid unnecessary radio traffic, secondary and alternate frequency(ies) should only be utilized in the event of lost communications with Range Control from the primary frequency.

b. Aircraft will contact Range Control no less than five nautical miles out from Camp Gruber in order to confirm open/closed airspace and provide the minimum information:

- (1) Aircraft call sign or tail number
- (2) Number and type of aircraft in chalk
- (3) Number of personnel on board
- (4) Entry checkpoint
- (5) Intended training location

c. If Range Control is not operational, aircraft will use primary frequency to make advisory traffic calls.

d. Units will request separate frequency(ies) for internal command and control through the appropriate channel(s) prior to arriving at Camp Gruber.

5-6. No Fly Zones

The following areas are considered to be “No Fly” zones and will not be over-flown below an altitude of 1500’ AGL. Other areas may be designated by the Plans, Operations, and Training Division on an as needed or temporary basis.

a. **Braggs, OK**

Grid area defined within coordinates UV0054949330, UV0142749318, UV0138448421, and UV0058348416

b. **Ranger House**

Grid UV1311060462 with a one (1) Kilometer radius

c. **Greenleaf State Park**

Grid area defined within coordinates UV0027844984, UV0430745167, UV0411844214, and UV0302743350.

5-7. Noise Abatement Areas

The following areas are considered to be “Noise Abatement” areas and will not be over-flown below an altitude of 500’ AGL. Other areas may be designated by the Plans, Operations, and Training Division on an as needed or temporary basis:

a. **Hilltop 903** (between Muskogee-Davis Airfield and Camp Gruber)

Grid area defined within coordinates TV9332748012 with a one and a half (1 ½) kilometer radius.

b. **Lake Tenkiller**

Grid area defined within coordinates UV1727051352, UV2002749377, UV1296541781, and UV1095943992.

5-8. Entry/Exit Points

NAME	GRID COORDINATE
GATE 16	UV0302743350
WILD HORSE	UV0772959980
PUMPKIN CENTER	UV0756854194
AMPHIB LZ	UV0460446800
SICILY GATE	UV0065051072

5-9. Landing Zones

NAME	GRID COORDINATE
AMBUSH	UV0360057500
AMPHIB	UV0460446800
ANTHONY	UV0250148703
ASSAULT	UV0157058430
BLUE DEVIL	UV0287350286
BROWNOUT	UV0607751997
CACTF	UV0422350392
CENTRAL	UV0222257924
CHAPEL	UV0084550310
CHEROKEE	UV0438160876
CHOCTAW	UV0639244777
HILLTOP	UV0560059180
HODGE	UV0249148717
HUNTER’S CAMP	UV0610055027
MEDEVAC	UV0077050130
PINACLE	TV9977457146
PRAY RANCH	UV0435349454
PUMPKIN CENTER	UV0604053960
RAINBOW	UV0394047600
RANGE CONTROL	UV0248249984
RAPPEL	UV0247150390
ROOFTOP	UV0604653967
THUNDERBIRD HOUSE	UV0470249200
TRACK	UV0084550310

5-10. MEDEVAC PAD

a. The pad is situated to the east of the Troop Medical Clinic (TMC) which is located at building 130. The Grid Coordinate is UV0077050130.

b. Lights can be activated from aircraft by tuning to VHF 122.800 and keying the mic five (5) times and deactivated by keying the mic seven (7) times.

5-11. Ramp Discipline

- a. The speed limit around aircraft is 5 mph.
- b. All vehicle antenna(s) will be lowered and secured when operating within 50' of aircraft.
- c. Smoking is prohibited within 50' of aircraft and fuel trucks.
- d. Prior to parking, all weapon systems will be cleared and stowed.

5-12. Weather

- a. Camp Gruber does not have internal weather capabilities. Weather Support will be utilized via data obtained from the National Oceanic Atmospheric Administration (NOAA). Weather observations will be gathered by Range Control via the internet at www.noaa.gov or telephonically at 1-800-Wx-BRIEF utilizing the Muskogee-Davis Regional Airport (KMKO) identifier.
- b. Aircrews should obtain official weather brief(s) IAW the Army Flight Handbook.
- c. All visiting units should maintain a severe weather "Scatter Plan." Camp Gruber does not have any chains or mooring points.

5-13. Maintenance Test Flights

Test flights will be performed in the vicinity of LZ Hodge (Assault Strip), Muskogee-Davis Regional Airport, or east of Camp Gruber above 1000' AGL. If conducting test flights in the vicinity of LZ Hodge, aircrews will establish and maintain communication with Range Control in order to deconflict route(s).

5-14. Fire Training

- a. There are several water pick-up sites (WPS) fire training sites that have been approved for use with the lightweight, flexible and portable water delivery system for helicopters on wildfires.

Water Pick-up Sites (WPS)		Fire Training Sites	
LAW Pond	UV0365551822	Anthony LZ	UV0250148703
Lunar Pond	UV0425052960	Brownout LZ	UV0607751997
MPMG Pond	UV0195254227	Dragon FTS	(IVO) UV0623048900
Reservoir Pond	UV0354753278	MPMG Range Fire Break	(IVO) UV0195254227
Zero 2 Pond	UV0471151442	North Hill FTS	(IVO) UV0417060240
		Rainbow LZ	UV0394047600
		South Hill FTS	(IVO) UV0482046480

- b. Aircraft will coordinate with Range Control prior to begin fire training operations in order to deconflict routes.
- c. At no point will aircraft be within 500' of persons and/or watercraft when occupying a WPS.
- d. Aircraft will not drop water at FTS if the site is occupied by personnel and/or equipment.
- e. MPMG Range Fire Break FTS – aircraft will only drop water in perimeter north of fire break. At no time will water be dropped on the firing positions, automated targetry, buildings, and/or signs.
- f. Units wishing to conduct fire training operations at location(s) other those listed above must receive approval from the Range Operations Manager 90 days prior to execution date.

5-15. Sling Load Operations

Aircraft carrying sling loads shall not fly over buildings, ranges with automated targetry, training areas with troop concentrations, or construction sites.

5-16. Rappel Operations

Units wishing to conduct Rappel Operations at location(s) other than Rappel LZ must receive approval from the Range Operations Manager 90 days prior to execution date.

5-17. Para-drop Operations

Units wishing to conduct Para-drop operations must receive approval from Range Management Authority (RMA) 90 days prior to execution date.

5-18. Low-Cost Low Altitude Drop Operations

Units wishing to conduct Para-drop operations must receive approval from Range Management Authority (RMA) 90 days prior to execution date.

5-19. Remain Over-Night (RON)

Chapel LZ and Blue Devil Heliport are the primary RON locations. Units wishing to RON at a different location must request approval from Range Operations Manager no less than 90 days prior to execution date.

5-20. Air Traffic Control (ATC)

ATC Operations is considered a non-standard training event and will require approval from the RMA, Operations and Training, and State Safety Office.

5-21. Unmanned Aircraft Systems (UAS) Operations

All UAS and Drone Operations require approval from the Operations and Training Division through the RMA at least 72 hours prior to the start time.

- a. Military UAS will submit request(s) for operation via "Small Unmanned Aerial Systems (SUAS) Mission Request Form," per applicable equipment Technical Manual (TM).
- b. Civilian UAS will submit request(s) for operation via Range Control Form 16-009 located in Appendix F of this publication.

5-22. UAS Day Operations

- a. Day operations is determined as the official hours of sunrise to sunset as determined by weather support data obtained from NOAA or 1-800-Wx-BRIEF.
- b. The following are the minimum weather requirements for day operations:
 - (1) Minimum cloud ceiling of 1500' AGL.
 - (2) Minimum horizontal visibility of three (3) statute miles.
- c. Unrated Operators and Off-the-shelf Drone Operators are only permitted to conduct operations during daylight hours.

5-23. UAS Night Operations

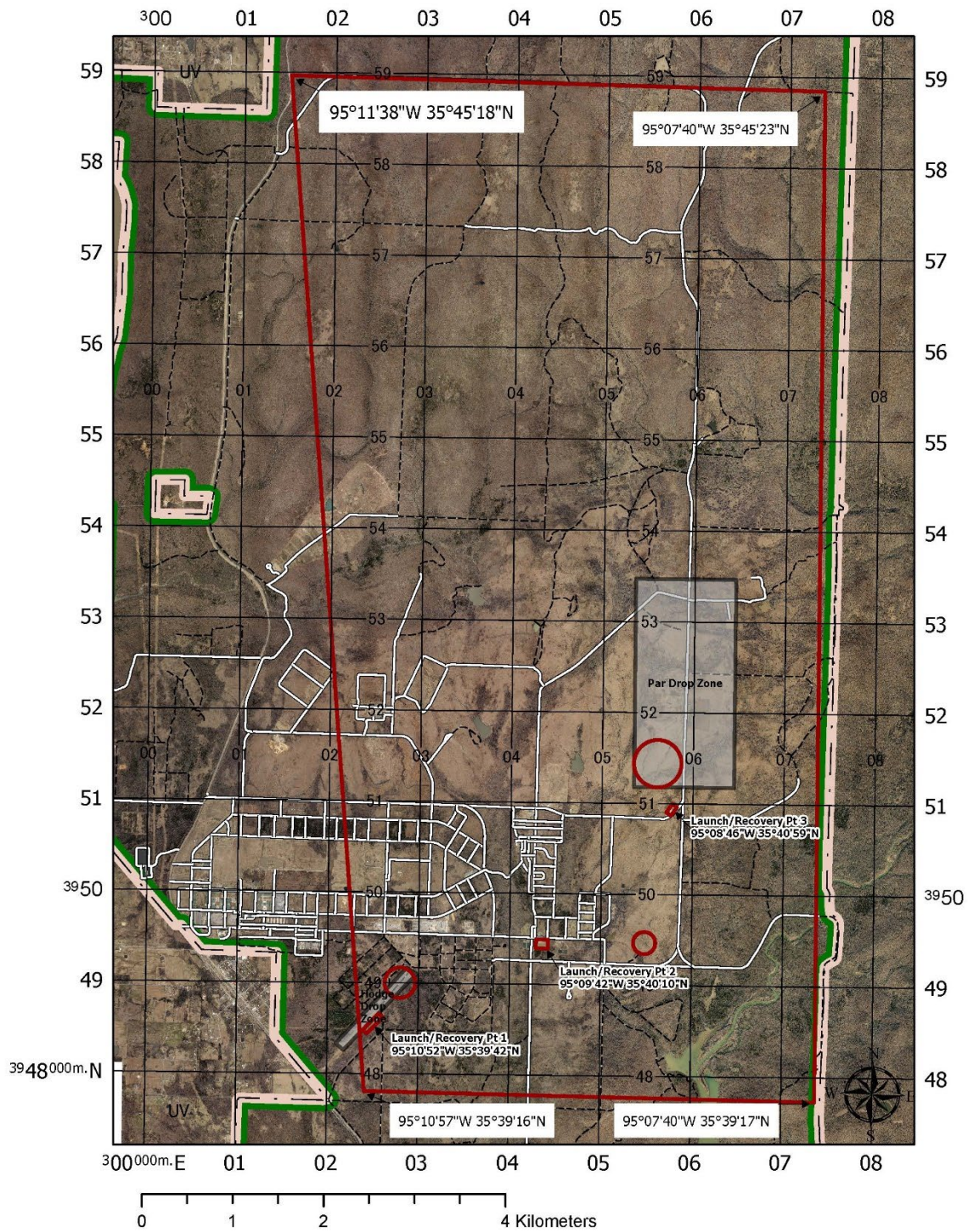
- a. Night operations is determined as the official hours of sunset to sunrise as determined by weather support data obtained from NOAA.
- b. The following are the minimum weather requirements for night operations:
 - (1) Minimum cloud ceiling of 2000' AGL.
 - (2) Minimum horizontal visibility of five (5) statute miles.

5-24. UAS Operations Requirements

Areas approved for UAS operation(s) will have the same requirements as Ranges and Training Areas.

- a. OIC and RSO. See Appendix G for requirements.
- b. Medical Requirement.
- c. Approved and signed deliberate risk assessment.
- d. Copy of the applicable TM for military aircraft or Owner's Manual for civilian aircraft.
- e. Approved SUAS Mission Request Form for military aircraft or Range Control Form 16-009 for civilian aircraft.

UAS Training Area



Range and Training Facilities
APPENDIX A
(Ranges Listed by RFMSS Number and Nomenclature)

Live Fire Ranges

R0150 KD RNG	Page A-3
R0300 MG RNG MULTIPURPOSE	Page A-6
R0400 SNIPER RANGE	Page A-9
R0600 RNG WEST 5.56 ZERO	Page A-11
R0900 PISTOL RNG 9MM/45/38	Page A-13
R1100 RNG EAST 5.56 ZERO	Page A-15
R1300 MRF1 QUAL RNG 5.56	Page A-17
R1600 M203 GL TPT RNG	Page A-19
R2100 MORT SUBCAL-SRTR (FP1&FP2)	Page A-21
R2201 HAND GREN LF RNG	Page A-24
R2300 MRF2 QUAL RNG 5.56	Page A-26
R2600 RNG 260 5.56 ZERO (Zero 2)	Page A-28
R2900 LIGHT DEMO RNG	Page A-30
R3100 TOW LF TPT RNG	Page A-32
R3200 MK19 MG TPT RNG	Page A-34
R4800 BREACH RNG	Page A-36
LFSH0 LIVE FIRE SHOOTHOUSE	Page A-38

Non-Live Fire Ranges

IED01 IED DEFEAT LANE	Page A-41
R1800 HAND GREN QUAL RNG	Page A-43
R2001 GAS CHAMBER	Page A-45
R3800 RAPPEL TOWERS	Page A-47
R3900 OBSTACLE CRS	Page A-48
R4100 LAND NAV CRS EIB	Page A-50
R4200 MOUT CACTF	Page A-52
R4300 MOUT MAC	Page A-54
R4500 LAND NAV CRS T200	Page A-56
RPP01 PUGIL PIT	Page A-58
R4700 WTT Lanes	Page A-59
DIG SITE	Page A-61
RTOWR TOW MILES	Page A-63

Range Opening Closing Procedures

OIC will sign for the Range from Range Control. OIC will ensure they have a copy of their DRAW, daily Range Opening Sheet and Range Clearance Sheet (OIC portion completed prior to requesting to clear the range).

- a. OIC will Inform (Radio, Phone) Range Control when unit has occupied the Range.
- b. OIC will call Range Control and request a "HOT" time.
- c. OIC will ensure that hourly Radio checks for Live Fire Ranges are made and that the radio is always monitored. (every four hours for Non-Live Fire Ranges).
- d. OIC will request a "COLD" time from Range Control when training is complete.
 - (1) OIC will furnish Range Control with quantity and type of ammunition fired on the Range.
 - (2) OIC will furnish Range Control with total number of personnel on site and that were trained.
- e. OIC will inform Range Control when Range is ready to be cleared and request a clearing time.
- f. OIC will inform Range Control when unit has unoccupied the Range.
- g. OIC will turn in all equipment/ items issued for the Range.

Live Fire Ranges

R0150. Safety precautions

KD RNG (Known Distance Range)

- a. References:
 - (1) TC 3-22.9.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) Specific TM and FM for the weapon being utilized.
- b. Location: UV01615182
- c. Description and Capacity: This range is used to train individual soldiers on the skills necessary to align the sights and practice basic marksmanship techniques against stationary targets. The range is designed for training shot grouping and zeroing exercises with the M16 and M4 series rifle. This range has 32 firing points and firing lines at 100m, 200m, 300m, 400m, and 500m. Targets are mounted on lifter type frames. Ammunition authorized for use on this range is 5.56mm. This range is also used for Squad Designated Marksmanship (SDM) training, and certain competition shooting matches for which 9mm and 7.62mm ammunition may also be fired and is subject to approval by Range Management Authority no less than 90 days prior to the day of the training event. Authorized DODICs are A058, A059, A062, A136, A170, A171, A191, A362, A363, AA11, AA33, AA49, AA85, AB57, AB58, AC20, AC21.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. Using unit must provide two (2) communication sources. No additional sources are located on the range. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Range flags (day) or red beacon lights (night/limited visibility) will be flown from the Known Distance Range flagpole and from the flagpole on Range Loop Road.
 - (3) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (4) OIC must have a minimum grade of E6. Safety Officers must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Officer in Charge and Range Safety Officers will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) All personnel on the firing line, 55 meters to each side, and within 12 meters to the rear of the firing line will wear approved single hearing protection.
 - (3) The target lifter area requires an E5 or above who is responsible for operations and safety in that area.
 - (a) Communications must be established and maintained between the OIC/RSO on the firing lines and the RSO in the target lifter area.
 - (b) Communication requirements are the using unit's responsibility.
 - (c) NO EQUIPMENT OR VEHICLES WILL BE FORWARD OF THE FIRING LINE.
 - (d) NO EQUIPMENT OR VEHICLES WILL BE STAGED ON THE ROAD WHERE THE LIFTERS ARE LOCATED.
 - (4) Target lifter area NCO is responsible for the safety of the target lifter operators.
 - (a) This includes but not limited to maintaining command and control of operators staying within the safety limits in the lifter area.
 - (b) North Safety boundary during course of fire is identified by a yellow stripe (Do Not Cross during Live Fire).
 - (c) West Safety boundary of the lifter area is identified by a red line (End of Range).
 - (d) All target lifter personnel will enter the lifter area using one of the three steps painted yellow. Entry is located on the east, center and west of the Lifter area.
 - (e) THE LIFTER AREA RSO AND OPERATORS ARE NOT AUTHORIZED TO LEAVE THE SAFETY AREA DURING COURSE OF FIRE. THE OIC INSTRUCTS CEASE FIRE AND CLEARS THE FIRING LINE AND RELAYS TO THE LIFTER AREA RSO WHEN ABLE TO LEAVE THE SAFETY AREA.
 - (5) No other firing other than that stated in paragraph c. above can be conducted on this range.
 - (6) 9mm firing is restricted to the 100M fire point only. Units will request through Range Control to fire any closer than the 100M firing point.

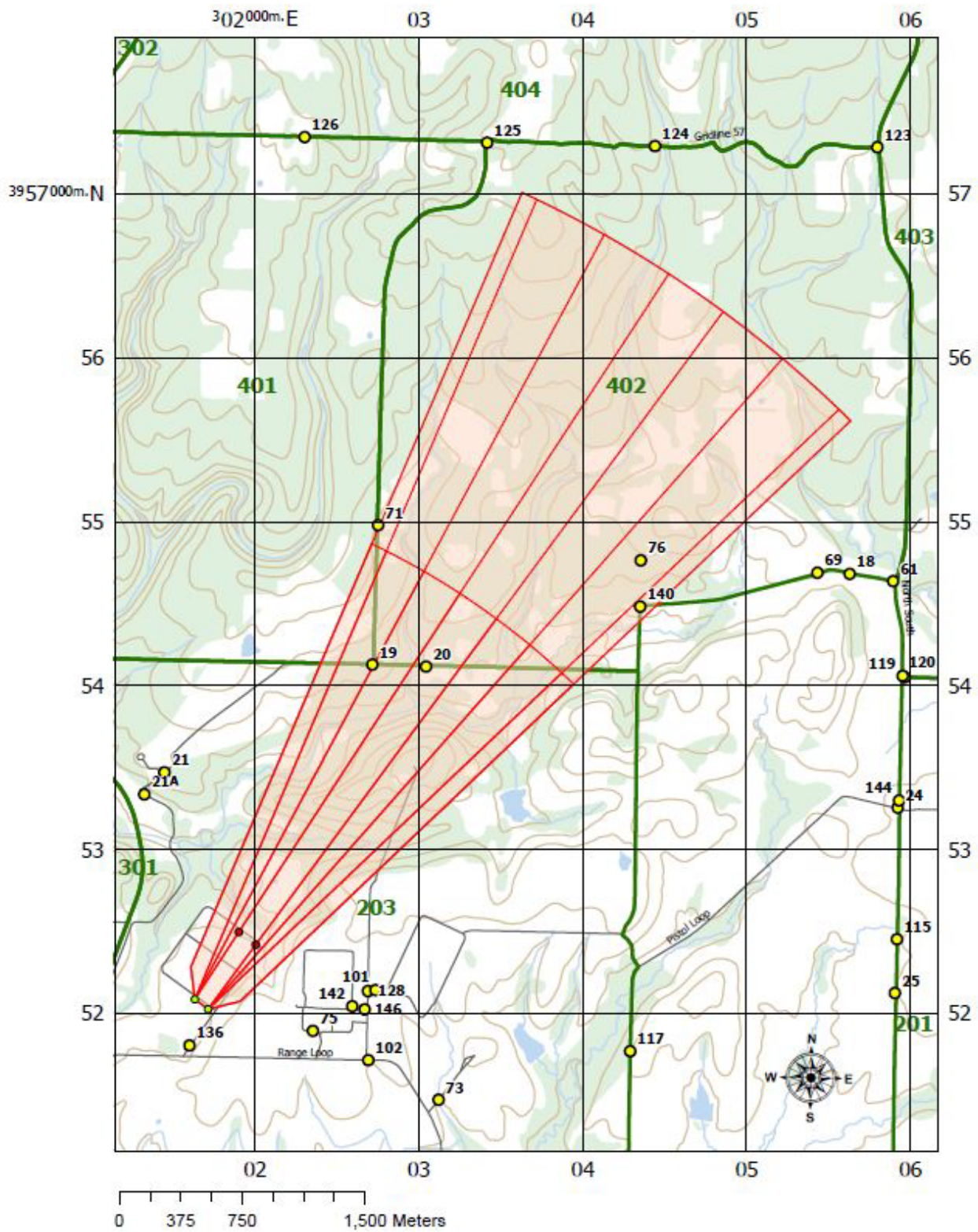
g. Road Guard Requirements: None.

h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).

i. Range(s) closed during firing: The firing of 7.62 ammunition closes MPMG, Zero West and MFR1.

Access to MPMG will be closed at range loop road and access to MFR1 and Zero W will be closed at the entrance to those ranges. Use of M855A1 5.56mm AB57 and AB58 closes access to Zero W.

Known Distance Range - R0150



R0300. Safety precautions

MG RNG MULTIPURPOSE (Multi-Purpose Machine Gun Range)

- a. References:
 - (1) TC 3-22.10.
 - (2) TC 3-22.27
 - (3) TC 3-22.65
 - (4) TC 3-22.68.
 - (5) AR 385-63.
 - (6) DA Pam 385-63.
 - (7) Specific TM and FM for the weapon being utilized.
- b. Location: UV0147253591.
- c. Description and Capacity: This range is used to train and test soldiers on the skills necessary to engage targets with the M249 SAW, M60 MG, M240 MG, M2 MG, MK19 GMG, M320 and M24 Sniper Rifle. Range may also be used for Squad Designated Marksman (SDM) training with the M16/M4 series rifle. Range consists of eight (8) firing points, each with a 10 meter zero. The M2 and MK19 are restricted to lanes 2 through 5 only; the M24 Sniper course of fire and the use of A191 is on lanes 6 and 7. .50 caliber is restricted to lanes 2-5 only. 7.62mm ammunition may not be used on lane 1. Targetry, depending on weapon type, consists of stationary infantry targets, stationary armor targets, and moving armor targets. 5.56mm and 7.62mm MGs engage targets at 100, 200, 300, 400, 500, 600, 700, and 800 meters. Additional targets are positioned at 1100 and 1500 meters for the M2 and MK-19, 900 and 1000 meters for the M24. Ammunition authorized for use on this range is 5.56mm, 7.62mm, .50 caliber, and 40mm (TP only). The primary purpose of Aviation Gunnery is to train units during live fire exercise to operate, engage targets, and practice target discrimination in a non-urban environment. The range targetry utilized during training can register hits with LIVE rounds or stationary targets can be emplaced. **HIGH EXPLOSIVE AMMUNITION IS PROHIBITED ON THIS RANGE.** Authorized DODICs on this range are A058, A059, A062, A064, A128, A130, A131, A136, A143, A151, A152, A163, A164, A165, A168, A170, A171, A191, A552, A554, A555, A557, A602, AA11, AA33, AA37, AA85, AB56, AB57, AB58, AB66, AB73, AB79, AB86, BA12, BA30, B519.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. A radio system is in the control tower for one frequency. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Only Range Control personnel qualified to maintain target mechanisms are authorized to proceed down range to repair targetry.
 - (3) Range flags (day) or red beacon lights (night/limited visibility) will be flown from the MPMG Range flagpole and from the flagpole on Range Loop Road.
 - (4) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) For all weapon systems except MK19, OIC must have a minimum grade of E6, and Safety Officer must have a minimum grade of E5.
 - (6) For MK19 fire, OIC must have a minimum grade of E7, and Safety Officer must have a minimum grade of E6.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) Units will conduct a zero exercise per the applicable FM prior to conducting transition fire with the M2 or M60/M240 MGs.
 - (3) Night Firing: Prior to any night firing on the MPMG range, units will emplace each weapon and have a range card drawn before dark to ensure firers do not fire across adjacent lanes.
 - (4) Each firing point utilized on the firing line will have a dedicated Assistant Range Safety Officer (ARSO) to ensure the weapon is operational, to assist the gunner in the application of remedial action when necessary, to observe for any unsafe condition, to ensure the gunner fires only in his/her assigned lane, and to prevent injury to personnel.

(5) For all weapon systems except MK19, personnel on the firing line, 55 meters to each side, and within 12 meters to the rear of the firing line will wear approved single hearing protection.

(6) For MK19 fire, personnel on the firing line and within a 20-meter radius of each weapon will wear approved protective helmets, body armor without plates (i.e., FLAK Jacket, IOTV, IBA, MTV, PASGT), single hearing protection, and eye protection.

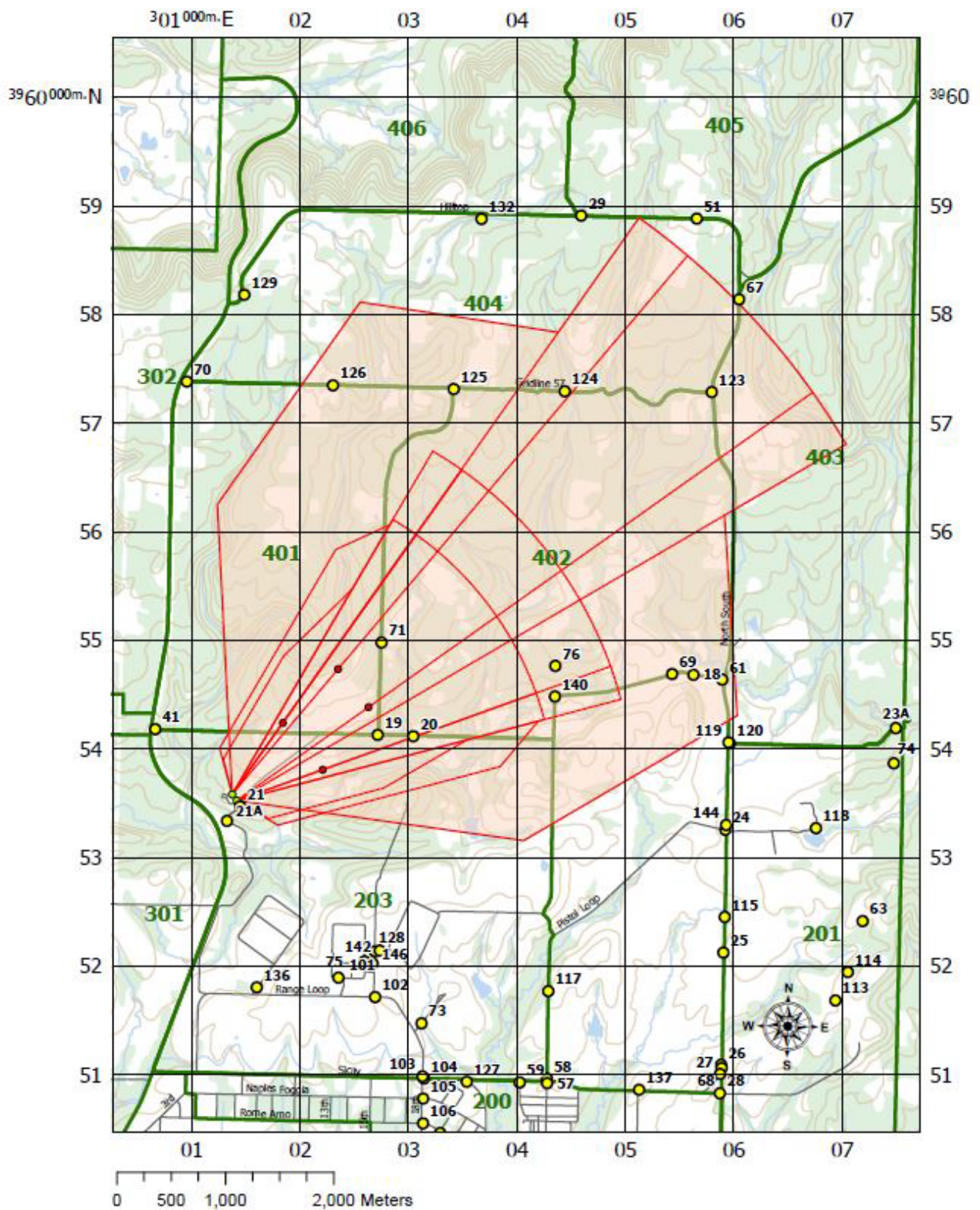
(7) Aviation unit's conducting Table II will develop a detailed written training plan, which will be submitted to Range Control for coordination/approval prior to arrival of the using element. This plan will have a mission scenario which addresses the following:

- (a) Maneuver plan.
 - i. Flight plan and orientation of aircraft.
- (b) Weapons and ammunition to be used.
- (c) Command, Control, and Communications plan.
 - i. OIC, RSO and OC's will be always on site.
 - ii. At no time during training will the aircraft have moving propellers.
 - iii. All personnel will go thru a communication brief.

(8) Units requesting to conduct mounted firing operations will develop a detailed written training plan, which will be submitted to Range Control for coordination/approval prior to arrival of the using element. This plan will have a mission scenario which will address the following:

- (a) Maneuver plan.
- (b) Vehicle type.
- (c) Weapons and ammunition to be used.
- (d) Command, Control, and Communications plan.
 - iv. OIC and RSO's will be always on site.
 - v. All vehicles will be double chocked while on the firing point.
 - vi. All personnel will go thru a communication brief.
- g. Road Guard Requirements: None.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing:
 - (1) M16/M4/M249/ MK19/: None.
 - (2) M240/M24/M2: Buddy Team LF.

Multi-Purpose Machine Gun Range - R0300

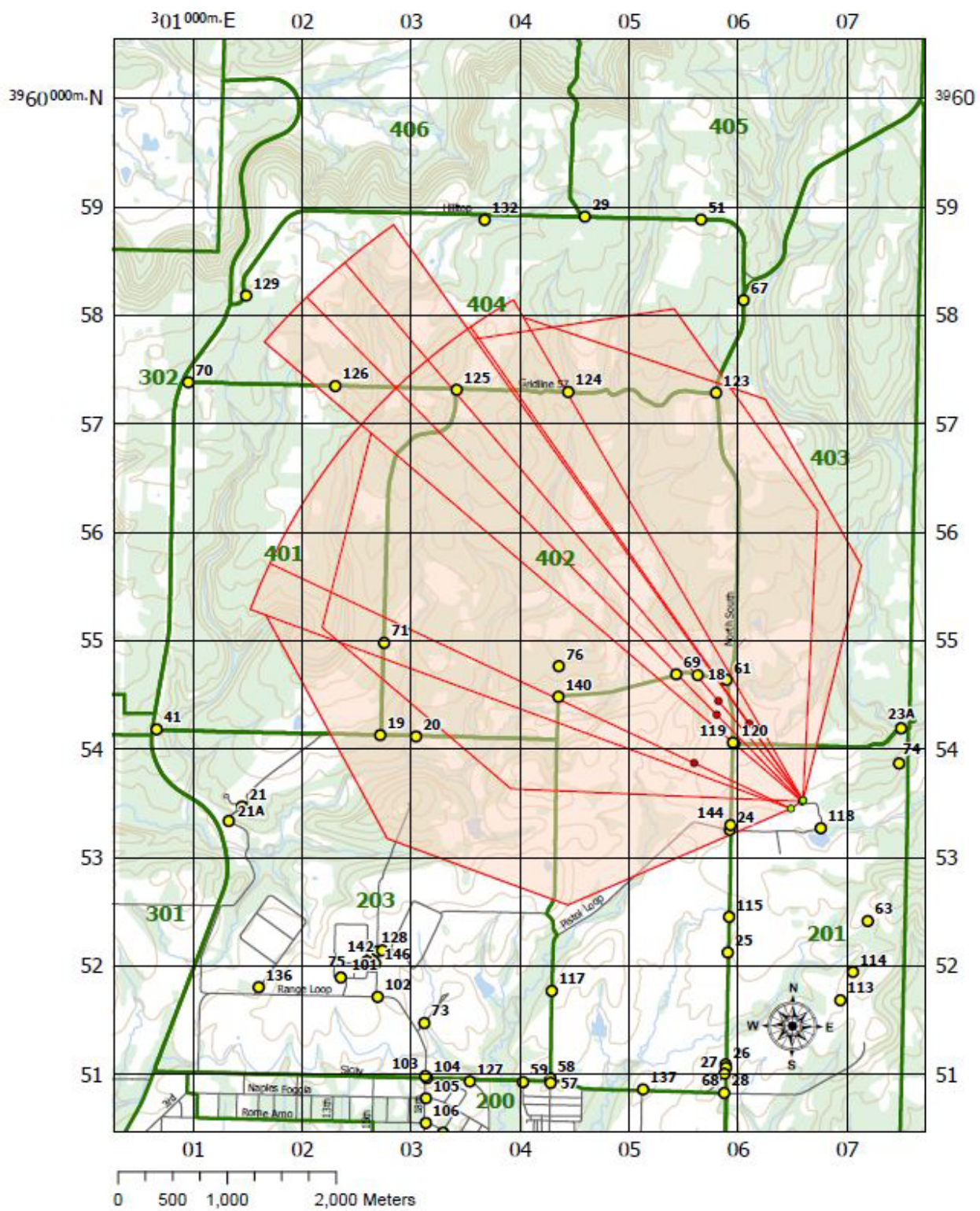


R0400. Safety precautions

SNIPER RANGE

- a. References:
 - (1) TC 3-22.10
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) Specific TM and FM for the weapon being utilized.
- b. Location: UV0659053464.
- c. Description and Capacity: This range is used to train and test soldiers on the skills necessary to detect, identify, engage, and defeat stationary infantry targets and stationary armor targets in a tactical array. Weapons/ammunition authorized for use on this range are M24/7.62mm and M85, M107, M110/.50 cal. **All .50 Cal and 300 Win mag firing will be restricted to lane 4 and 5 only.** Range may also be used for Squad Designated Marksman (SDM) training with the M16/M4 series rifle (5.56mm). Targetry must be coordinated with Range Control for placement and operation prior to drawing the range. Authorized DODICs are A058, A059, A062, A136, A170, A171, A191, A552, A553, A554, A555, AA11, AA33, AB43, AB57, AB58.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. Using unit must provide two (2) communication sources. No additional sources are located on the range. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Only Range Control personnel qualified to maintain target mechanisms are authorized to proceed down range to repair targetry.
 - (3) Range flags will be flown from the Sniper Range flagpole and from the flagpole on Range Loop Road.
 - (4) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) OIC must have a minimum grade of E6. RSO must have a minimum grade of E5.
- f. Special Instructions:
 - (1) OIC and RSO will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) **All .50 Cal firing will be restricted to lane 4 and 5 only.**
 - (3) All personnel on the firing line, 55 meters to each side, and within 12 meters to the rear of the firing line will wear approved single hearing protection.
 - (4) Units using this range to conduct tactical operations (not field fire) are responsible to certify that all Observer/Controllers (OCs) are knowledgeable and understand the safety policies and procedures for this range. A memorandum will be submitted to Range Control with the OC's name, grade, SSN last 4, and unit of assignment with the Range Safety Officer's signature block prior to issue of the range.
 - (5) Units using this range to conduct tactical operations (not field fire) will develop a detailed, written training plan to be submitted to Range Control for coordination/approval prior to arrival of the using element. This plan will have a mission scenario which addresses the following areas:
 - (a) Maneuver and fire support plan.
 - (b) Weapons, ammunition, pyrotechnics/smoke and chemicals to be used.
 - (c) Command, control, and communications plan.
 - (d) Training areas/facilities required.
 - (e) Targetry required.
 - (f) Safety plan.
 - (g) Observer/controller plan.
 - (6) Overhead firing techniques will not be conducted on this range.
- g. Road Guard Requirements: None.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: Light Demo, TOW Live Fire, Breach and Buddy Team..

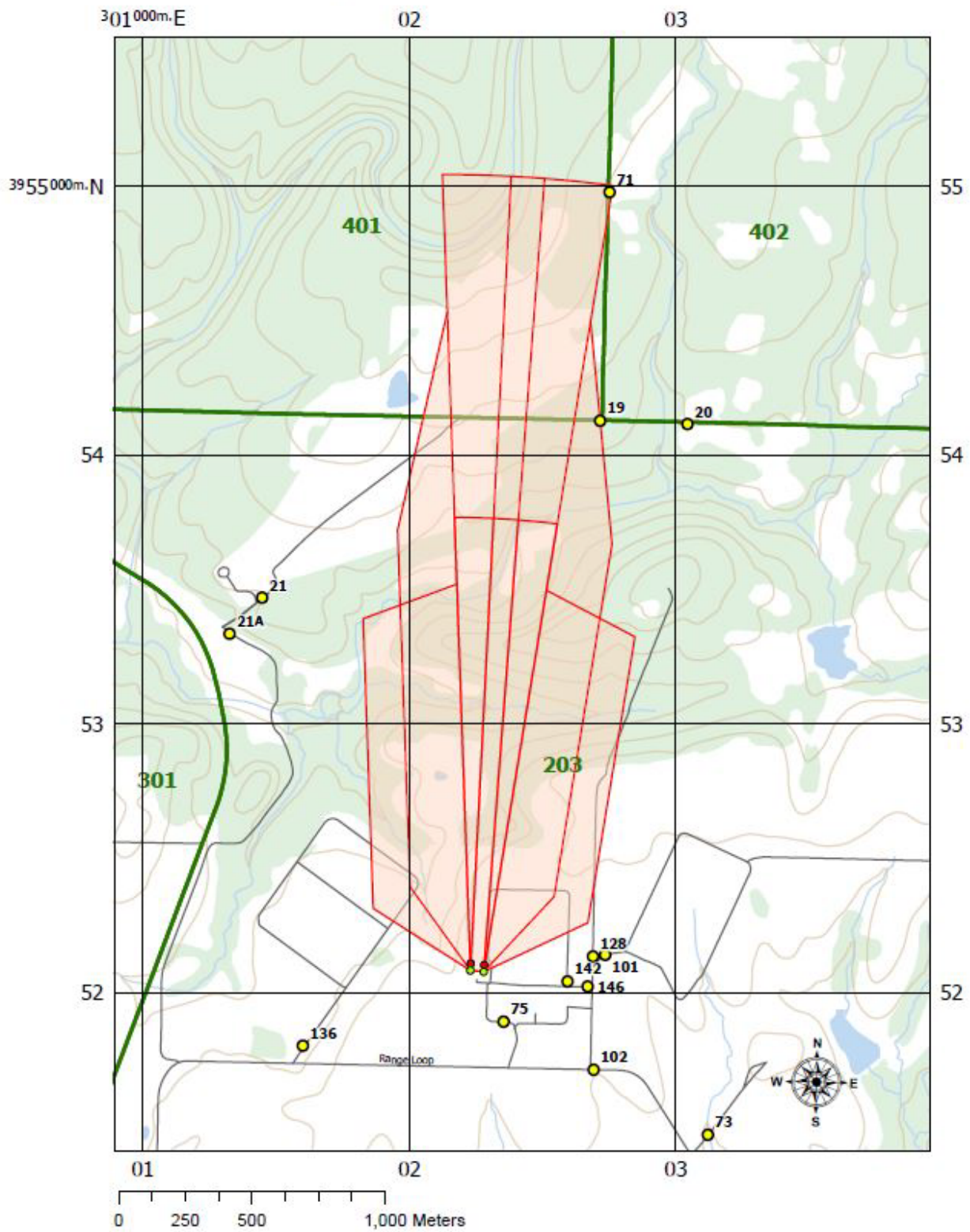
Sniper Range - R0400



R0600. Safety precautions**RNG WEST 5.56 ZERO (Zero West Range)**

- a. References:
 - (1) TC 3-22.9
 - (2) FM 3-22.68.
 - (3) AR 385-63.
 - (4) DA Pam 385-63.
 - (5) Specific TM and FM for the weapon being utilized.
- b. Location: UV0225252083.
- c. Description and Capacity: This range is used to train individual soldiers on the skills necessary to align the sights and practice basic marksmanship techniques against stationary targets. The range is designed for training shot grouping and zeroing exercises with the M16 and M4 series rifle as well as light crew served machine guns (5.56mm only). This range has 17 firing points. Targets are mounted on fixed frames. This range is used for rifle 25 meter zero, and Short-Range Marksmanship (SRM). Range may also be used for 9mm alternate pistol qualification. Weapons/ammunition authorized for use on this range are M16 and M4 series/5.56mm, M249/5.56mm, M9/9mm, and M1200 12Ga. Shotgun. Allowable DODICs are A011, A058, A059, A062, A064, A071, A362, A363, AA16, AA33, AA49, AA51, AA81, AB56, AB57, AB58, AC20, AC21.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. A radio system is in the control tower for one frequency. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Target frame height will not exceed 48 inches from the ground for each firing point being utilized.
 - (3) Range flags (day) or red beacon lights (night/limited visibility) will be flown from the Zero West Range flagpole and from the flagpole on Range Loop Road.
 - (4) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) OIC must have a minimum grade of E6. Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) All personnel on the firing line, 55 meters to each side, and within 12 meters to the rear of the firing line will wear approved single hearing protection.
- g. Road Guard Requirements: None.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: KD Range. M855A1 5.56mm closes.

Zero West Range - R0600

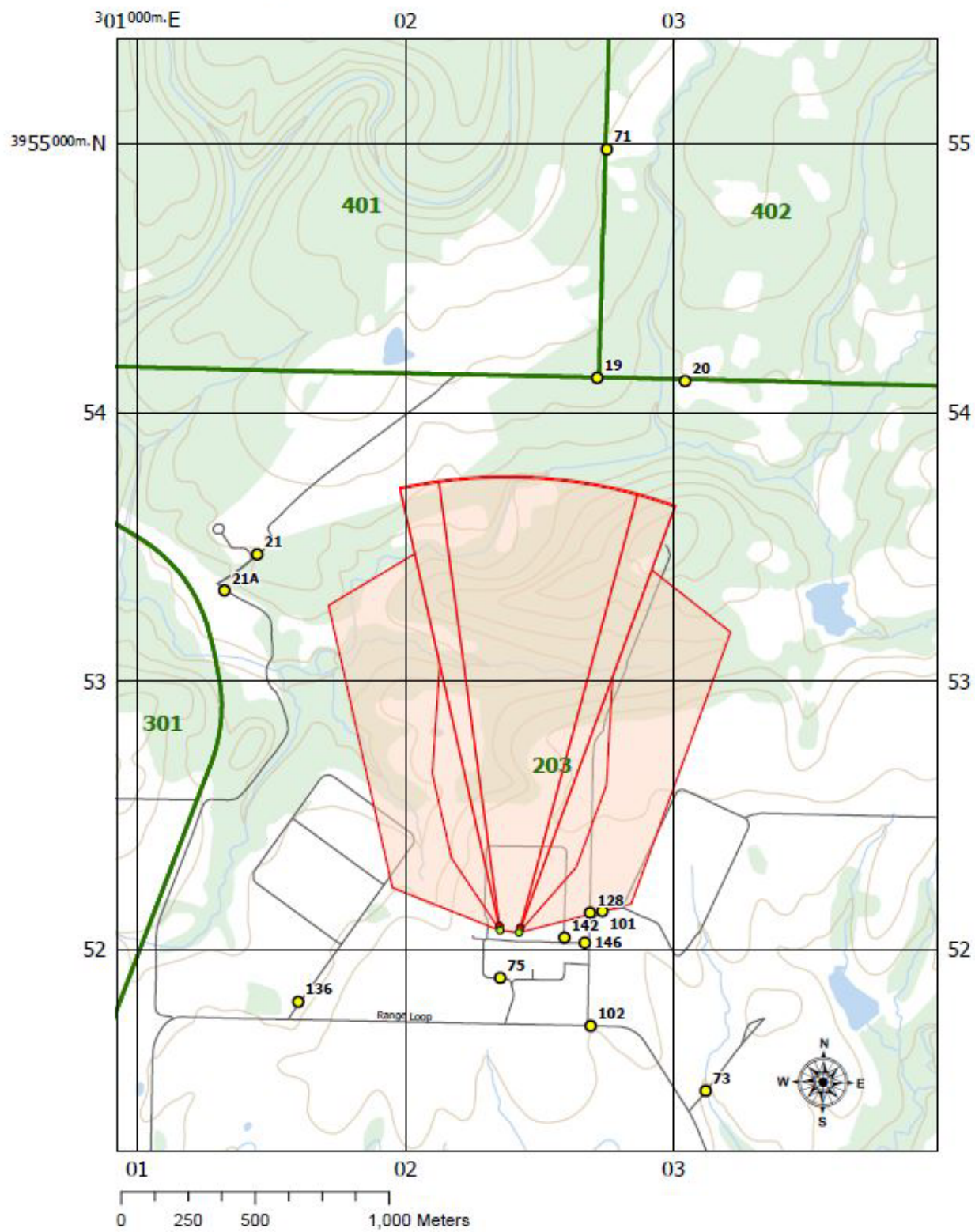


R0900. Safety precautions

PISTOL RNG 9MM/45/38 (Combat Pistol Qualification Range)

- a. References:
 - (1) TC 3-22.9.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) Specific TM and FM for the weapon being utilized.
- b. Location: UV0238252065.
- c. Description and Capacity: This range is used to train and test soldiers on the skills necessary to detect, identify, engage, and defeat stationary infantry targets in a tactical array. The complex satisfies the training and qualification requirements of the 9mm, .38 caliber, and .45 caliber pistols. This range has ten (10) lanes with pop-up silhouette targets located at 10, 13, 16, 17, 23, 27, and 31 meters in each lane. Targets are electrically activated from the range tower. Weapons/ammunition authorized for use on this range pistol/.22 cal (short & LR), 9mm, .38 cal, and .45 cal. Allowable DODICs are A084, A086, A093, A095, A363, A400, A401, A402, A475, A480, A481, A483, AA49, AB45, AC20, AC21.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. A radio system is located in the control tower for one frequency. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Only Range Control personnel qualified to maintain target mechanisms are authorized to proceed down range beyond the firing line during range operation. Range Control must approve any deviation of this policy.
 - (3) Range flags (day) or red beacon lights (night/limited visibility) will be flown from the Pistol Range flagpole and from the flagpole on Range Loop Road.
 - (4) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) OIC must have a minimum grade of E6. Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) All personnel on the firing line, 55 meters to each side, and within 12 meters to the rear of the firing line will wear approved single hearing protection.
- g. Road Guard Requirements: None.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: KD Range, MRF1.

Pistol Range - R0900

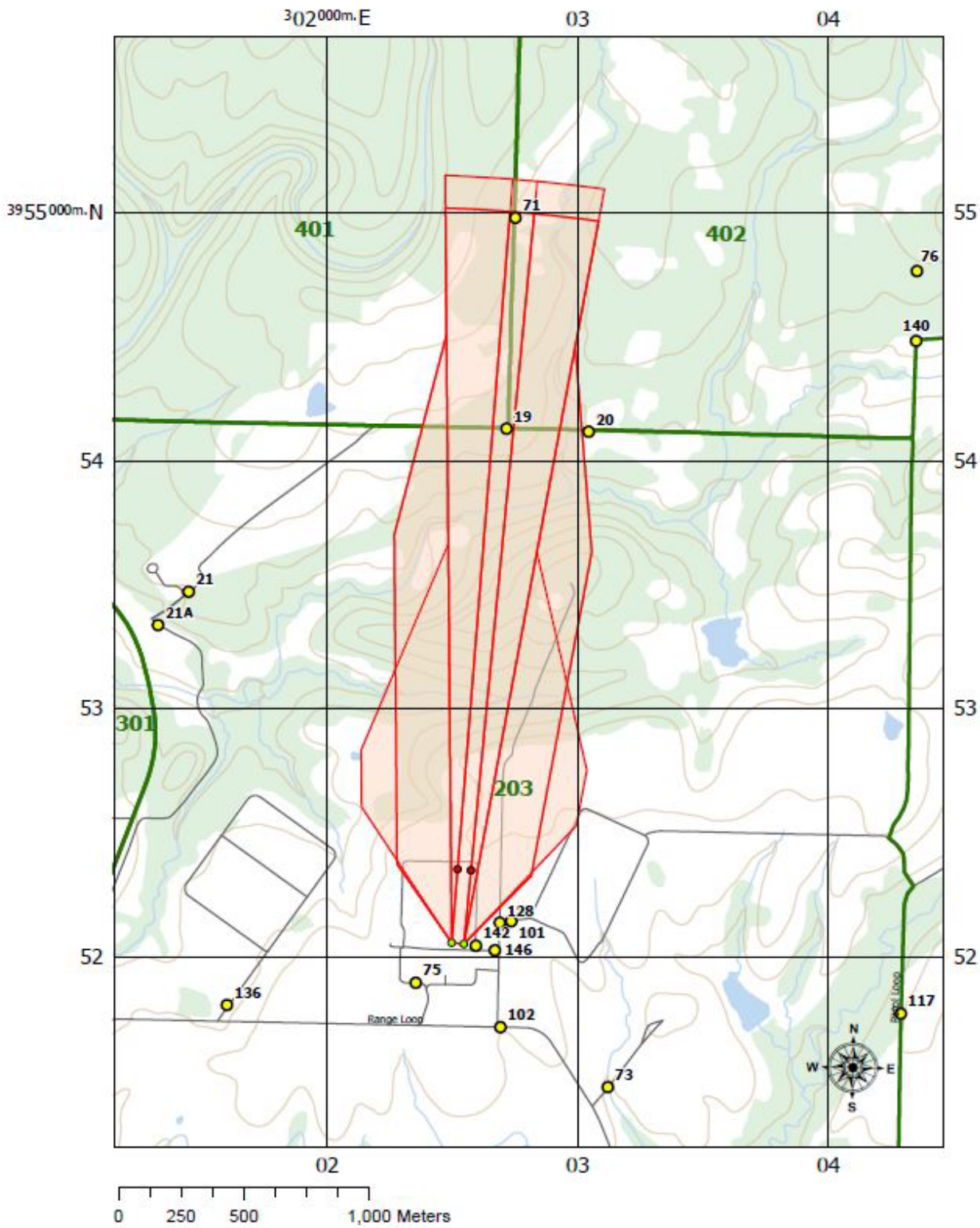


R1100. Safety precautions

RNG EAST 5.56 ZERO (Zero East Range)

- a. References:
 - (1) TC 3-22.9.
 - (2) FM 3-22.68.
 - (3) AR 385-63.
 - (4) DA Pam 385-63.
 - (5) Specific TM and FM for the weapon being utilized.
- b. Location: UV0251352047.
- c. Description and Capacity: This range is used to train individual soldiers on the skills necessary to align the sights and practice basic marksmanship techniques against stationary targets. The range is designed for training shot grouping and zeroing exercises with the M16 and M4 series rifle and the M249 SAW. This range has 17 firing targets that are mounted on fixed frames. This range is used for rifle 25-meter, Short-Range Marksmanship (SRM), and IWQ Table IV . Range may also be used for alternate pistol qualification. Weapons/ammunition authorized for use on this range are M16 series and M4/5.56mm, M249/5.56mm, and M9/9mm. **All mechanized targets MUST be put in the prone position unless conducting hold off and standoff confirmation zero.** Allowable DODICs are A058, A059, A063, A064, A071, A363, AA33, AA49, AB57, AB58, AC20, AC21.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. A radio system is located in the control tower for one frequency. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Target frame height will not exceed 48 inches from the ground for each firing point being utilized.
 - (3) Range flags (day) or red beacon lights (night/limited visibility) will be flown from the Zero East Range flagpole and from the flagpole on Range Loop Road.
 - (4) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) OIC must have a minimum grade of E6. Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) All personnel on the firing line, 55 meters to each side, and within 12 meters to the rear of the firing line will wear approved single hearing protection.
 - (3) Units using of this range for Close Quarters Combat training will submit an LOI and detail target layout to the Range Management Authority for review and approval 90 days prior to training event. Once the LOI and target layout is reviewed and SDZs are developed all additional requirements for the range will be included in an MOI for the range.
- g. Road Guard Requirements: None.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: Use of AB57, AB58, AC20, and AC21 closed MRF1

Zero East Range - R1100

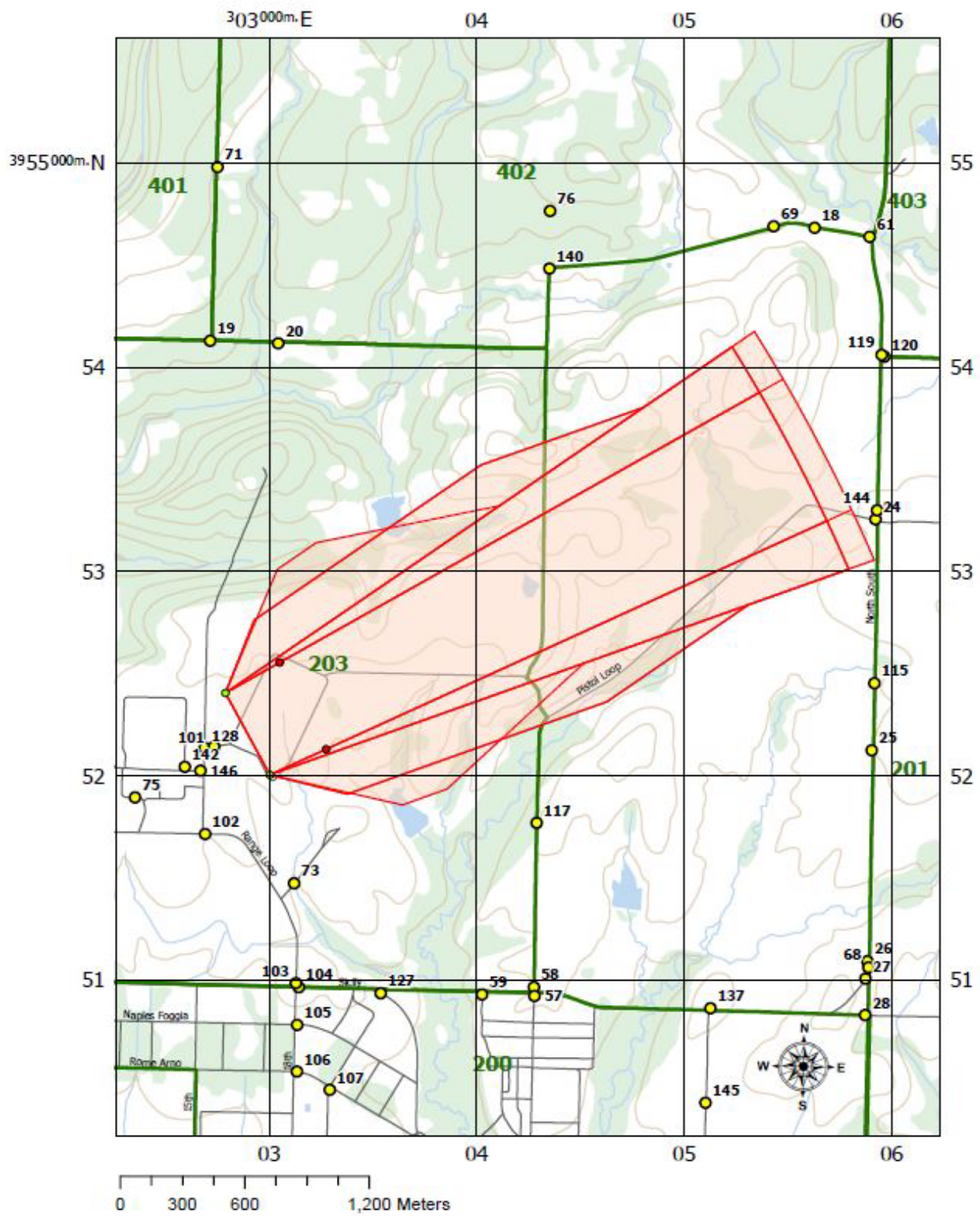


R1300. Safety precautions

MRF1 QUAL RNG 5.56 (Modified Record Fire Range One)

- a. References:
 - (1) TC 3-22.9.
 - (2) TC 3-22.68.
 - (3) AR 385-63.
 - (4) DA Pam 385-63.
 - (5) Specific TM and FM for the weapon being utilized.
- b. Location: UV0290552202.
- c. Description and Capacity: This range is used to train and test individual soldiers on the skills necessary to identify, engage, and defeat stationary infantry targets for day/night qualification requirements with the M16 and M4 series rifle, or the M249 SAW. This range has 16 firing points. Weapons/ammunition authorized for use on this range are M16 and M4 series/5.56mm and M249/5.56mm. Allowable DODICs are A058, A059, A062, A064, A071, AA33, AB57, AB58.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. A radio system is in the control tower for one frequency. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Only Range Control personnel qualified to maintain target mechanisms are authorized to proceed down range to repair targetry.
 - (3) Range flags (day) or red beacon lights (night/limited visibility) will be flown from the MRF1 Range flagpole and from the flagpole on Range Loop Road.
 - (4) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) OIC must have a minimum grade of E6. Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) All personnel on the firing line, 55 meters to each side, and within 12 meters to the rear of the firing line will wear approved single hearing protection.
- g. Road Guard Requirements: None.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: AT4 Range. Use of M855A1 (AB57 of AB58) closes M203, AT4 and Shotgun ranges.
- j. Barricades: Placed on road in between lanes 6 and 7 and on the road at the end of lane 16. Barricades will also be placed north of ammo shack on the road at the M203 range complex (reference SDZ for location) when MFR1 is firing M855A1 (AB57 and AB58).

Modified Record Fire 1 Range - R1300

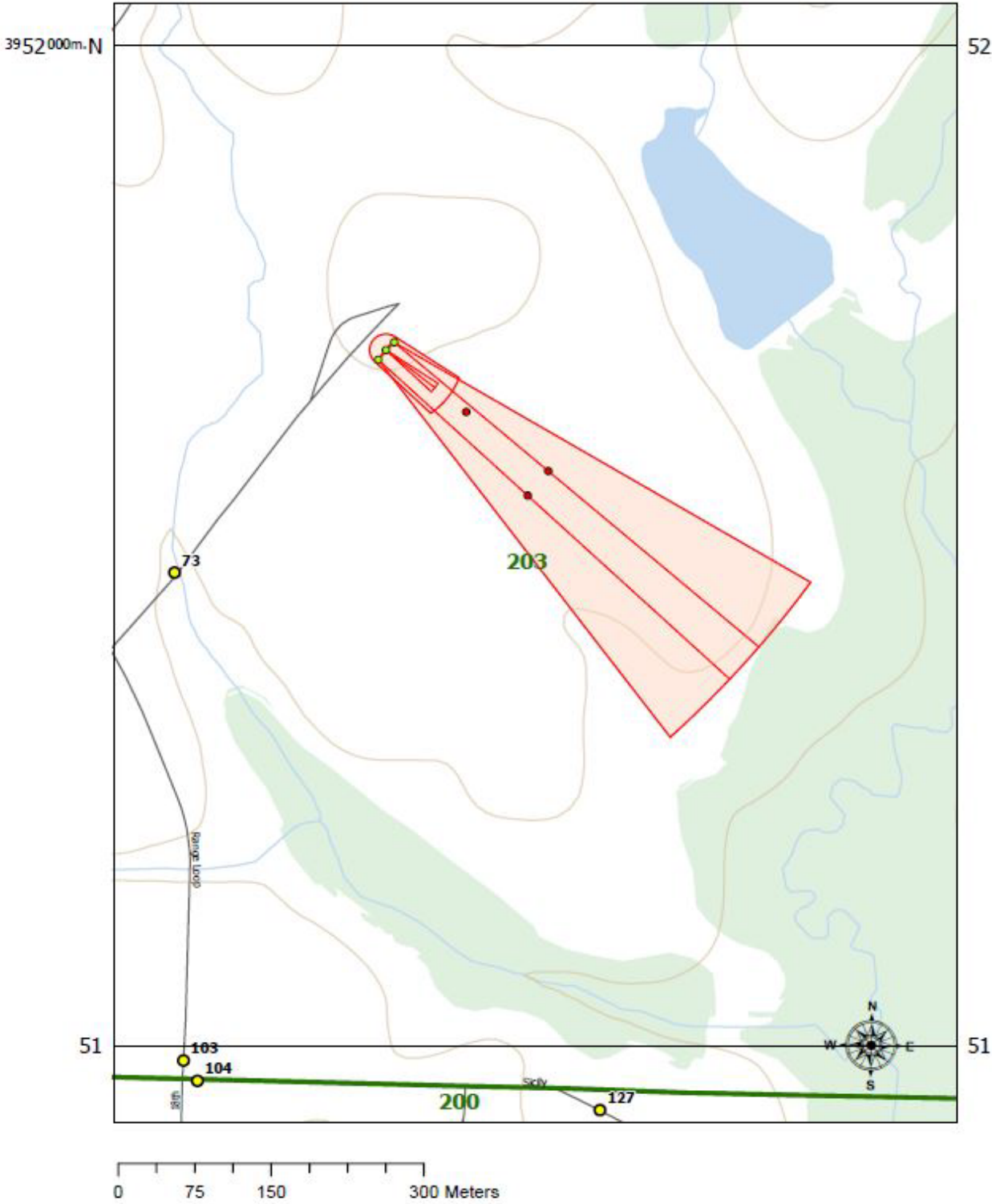


R1600. Safety precautions

M203 GL TPT RNG (Grenade Launcher Range)

- a. References:
 - (1) TM 3-22.31.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
- b. Location: UV0332551698.
- c. Description and Capacity: This range is used to train and test individual soldiers on the skills necessary to engage and defeat stationary target emplacements with the 40mm grenade launcher. Range consists of four (4) firing points. This range features two (2) zero targets marked with a white "Z" and located 200 meters from the firing line. Weapons/ammunition authorized for use on this range are M79, M203/40mm TP and M320, M1200 12ga only. HIGH EXPLOSIVE AMMUNITION IS PROHIBITED ON THIS RANGE. Authorized DODICs are AA51, AA52, B519, BA06, BA13, GG04, GG09.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. Using unit must provide two (2) communication sources. No additional sources are located on the range. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Firers will not engage any target within 100 meters of the firing line.
 - (3) Range flags will be flown from the M203 Range flagpole and from the flagpole on Range Loop Road.
 - (4) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) OIC must have a minimum grade of E7. Safety Officer must have a minimum grade of E6.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) All personnel on the firing line, 5 meters to each side, and within 5 meters to the rear of the firing line will wear approved single hearing protection.
 - (3) OIC/RSO will ensure only low-velocity TP cartridges are fired from the grenade launcher.
- g. Road Guard Requirements: None.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: None.

M203 Range - R1600



R2100. Special precautions

MORT SUBCAL-SRTR FP1 (Mortar SRTR Ranges 1 and 2)

MORT SUBCAL-SRTR FP2

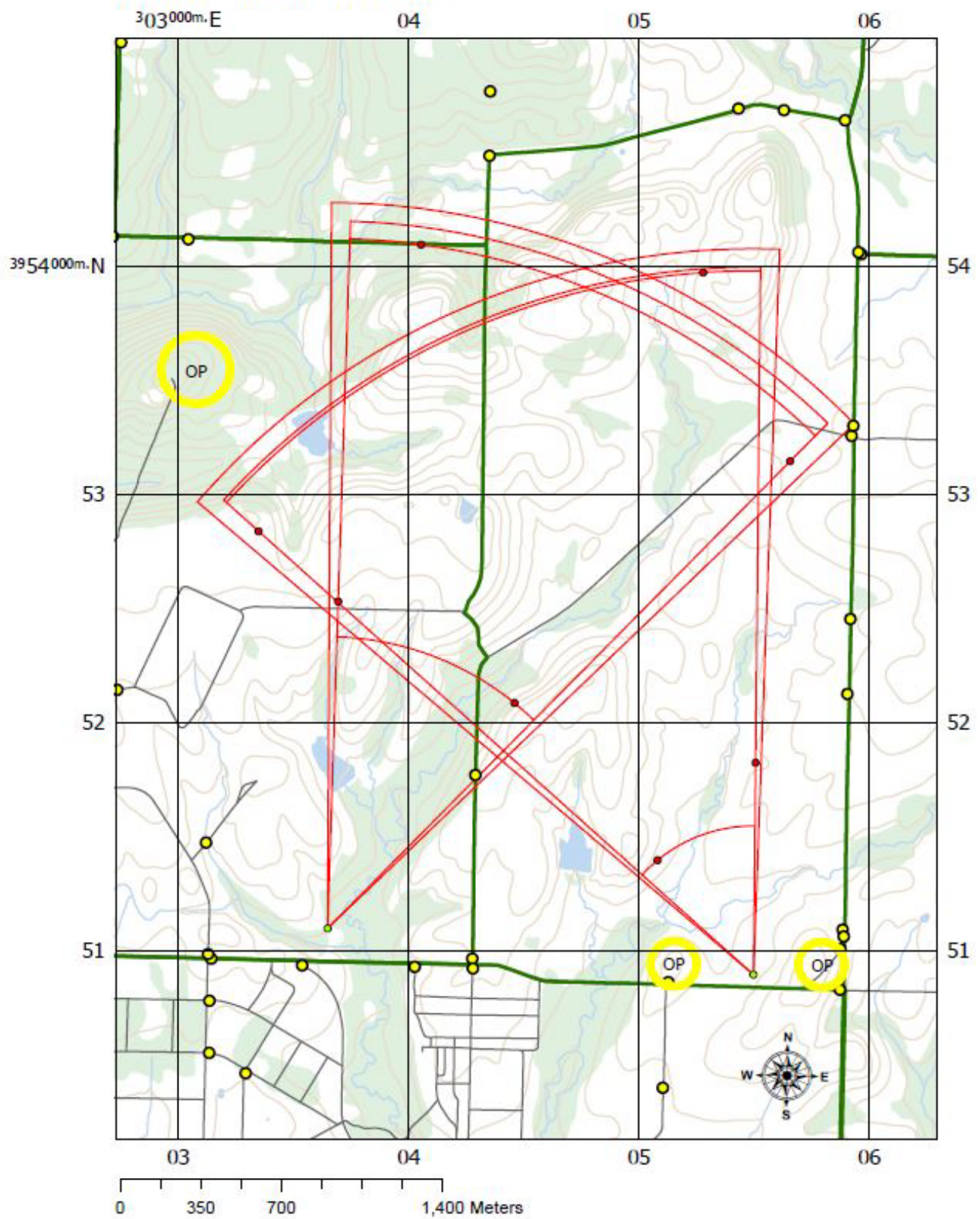
- a. References:
 - (1) TC 3-22.90
 - (2) TC 3-22.91
 - (3) AR 385-63
 - (4) DA Pam 385-63
 - (5) DA Pam 385-64
- b. Location:
 - (1) SRTR 1: UV0365351086
 - (2) SRTR 2: UV0553750906
- c. Description and Capacity: This range is used to train mortar crews on the skills necessary to apply fire mission data, engage and hit stationary targets in a tactical array. Range consists of two SRTR Ranges with four (4) firing points each and various targets ranging out to 3300 meters. Weapons/ammunition authorized to fire: M224 (60mm)/M769 (SRTR), M252 (81mm)/M879 (SRTR). Authorized DODICs are B645, B653, C876, C045
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. Using unit must provide two (2) communication sources. No additional sources are located on the range. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) NO HIGH EXPLOSIVE (HE) AMMUNITION IS AUTHORIZED FOR USE ON THIS RANGE-- ONLY FAR RANGE TRAINING PRACTICE (SRTR). ONLY CHARGE 1 WILL BE FIRED WITH THE 81mm SRTR ROUND and CHARGE 1 and 2 WITH THE 60mm SRTR ROUND MINIMUM DISTANCE FOR CHARGE 0 IS 300M, MAX IS 971M, MINIMUM DISTANCE FOR CHARGE 1 IS 800M, MAX IS 2150M. THE MINIMUM DISTANCE THAT WILL BE FIRED WITH THE 60mm SRTR ROUND WITH CHARGE 2 IS 1525 METERS IN ORDER NOT TO EXCEED THE AIRSPACE MAX ORD REQUIREMENT. THERE ARE 2 NO FIRE AREAS THAT ENCLOSE TOW MOVING TARGETS AND BUILDINGS. REFERENCE SDZ MAP FOR GRID LOCATIONS. THESE AREAS HAVE A STRICT 300 METER DIAMETER AND WILL BE LISTED ON THE RANGE CARD AND VERIFIED WITH RANGE CONTROL BEFORE FIRING.
 - (3) The four (4) established Forward Observer areas are as follows:
 - (a) OP 1 vic. UV0579250938 200m NO FIRE AREA
 - (b) OP 2 vic. UV0515050942 200m NO FIRE AREA
 - (c) OP 3 vic. UV0718051791 500m NO FIRE AREA
 - (d) OP 4 vic. UV0307653546 300m NO FIRE AREA
 - (4) Range flags will be flown from the Mortar SRTR Range flagpole and from the flagpole on Range Loop Road.
 - (5) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (6) OIC must have a minimum grade of E7. Safety Officer must have a minimum grade of E6. Using unit may request a waiver to lower these requirements based on unit organizational structure.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) All personnel who take part in mortar firing will wear approved protective helmets and approved eye protection. USMC personnel will also wear protective vests.
 - (3) All personnel within the hearing hazard zone (as defined by mortar/cartridge FM) will wear approved hearing protection. If no zone can be determined, all personnel within 200 meters of firing will wear approved hearing protection.
 - (4) Firing through obstructions is prohibited.
 - (5) Using units will be required to recover fired/expended rounds. Recovery operations will not take place unless a "Cold Status" is in effect and other range SDZs impacting the area are in a "Cold Status."
 - (6) All unit safety SOPs will be in effect while firing is conducted on this range.

g. Road guard requirement: One blocking entrance to the range. Road guards are required to maintain FM communication with the Range OIC. Road guards will be required to assist Range Control personnel in the placement/recovery of range firing warning signs and barricades. Using unit will provide driver and vehicle for placement/recovery of road guards. Road guards will remain in place until Range Control has cleared the range.

h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).

i. Range(s) closed during firing: SRTR1 CLOSES AT4 AND IMPACTS A HUNTING AREA. SRTR1 WILL NOT BE USED DURING HUNTING SEASON. SRTR2 CLOSED THE BREACH RANGE ONLY AND IS OK FOR USE DURING HUNTING SEASON.

Mortar SRTR - R2100

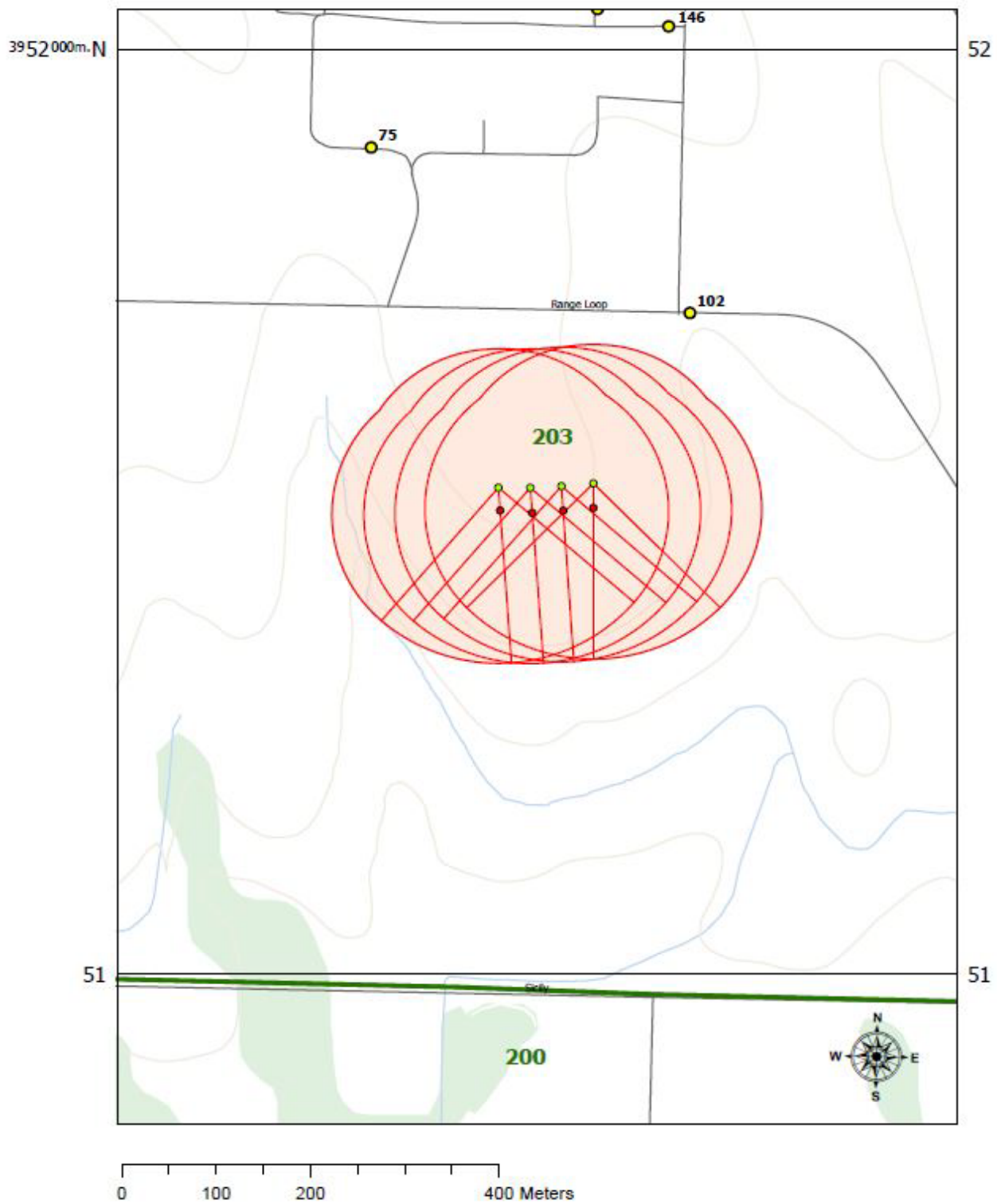


R2201. Safety precautions

HAND GREN LF RNG (Hand Grenade Live Fire)

- a. References:
 - (1) TC 3-23.30.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) Specific TM and FM for grenade being utilized.
- b. Location: UV0466052038.
- c. Description and Capacity: This range is used to train individual soldiers in the employment of live fragmentation hand grenades. Range consists of four (4) throwing bays, one (1) control bay, and one (1) ready bay. Throwing bay target areas are separated by earthen berms. Each throwing bay area contains one (1) target. Ammunition authorized for use on this range is the M67 fragmentation grenade. Authorized DODIC is G881.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. Using unit must provide two (2) communication sources. No additional sources are located on the range. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Only one (1) grenade may be thrown at a time on this range. Range OIC will verify detonation of each grenade.
 - (3) No direct viewing is authorized on this range. Mirrors are provided on the control bay for supervision of the range.
 - (4) Range OIC will ensure complete detonation of each grenade. In the event that a grenade fails to detonate (dud), range operations will immediately cease (no further throwing of grenades in the area of the dud) and the Range OIC will contact range control. No personnel are authorized to go downrange, only EOD personnel are authorized downrange (Appendix b, FM 3-23.30 contains detailed safety procedures to follow).
 - (5) Range flags will be flown from the Hand Grenade Live Fire flagpole and from the Range Loop Rd. flagpole.
 - (6) Grenades will not be thrown into standing water, deep snow, or dense vegetation.
 - (7) Range OIC will ensure all personnel are proficient in the safety precautions used for handling and throwing grenades before live grenade training begins. Successful completion of practice grenade training (mock bay) is mandatory prior to live grenade training.
 - (8) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (9) OIC must have a minimum grade of E7. Safety Officer must have a minimum grade of E6.
 - (10) Latrines will not be used during the issue of ammunition to soldiers.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range. Appendix B, FM 3.23-30 provides an example risk assessment for a grenade range event.
 - (2) All personnel on the firing line and within the 150-meter danger area will wear approved protective helmets, protective body armor without plates (i.e., FLAK Jacket, IOTV, IBA, MTV, ACH), single hearing protection and proper eye protection.
 - (3) Range OIC (E7 or above), Safety Officer (E6 or above), and Assistant Range Safety Officer (E6 or above) must be certified to perform live grenade training events. The following actions will be included in the certification of these individuals: actions in the event of a dropped grenade, short throw, grenade thrown other than downrange, surface danger zone, control of observers, misfire, and dud procedures, arming and throwing techniques and pre-live bay training requirements.
 - (4) Personnel inside the Safety and Ready Bays must be at least 18" inside from the rear of each bunker.
- g. Road Guard Requirement: **One road guard is required at the entry point of the range.**
- h. **Vehicles are required be parked in the parking area north of the range.** The only vehicles allowed beyond the parking area are those in direct support of the range, i.e. ammo, RTO and medical.
- i. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- j. Ranges closed during firing: None.

Hand Grenade Live Range - R2201

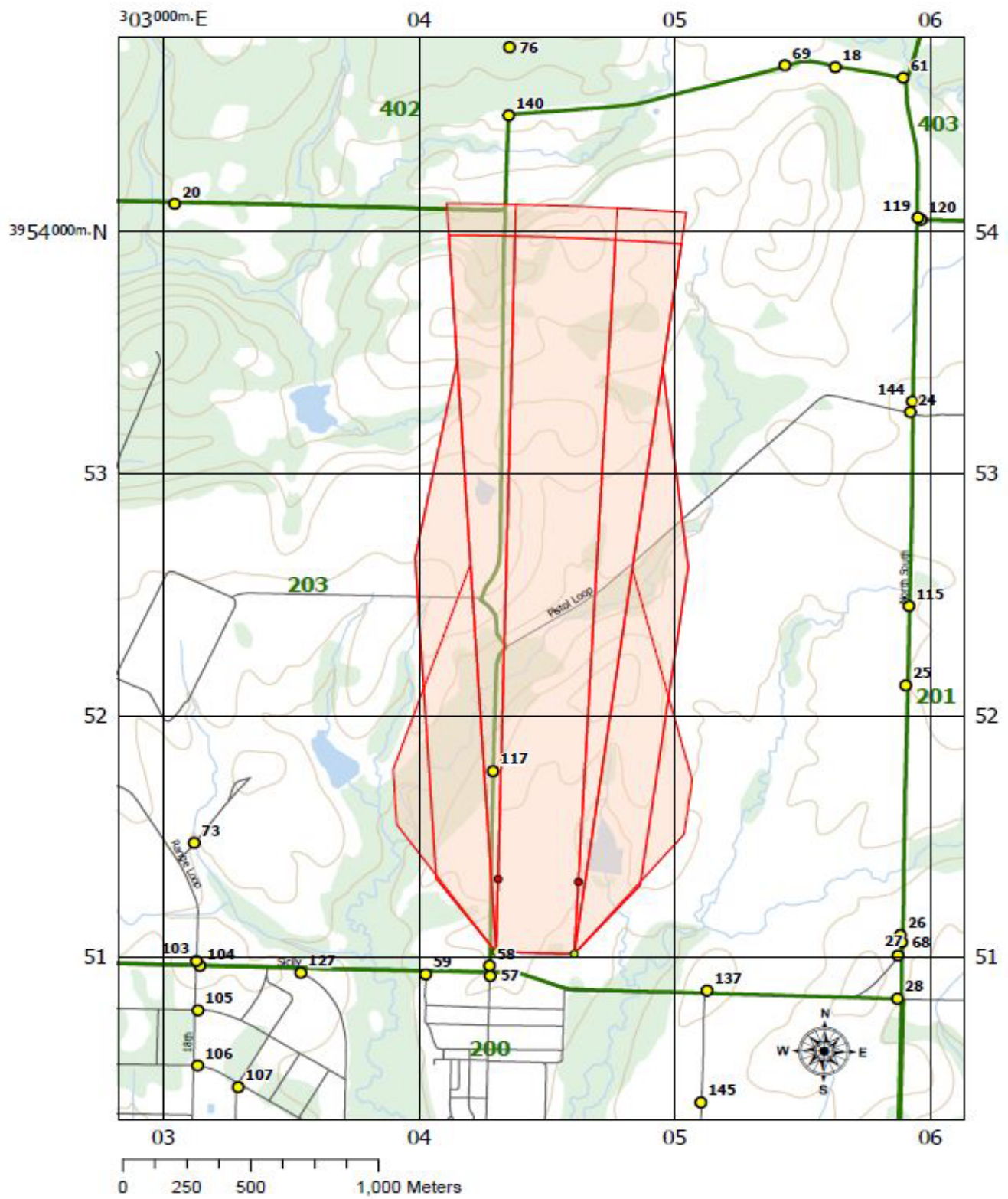


R2300. Safety precautions

MRF2 QUAL RNG 5.56 (Modified Record Fire Range Two)

- a. References:
 - (1) TC 3-22.9.
 - (2) TC 3-22.68.
 - (3) AR 385-63.
 - (4) DA Pam 385-63.
 - (5) Specific TM and FM for the weapon being utilized.
- b. Location: UV0444851015.
- c. Description and Capacity: This range is used to train and test individual soldiers on the skills necessary to identify, engage, and defeat stationary infantry targets for day/night qualification requirements with the M16 and M4 rifles. This range has 16 firing points. Weapons/ammunition authorized for use on this range are the M16 and M4 series/5.56mm. The M249/5.56mm is authorized for use on the center eight (8) lanes. Authorized DODICs are A058, A059, A062, A064, A071, AA33, AB57, AB58, AB77.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. A radio system is in the control tower for one frequency. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Only Range Control personnel are authorized to proceed down range beyond the target frames.
 - (3) Range flags (day) or red beacon lights (night/limited visibility) will be flown from the MRF2 Range flagpole and from the flagpole on Range Loop Road.
 - (4) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) OIC must have a minimum grade of E6. Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) All personnel on the firing line, 55 meters to each side, and within 12 meters to the rear of the firing line will wear approved single hearing protection.
- g. Road Guard Requirements: None.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: None.

Modified Record Fire 2 Range - R2300

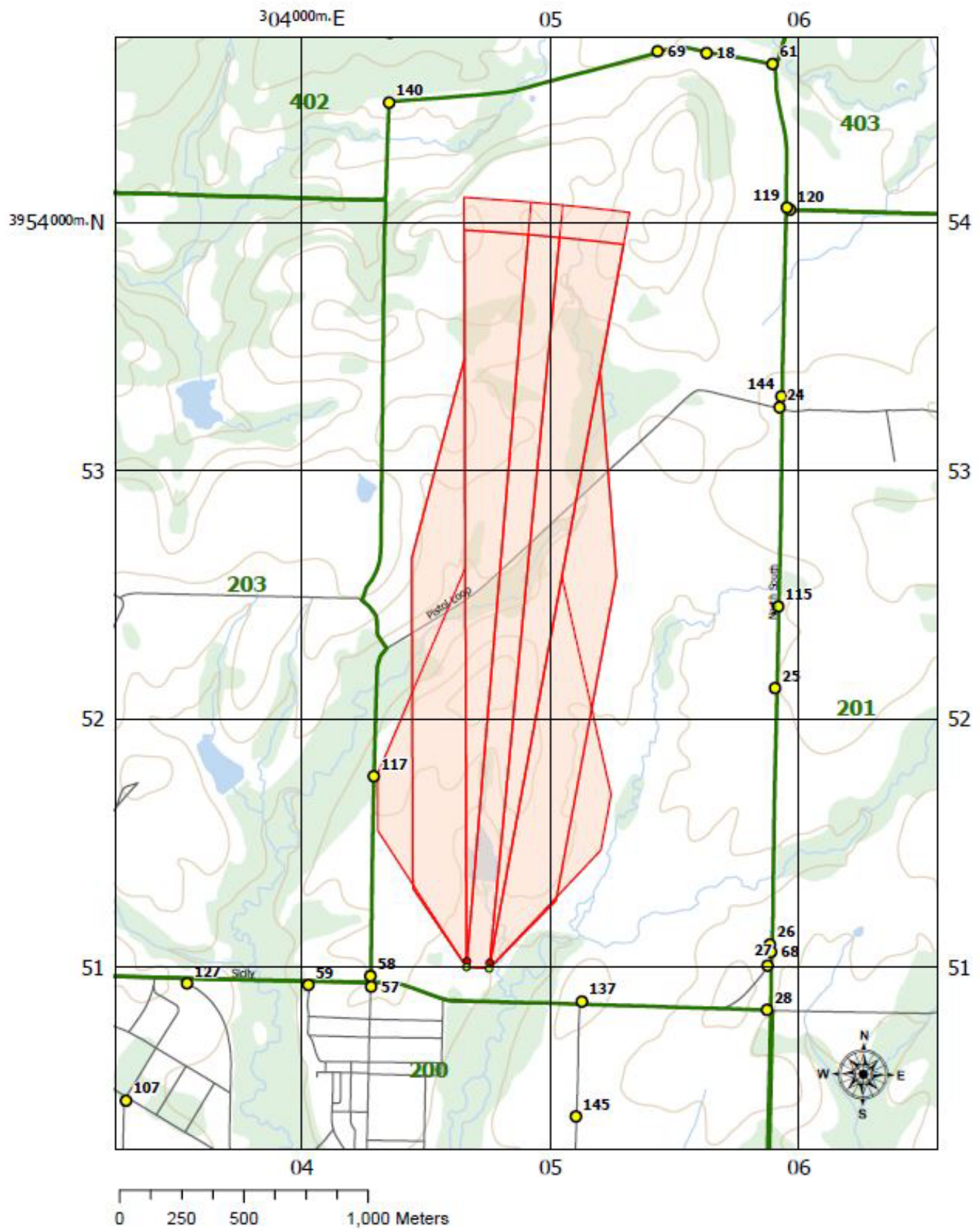


R2600. Safety precautions

RNG 260 5.56 ZERO (Zero 2 Range)

- a. References:
 - (1) TC 3-22.9.
 - (2) TC 3-22.68.
 - (3) AR 385-63.
 - (4) DA Pam 385-63.
 - (5) Specific TM and FM for the weapon being utilized.
- b. Location: UV0469050933.
- c. Description and Capacity: This range is used to train individual soldiers on the skills necessary to align the sights and practice basic marksmanship techniques against stationary targets. The range is designed for training shot grouping and zeroing exercises with the M16 and M4 series rifles and the M249 SAW. Range may also be used for alternate pistol qualification on the M9, Short Range Marksmanship (SRM) or qualification on the M1200 shotgun. This range has 32 firing points. Targets are mounted on fixed frames. Weapons/ammunition authorized for use on this range are the M16 and M4 series/5.56mm, M249/5.56mm, M9/9mm, and the M1200/12gauge #00 buckshot. Allowable DODICs are A011, A058, A059, A062, A064, A065, A071, A363, AA33, AA49, AB57, AB58, AB77, AC20, AC21. Additionally, Less Than Lethal (LTL) Rounds are authorized as follows: 12 GA. Shotgun, AA51, AA52; 40mm Grenade Launcher, BA06, BA13.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. A radio system is located in the control tower for one frequency. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Only Range Control personnel qualified to maintain target mechanisms are authorized to proceed down range to repair targetry.
 - (3) Range flags (day) or red beacon lights (night/limited visibility) will be flown from the Zero 2 Range flagpole and from the flagpole on Range Loop Road.
 - (4) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) OIC must have a minimum grade of E6. Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) All personnel on the firing line, 55 meters to each side, and within 12 meters to the rear of the firing line will wear approved single hearing protection.
- g. Road Guard Requirements: None.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: None.

Zero 2 Range - R2600

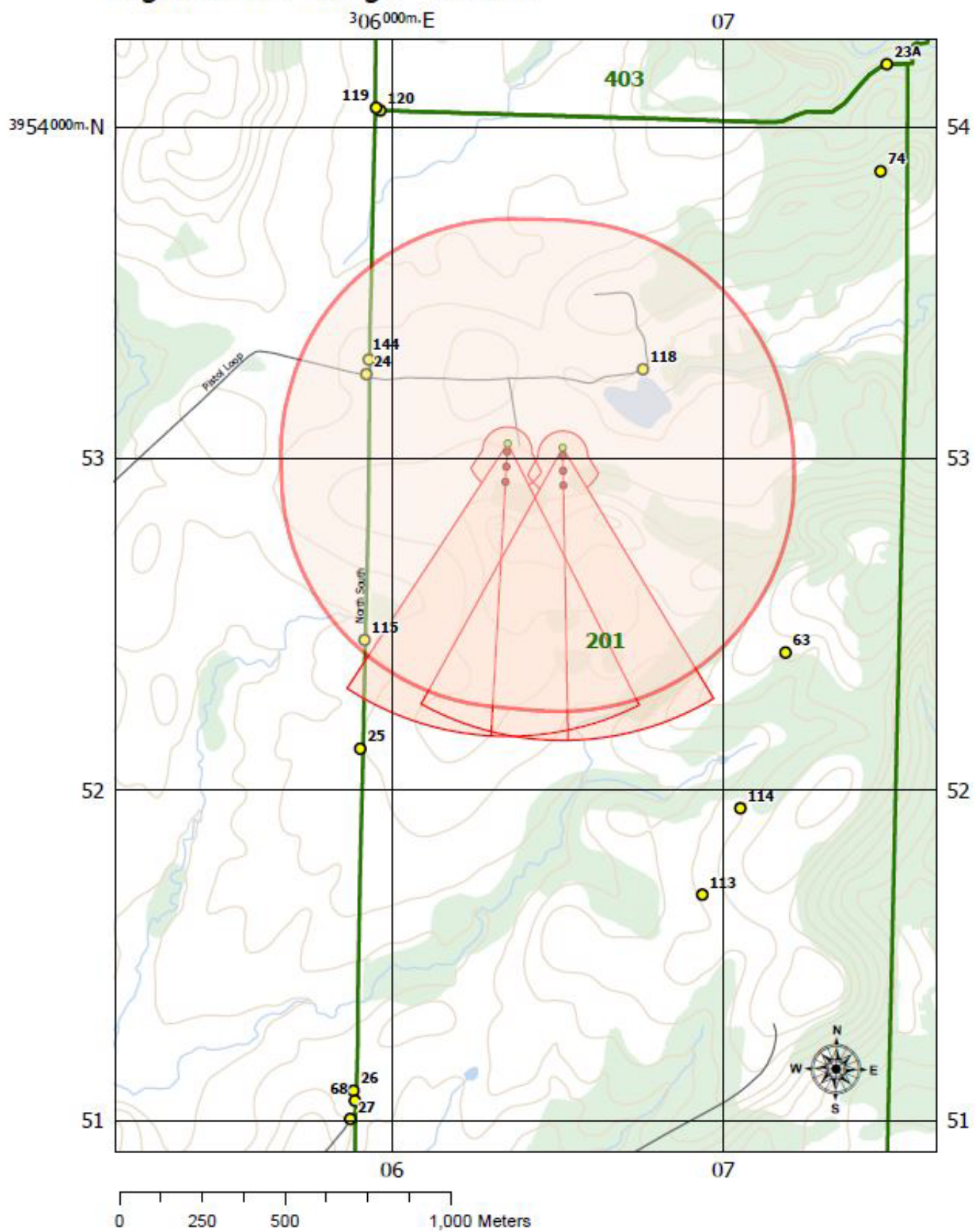


R2900. Safety precautions

LIGHT DEMO RNG (Light Demolition Range)

- a. References:
 - (1) TC 3-34.214.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) DA Pam 385-64.
 - (5) Pertinent EOD publications.
- b. Location: UV0638853230.
- c. Description and Capacity: This range is used to train individual soldiers on the employment techniques of explosives and demolitions. Range consists of one (1) open blast area. Two shelters are located at 200 meters and 300 meters from the blast area. This range is restricted to a maximum charge of 250 lb. of non-fragmenting material per surface shot, and 320 lb. of non-fragmenting material per subsurface shot. Use of fragmenting material (Claymores/cutting charges) is prohibited on this range. Authorized DODICs are M023, M030, M032, M039, M420, M421, M456, M591, M635, ML45, MN02, MN06, MN07, MN08, MN41, MN68, MN69, MN79, MN86, MN88, MN90, MP03.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate prior to firing. Using unit must provide two (2) communication sources. No additional sources are located on the range. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) A maximum of **250 lbs.** Of non-fragmenting material may be surface detonated at a time.
 - (3) A maximum of **320 lbs.** Of non-fragmenting material may be sub-surface detonated at a time.
 - (4) Range flags will be flown from the Light Demo Range flagpole and from the flagpole on Range Loop Road.
 - (5) Only mission essential personnel will be allowed in the SDZ during firing.
 - (6) Mixing of live and inert demolitions for training is prohibited.
 - (7) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (8) OIC must have a minimum grade of E7. Safety Officers must have a minimum grade of E6.
- f. Special Instructions:
 - (1) All personnel within the surface danger zone (SDZ), based on the maximum planned blast as listed on the demolition plan, will wear approved protective helmets, protective body armor without plates (i.e., FLAK Jacket, IOTV, IBA, MTV, PASGT), single hearing protection, and proper eye protection. Helmets, ear, and eye protection will also be worn while in the confines of the bunkers. Body armor may be removed while inside the Ready Bunker but will be worn while inside the OIC/Blasting Bunker.
 - (2) Range OIC (E7 or above), Safety Officer (E6 or above) and Assistant Range Safety Officer (E6 or above) must be demolition certified to perform their duties.
 - (3) Range OIC must submit a demolition plan (IAW FM 3-34.214) and a risk assessment worksheet (IAW DA PAM 385-30) addressing the range operation prior to conducting the event. Range Control will not permit the range to go "hot" without a copy of these documents on file at Range Control (Bldg. 740).
 - (4) Mission essential personnel are authorized to fire outside of the bunker at the appropriate MSD while wearing approved protective helmets, protective body armor without plates (i.e., FLAK Jacket, IOTV, IBA, MTV, PASGT).
- g. Road Guard Requirements: One (1) at UV06005320, east of Gate 24, blocking entry on the range. Road guard is required to maintain FM communication with the Range OIC. This will be coordinated during review of the demolition plan at Range Control. Road guards will be required to assist Range Control personnel in the placement/recovery of range firing warning signs and barricades. Using unit will provide driver and vehicle for placement/recovery of road guards. Road guards will remain in place until Range Control has cleared the range.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: Sniper Field Fire.
- j. Range conflicts: TOW Live fire. The use of Breach range simultaneously must be approved by the Range Management Authority.

Light Demo Range - R2900

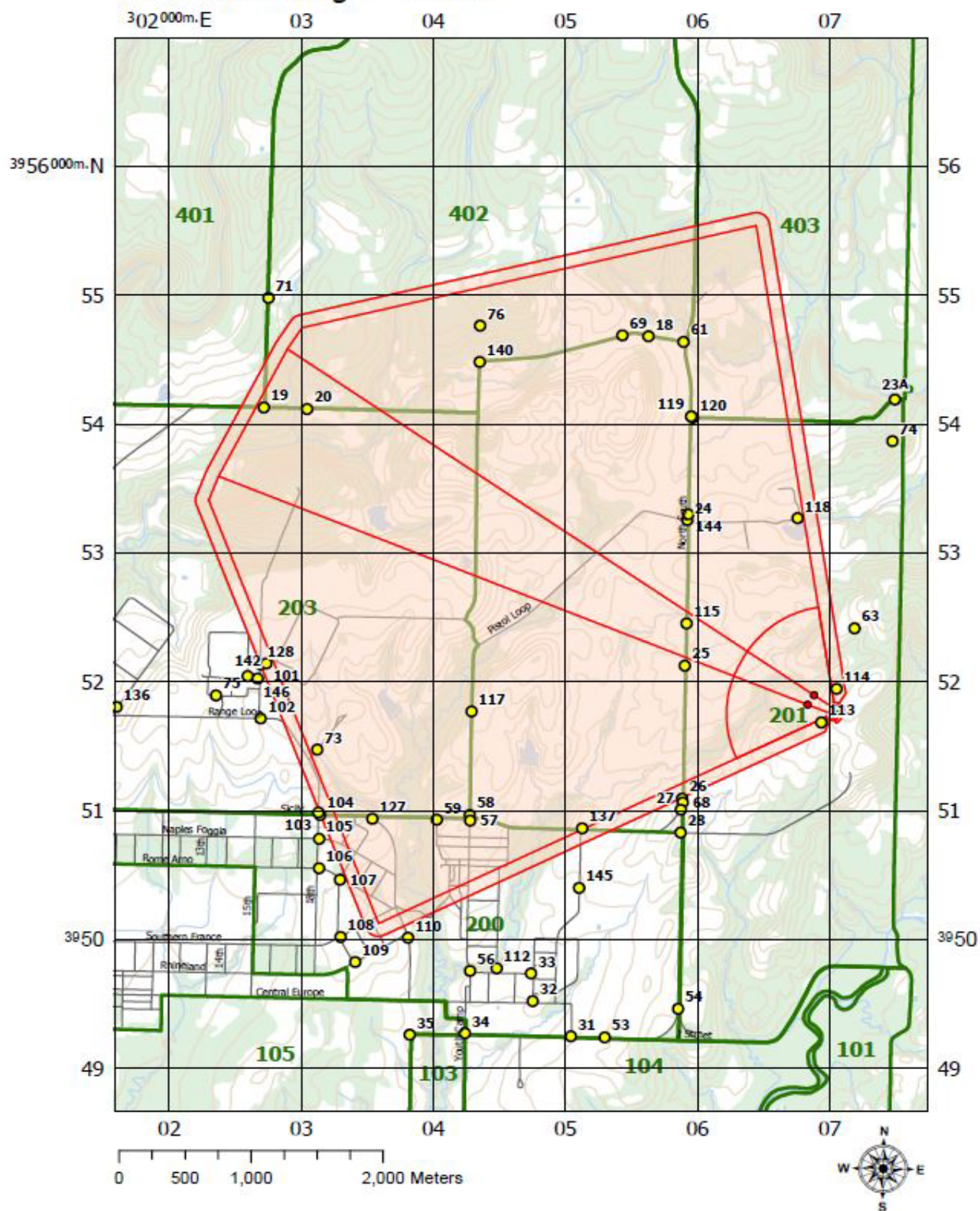


R3100. Safety precautions

TOW LF TPT RNG (TOW Live-Fire Range)

- a. References:
 - (1) TC 3-22.34.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) DA Pam 385-64.
- b. Location: UV0720151764.
- c. Description and Capacity: This range is used to train and test soldiers on the skills necessary to employ weapons, identify, track, engage, and defeat stationary and moving armor targets presented individually or as part of a tactical array. Range consists of two (2) firing points and various targets arrayed at 2000 meters to 2750 meters. Weapon/ammunition authorized for use on this range is the TOW/Training Practice (TP) round. Authorized DODICs are PB18, PB95, PB96, PB99, PE63, PE64, PV02, PV04, PV05, PV39, PV84.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. Using unit must provide two (2) communication sources. No additional sources are located on the range. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Personnel will not enter the range fan without contacting Range Control. Several live-fire ranges overlay this range fan. The range OIC must get approval from Range Control prior to moving downrange (i.e. for targetry set-up/repair/recovery).
 - (3) NO HIGH EXPLOSIVE (HE) AMMUNITION IS AUTHORIZED FOR USE ON THIS RANGE-- ONLY TRAINING PRACTICE (TP).
 - (4) Range flags will be flown from the TOW MILES flagpole and from the flagpole on Range Loop Road.
 - (5) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (6) OIC must have a minimum grade of E7. Safety Officer must have a minimum grade of E6.
- f. Special Instructions:
 - (1) Before firing any missile, the SDZ will be cleared of all nonessential personnel.
 - (2) Personnel within 75 meters of a firing point will wear approved hearing protection and eye protection.
 - (3) Personnel located within 100 meters to each side and 200 meters to the rear of a firing point will wear approved hearing protection. USMC personnel (including gunners within this area will wear helmets and protective vests.
 - (4) Assistant Range Safety Officers (ARSOs) will be positioned at each weapon system to ensure the gunner has identified the range safety limit markers. During live fire exercises, the ARSO will verify that each gunner's line-of-sight to the target is within the range safety limit markers.
 - (5) During periods of limited visibility, portable limit beacons will be placed on the left and right limit markers. Range OIC will coordinate issue of these beacons from Range Control.
 - (6) During live-fire exercises, electrical power will be shut off to all overhead power lines that are within the range impact area. Range OIC will verify this with Range Control prior to conducting fire on the range.
 - (7) All missile guidance wire must be retrieved from the range impact area by using unit personnel prior to clearing the range. North/South Road and Pistol Loop Road will remain closed to traffic after firing until all wire has been retrieved. Range Control will reopen the roads to traffic when the range is cleared.
- g. Road Guard Requirement: One (1) and Cable Gate 104, one (1) at Cable Gate 113. Road guards are required to maintain FM communication with the range OIC. Road guards will be required to assist Range Control personnel in the placement/recovery of range firing warning signs and barricades. Using unit will provide driver and vehicle for placement/recovery of road guards. Road guards will remain in place until Range Control has cleared the range.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: Sniper Field Fire, Light Demolition, Breach Range, TOW MILES, MK19, Zero 2, MRF2, MOUT CTF, M203, AT4, MRF1, Shotgun, and Buddy team.

TOW Live Range - R3100

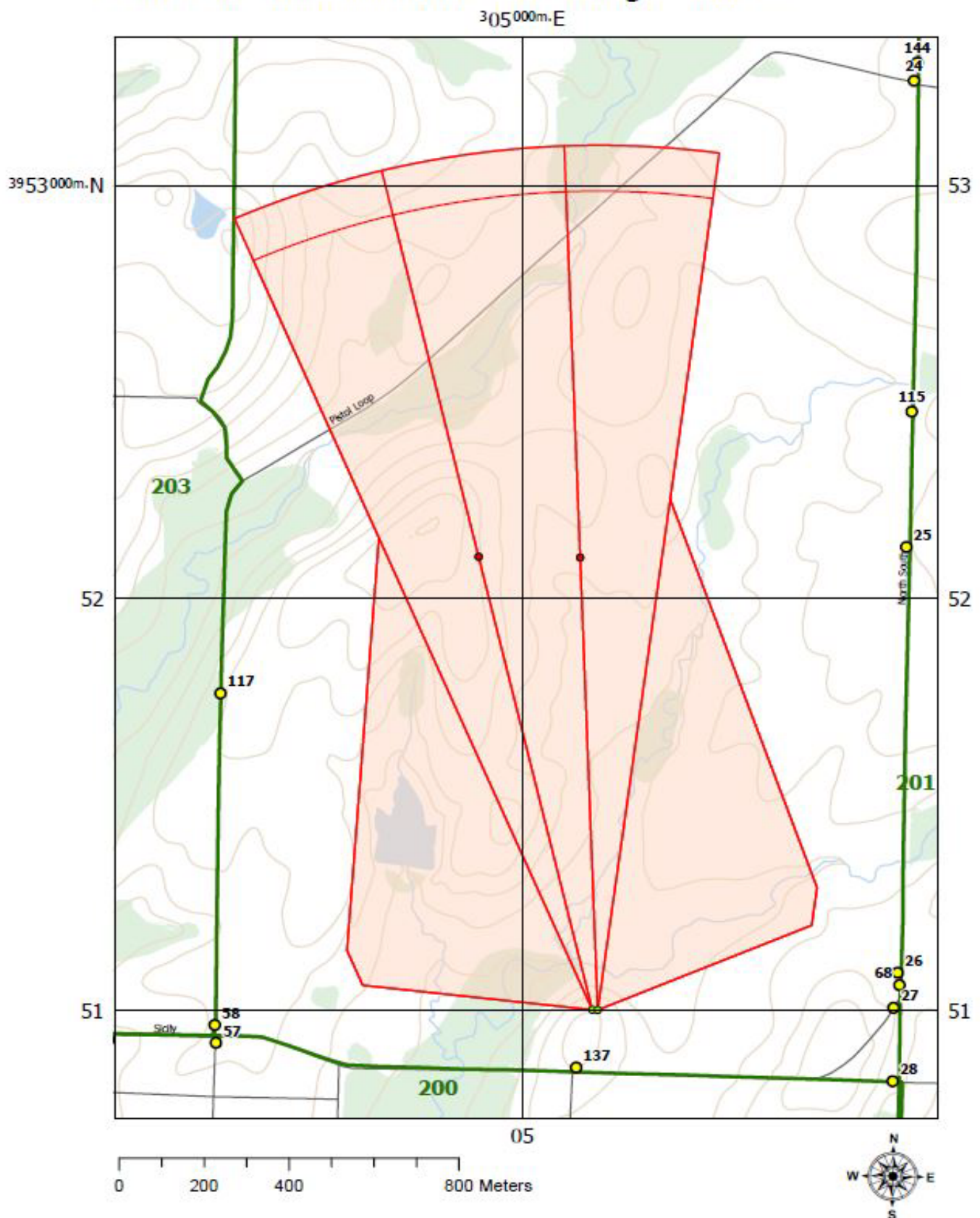


R3200. Safety precautions

MK19 MG TPT RNG (MK19 Grenade Machine Gun Range)

- a. References:
 - (1) TC 3-22.27.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) DA Pam 385-64.
- b. Location: UV0517351004
- c. Description and Capacity: This range is used to train and test individual soldiers on the skills necessary for firing the MK19 and M320. The soldiers practice target observation, fire adjustment, machine gun traversing, searching, developing speed during operation, and obtaining an accurate burst. Range consists of two (2) lanes with point and area targets. Weapons and ammunition authorized are MK19/ Training Practice (TP) round only. Authorized DODICs are B584, BA12, BA30, B519.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. Using unit must provide two (2) communication sources. No additional sources are located on the range. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Only Range Control personnel qualified to maintain target mechanisms are authorized to proceed downrange to repair targetry.
 - (3) NO HIGH EXPLOSIVE (HE) AMMUNITION IS AUTHORIZED FOR USE ON THIS RANGE-- ONLY TRAINING PRACTICE (TP) ROUNDS.
 - (4) Range flags will be flown from the MK19 Range flagpole (Gate 137 entrance) and from the flagpole on Range Loop Road.
 - (5) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (6) OIC must have a minimum grade of E7. Safety Officer must have a minimum grade of E6.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) All personnel on the firing line and within the 20-meter radius of each weapon system will wear approved protective helmets, protective body armor without plates (i.e., FLAK Jacket, IOTV, IBA, MTV, ACH), single hearing protection, and proper eye protection.
 - (3) Daily noise exposure limit within the contour hazard area (20-meter radius) is 1000 rounds per day.
 - (4) Targets will be engaged only at ranges greater than 75 meters.
 - (5) Firing through obstructions is prohibited.
 - (6) Using units will be required to recover fired/expended rounds, under the supervision of Range Control personnel, at the completion of the range event. All Army personnel recovering 40mm M918 TP projectiles will follow the procedures outlined in TB 9-1310-251-10. The use of protective goggles or face shield, gloves, and tongs while handling M918 TP rounds is mandatory.
- g. Road Guard Requirement: None.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: TOW MILES, TOW Live Fire, and Breach Range.

MK19 Grenade Machine Gun Range - R3200

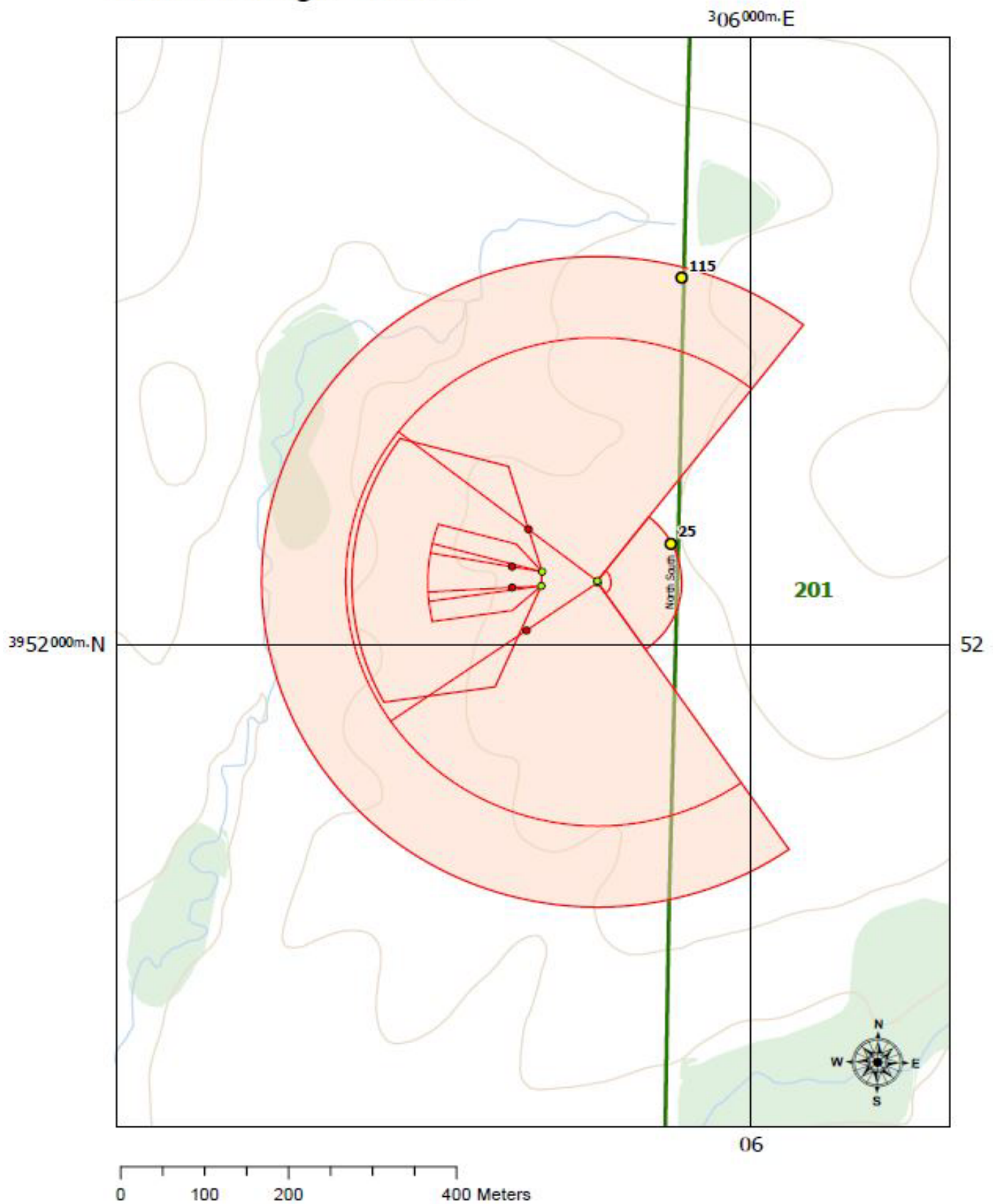


R4800. Safety precautions

BREACH RNG

- a. References:
 - (1) TC 3-34.214.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) DA Pam 385-64.
 - (5) TC 90-1.
 - (6) Pertinent EOD publications.
- b. Location: UV0583952022.
- c. Description and Capacity: This range is used to train individual soldiers on the technical aspects of breaching techniques. It is also used to train tactics, procedures, and explosive techniques not trained on any other type of facility. Blasts are restricted to a maximum charge of 1 lb. of material per shot. Total weight of explosives maintained on the range may not exceed 25 lbs. Net Explosive Weight (NEW). Authorized DODICs are AA54, GG12, J007, M023, M030, M456, M635, ML45, MN02, MN06, MN07, MN08, MN41, MN68, MN69, MN86, MN88, MN90.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. Using unit must provide two (2) communication sources. No additional sources are located on the range. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) A maximum of **one (1) lb** material may be detonated at a time on this range.
 - (3) A maximum of **twenty-five (25) lbs** of total explosives may be located on this range.
 - (4) Range flags will be flown from the Breach Range flagpole (gate entrance) and from the flagpole on Range Loop Road.
 - (5) Only mission essential personnel will be allowed in the SDZ during firing.
 - (6) Mixing of live and inert demolitions for training is prohibited.
 - (7) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (8) OIC must have a minimum grade of E7. Safety Officers must have a minimum grade of E6. Both OIC and RSO must have a commander's certification concerning demolition proficiency.
- f. Special Instructions:
 - (1) All personnel on the range and within the surface danger zone (SDZ), based on the maximum planned blast as listed on the demolition plan, will wear approved protective helmets, protective body armor without plates (i.e., FLAK Jacket, IOTV, IBA, MTV, PASGT), single hearing protection, and proper eye protection. Helmets, ear, and eye protection will also be worn while in the confines of the bunkers. Body armor may be removed while inside the Ready Bunker but will be worn while inside the OIC/Blasting Bunker.
 - (2) Range OIC (E7 or above), Safety Officer (E6 or above) and Assistant Range Safety Officer (E6 or above) must be demolition certified to perform their duties.
 - (3) Range OIC must submit a demolition plan clearly specifying the distance the firing element will stand from the breach with and without shielding. Demolition plan must show calculation for MSD. The OIC will ensure that the MSD is adhered to for each shot when allowing mission essential personnel on the firing side of the berm with or without shielding. A risk assessment must be submitted mitigating risk factors for range operations. Range Control will not permit the range to go "hot" without a copy of these documents on file at Range Control (Bldg. 740).
- g. Road Guard Requirement: One at UV0720152423. Road guard is required to maintain FM communication with the Range OIC. Road guard will be required to assist Range Control personnel in the placement/recovery of range firing warning signs and barricades. Using unit will provide driver and vehicle for placement/recovery of road guard. Road guard will remain in place until Range Control has cleared the range.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during firing: MK19.
- j. Range conflicts: The use of the Light Demo Range simultaneously must be approved by the Range Management Authority.

Breach Range - R4800



LFSH0. Safety precautions

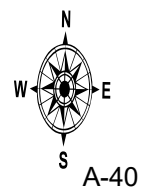
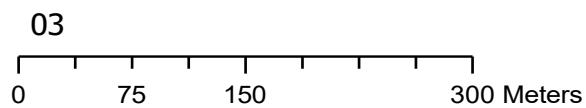
LIVE FIRE SHOOTHOUSE

- a. References:
 - (1) TC 3-22.9.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) DA Pam 385-64.
 - (5) NGR 385-63
- b. Location: UV0343550273
- c. Description and Capacity: The primary purpose of the Live Fire Shoot House (LFSH) is to train units during live fire exercise to move tactically, engage targets, conduct breaches, and practice target discrimination in an urban environment.
- d. **ONLY the following weapons/ammunition is authorized on this range:** M16 and M4 series/5.56mm rifle, and Pistols, Authorized DODICs are AA33, AA48, A058, A059, A065, A080, AB09, AB10, AB11, AB12, AB13, AB14, AB15, AA16, AA40, AB16, AB17, AB56, AB57, AB58, AB66, AB67, AB77, AB78, AA12, AA19, AA21, AA49, A360, A362, A349, A350, A400, A401, A402, A409, A415, A475, A481, DWGW, and DWGX. **All other ammunitions not listed are strictly prohibited.**
- e. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. Using unit must provide two (2) communication sources. No additional sources are located on the range. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- f. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet
 - (2) OIC must have a minimum grade of E7. RSO must have a minimum grade of E6.
 - (3) Range Staff will inspect serviceability of LFSH prior to being issued. This inspection will include but not limited to the following items:
 - (a) Structural integrity of Shoot House walls and condition of bullet resistant materials
 - (b) Examination of the interior walls for projectiles to prevent ricochets.
 - (c) Ensure all rooms are clear of personnel, brass, wildlife, or any other possible hazards.
 - (4) Range flags will be flown at the range entrance and the main flagpole on Range Loop Road.
 - (5) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (8) OIC and RSO will ensure the separation of live ammunition from blank ammunition.
 - (9) Personnel will not fire above the "NO FIRE" line that is marked around the top of the walls in the LFSH.
 - (10) Observer Controllers (OC's) will maintain positive control on the element that is moving through the LFSH.
 - (11) Weapons will be cleared at provided clearing barrels and verified by OC.
 - (12) Personnel will maintain muzzle awareness at all times and weapons will be carried at the "low-ready" in and around the LFSH.
 - (13) Weapons are to remain clear, on safe, with no magazine in the lower receiver, unless otherwise told to "lock and load" by OIC/ RSO or OC.
 - (14) Personnel will only fire at designated targets that have bullet traps to prevent ricochet. Units will understand and know the floor plan of the LFSH.
 - (15) Overhead firing techniques will not be conducted on this range. **NO personnel will fire above the "NO-FIRE" line which is painted at the top of the walls in the LFSH.**
 - (16) Minimum uniform requirements for BLANK FIRE and LIVE FIRE on this range include the following PPE: ACH or Kevlar helmet, hearing protection, eye protection (glasses/goggles), gloves and body armor without plates (IBAS/IOTV).
 - (17) No targets will be placed closer than two feet from doorway entrance.
 - (18) Targets in the down position will not be engaged.
 - (19) **The catwalk will only be used during dry and blank firing. It is not authorized for use during live fire. No weapons of any kind are allowed on the catwalk.**
- g. Restrictions:

- (a) No indiscriminate or automatic fire (Burst Firing)
 - (b) No Tracer ammunitions
 - (c) No Frangible bullets
 - (d) No Paint Ball ammo
 - (e) No chemical agents (including smoke)
 - (f) No firing at a target without a bullet trap.
- h. Special Instructions:
 - (1) OIC and RSO will report to Range Control to turn in a risk assessment (DD Form 2977) per DA PAM 385-30 and get issued the range.
 - (2) The Range Safety Officer is responsible for certifying that all Observer Controllers (OCs) are knowledgeable and understand the safety policies and procedures for this range.
 - (3) Each using unit's command will develop a detailed written training plan, which will be submitted to Range Control for coordination/approval prior to arrival of the using element. This plan will have a mission scenario which addresses the following:
 - (a) Maneuver plan. All personnel will practice their techniques utilizing the "Mock-Up". Using element will conduct a walk through and a blank-fire iteration, prior to conducting any live fire portion of training.
 - (b) Weapons and ammunition to be used. Ensure the separation of blank ammunition and live ammunition.
 - (c) Command, control, and communications plan.
 - (d) Training areas/facilities required.
 - (e) Targetry required.
 - (f) Safety plan. Commanders will sign a Risk Assessment and provide a copy of the RA to Range Control prior to going into a "hot" status.
 - (g) Observer Controller plan
 - (4) OC's will move with the element as it maneuvers through the layout of the LFSH.
 - (5) Individual/weapon safety requirements:
 - (a) Each weapon will have a safety function check prior to issue of live ammunition on the range.
 - (b) Each soldier (firing a weapon) will have qualified on his weapon system within the previous 12 months.
 - (c) All personnel on the range will be trained and demonstrate a thorough knowledge of required safety procedures pertaining to their weapon system, ammunition, and emergency range procedures prior to conducting exercises on the range.
 - (d) All personnel will have completed training and be qualified IAW FM 3-22.9 chapter 7, using tables 7-18, 19, and 20 Record and Practice fire standards for short range marksmanship qualifications.
 - (e) Recommend all personnel complete station 1 (individual and team task/technique trainer) or the Urban Assault Course, IAW TC 90-1, chapter 2, paragraph 2-22.
 - (f) DRY FIRE and BLANK FIRE iteration will be conducted before **ALL** live fire training for both day and night iterations. Personnel will not advance to live fire training if the OIC or Commander's assessment of an individual's or unit's training is not up to standard.
 - (g) Day live fire will be conducted before night fire is allowed; Soldiers who do not complete day fire will not be allowed to fire at night. Use of Night Observation Devices (NODs) is required for nighttime training. These include illumination intensification, infrared (IR), and passive infrared (PIR) devices. The most common of these devices are Night Vision Goggles (NVG) or Night Vision Devices (NVD) that use illumination intensification to enhance the soldier's view. Any nighttime training must be requested in the training packet and annotated in a separate DD Form 2977, Deliberate Risk Assessment Worksheet. Commanders will certify night vision equipment training completion by all users.
 - (h) An on-site training scenario brief is required prior to any Live or Non-Live Fire exercise. This brief must be given by either the OIC or RSO.
 - (i) Pickup all brass and debris after each iteration (before the next team goes through).
 - (j) **UNIT WILL NOT SWEEP THE LFSH.**
- i. Road Guard Requirements: None.
- j. Impact Area closed during training: None.
- k. Range(s) closed during training: None.

Live Fire Shoot House - LFS00

303000m.E



IED01. Safety precautions

CIED DEFEAT LANE

- a. References:
 - (1) FM 4-01
 - (2) FM 55-30.
 - (3) AR 385-63.
 - (4) DA Pam 385-63.
 - (5) Specific TM and FM for the weapon and/or tactics being utilized.
- b. Location: UV0360049100.
- c. Description and Capacity: This range consists of an approximately 340-acre area used to train squad, platoon, and company size elements on the conduct of mounted and dismounted operations in a hostile environment. The range consists of a gridded road network with such features as traffic circles, bridge, overpass, center divide intersection, roadside market, mosque, and convoy blackout area. This range allows for blank fire only of the M9, M16/M4 series, M249, M240, and M2 weapon systems. Use of pyrotechnics and simulators is also allowed depending on the needs of the using unit and subject to approval of Range Control. Range is ideally suited for use of OPFOR and COBs during training exercises.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to firing. Using unit must provide two (2) communication sources. No additional sources are located on the range. Firing will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Medical personnel must be present on the range during the conduct of training. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (3) OIC must have a minimum grade of E7. Safety Officer must have a minimum grade of E6.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) All personnel will wear a level of PPE appropriate for the training mission and in accordance with unit's SOP. Single hearing protection is strongly recommended.
- g. Road Guard Requirements: None.
- h. Impact Area closed during firing: None.
- i. Range(s) closed during firing: None.

IED Defeat Lanes - IED01



R1800. Safety precautions**HAND GREN QUAL RNG (Hand Grenade Qualification Course)**

- a. References:
 - (1) TC 3-23.30.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
- b. Location: UV0177850723
- c. Description and Capacity: This range is used to train and test individual soldiers in the employment of hand grenades using the proper gripping procedures and throwing techniques. Weapon/ammunition authorized: M69 practice grenade/M228 fuse. Course consists of seven (7) stations IAW TC 3-23.30.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional sources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Practice grenade fuses will not be used without the practice grenade bodies. Fuses will be secured in the grenade body prior to use.
 - (3) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (4) OIC must have a minimum grade of E6. Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) OIC and RSO will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) At a minimum, all personnel handling grenade bodies with fuses shall have approved eye protection. It is recommended that the use of gloves and single hearing also be employed but remains at the discretion of the unit commander.
 - (3) Using units may request hand grenade bodies from Range Control.
 - (4) Grenade Identification Kit must be drawn from Range Control.
 - (5) Refer to FMs/TMs for DUD procedures. Contact Range Control to notify of any DUDs on range.
- g. Road Guard Requirements: None.
- h. Impact Area closed during training: None.
- i. Range(s) closed during training: None.

Hand Grenade Qualification Course - R1800



R2000. Safety precautions

GAS CHAMBER (NBC Chamber)

- a. References:
 - (1) FM 3-11
 - (2) AR 385-63
 - (3) DA Pam 385-63.
- b. Location: UV0248950733.
- c. Description and Capacity: A single building for training personnel in the employment of protective equipment and the effects of chemical agents. The building consists of a 16 ft. by 32 ft. one room chamber area. Weapons/ammunition authorized for use: CS Riot Control Agents (RCAs). Only CS in capsule form may be used in the CS Chamber. NO BURNING CANISTERS OR SYSTEMS WILL BE USED IN THIS FACILITY.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional sources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) The OIC and RSO must be CBRN qualified and have received specific and formal training in the characteristics, capabilities, and training applications of RCAs.
 - (3) Protective masks must be available for all soldiers participating in the training.
 - (4) Unprotected personnel will not be exposed to RCAs longer than 15 seconds.
 - (5) RCAs will not be released when personnel located downwind will be affected, unless exposure to a controlled concentration is desired.
 - (6) CS agents will not be released within 50 meters of spectators.
 - (7) Range flags will be flown from the NBC Chamber flagpole and from the flagpole on Range Loop Road.
 - (8) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (9) OIC must have a minimum grade of E6. Range Safety Officer must have a minimum grade of E5. Either the OIC or RSO must be CBRN qualified when conducting CS or riot control agents.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) OIC will provide an overlay (plume cloud) detailing the scheme of intent of CS/RCA employment if operating outside of the NBC Chamber building. At a minimum, the overlay will identify weather, date time group, formation area, decon area and safety location away from the hazard.
 - (3) Range OIC will ensure three (3) 5lb. fire extinguishers are on site and operational prior to opening the range. These extinguishers may be issued from Range Control.
- g. Road Guard Requirements: None.
- h. Impact Area closed during training: None.
- i. Range(s) closed during training: Air Assault Obstacle Course, Rappel Towers (closes only if CS/RCAs are utilized outside of the NBC Chamber).
- j. Landing pads closed during training: Located northwest corner of Blue Devil LZ. UV02715031. (closes only if CS/RCAs are utilized outside of the NBC Chamber).

NBC Chamber - R2001



R3800. Safety precautions

RAPPEL TOWERS

- a. References:
 - (1) TC 21-24.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
- b. Location: UV0246050210
- c. Description and Capacity: This course consists of a 16 ft. incline wall and a 60 ft. tower. The 60 ft. tower is set up to rappel from three (3) sides (1 wall and 2 helicopter configurations). Each side contains anchor points, with five positions for wall rappelling and 10 positions configured for fast rope. The 60 ft. tower is accessed by a series of ladders with landings every 10 feet. The 16 ft. incline wall consist of two separate walls extending from opposing sides of a single training deck with five rappelling positions each side, for a total of 10.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional sources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Range OIC will be responsible for preparation and turn-in of risk assessment (IAW DA PAM 385-30) and Rappel Safety Officer certified (if required) when utilizing this facility. Assessment/certification must be turned into Range Control prior to issuance of this facility.
 - (3) Rappel Safety Officers must be physically present on each side of the 60 ft. tower and 16 ft. where rappelling is being conducted (i.e. if only the wall side of the 60 ft. tower is being used, one Rappel Safety Officer will be present on the tower. If three sides of the 60 ft. tower are being used, three Rappel Safety Officers will be present on the 60 ft. tower).
 - (4) Medical personnel must be present on the range during the conduct of training. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) OIC must have a minimum grade of E7. Range Safety Officer must have a minimum grade of E6.
- f. Special Instructions:
 - (1) Range OIC will ensure all personnel are familiar with the correct safety procedures as listed in TC 21-24.
 - (2) Range OIC will be responsible for ensuring required equipment and support personnel (IAW TC 21-24) are on site prior to conducting rappelling operations.
 - (3) Individuals qualified to be a Rappel Safety Officer must have graduated from one of the following courses:
 - (a) Rappel Master
 - (b) Air Assault
 - (c) Ranger Course
 - (d) Basic Military Mountaineering Course
 - (4) "Australian Style" rappelling is prohibited on this facility.
- g. Road Guard Requirements: None.
- h. Impact Area closed during training: None.
- i. Range(s) closed during training: None.

R3900. Safety precautions

OBSTACLE CRS (Air Assault Obstacle Course)

- a. References:
 - (1) AR 385-63.
 - (2) DA Pam 385-63.
 - (3) TC 3-22.20
- b. Location: UV0234950250
- c. Description and Capacity: This course consists of nine (9) obstacles from TC 3-22.20. Bleachers are located in an administration area adjacent to Station 9. Obstacles are as listed below:
 - (1) Tough One
 - (2) Confidence Climb
 - (3) Six Vault
 - (4) High Step Over
 - (5) Low Belly Over
 - (6) Belly Crawl
 - (7) Swing Stop Jump
 - (8) Incline Wall
 - (9) Weaver
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional sources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (3) Medical personnel must be present on the range during the conduct of training. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (4) OIC must have a minimum grade of E7. Range Safety Officer must have a minimum grade of E6.
 - (5) Training is postponed/modified when obstacles are slippery due to inclement weather.
 - (6) Landing/fall areas under obstacles raked and refilled as needed before each use. Puddles of water under obstacles need to be filled to preclude a false sense of security.
- f. Special Instructions:
 - (1) Range OIC will ensure all personnel are familiar with the correct procedure for navigating each obstacle prior to conducting the event. This must be accomplished by a physical “walk-through” on the obstacle.
 - (2) Range OIC will ensure a safety is located at the highest point of the Tough one and one additional safety per starting position (harnessed in at each rope). One safety must be harnessed in on the Confidence Climb to support participants during the training event. Same may also apply to other stations based on the OIC’s risk assessment for the event.
- g. Road Guard Requirements: None.
- h. Impact Area closed during training: None.
- i. Range(s) closed during training: None.

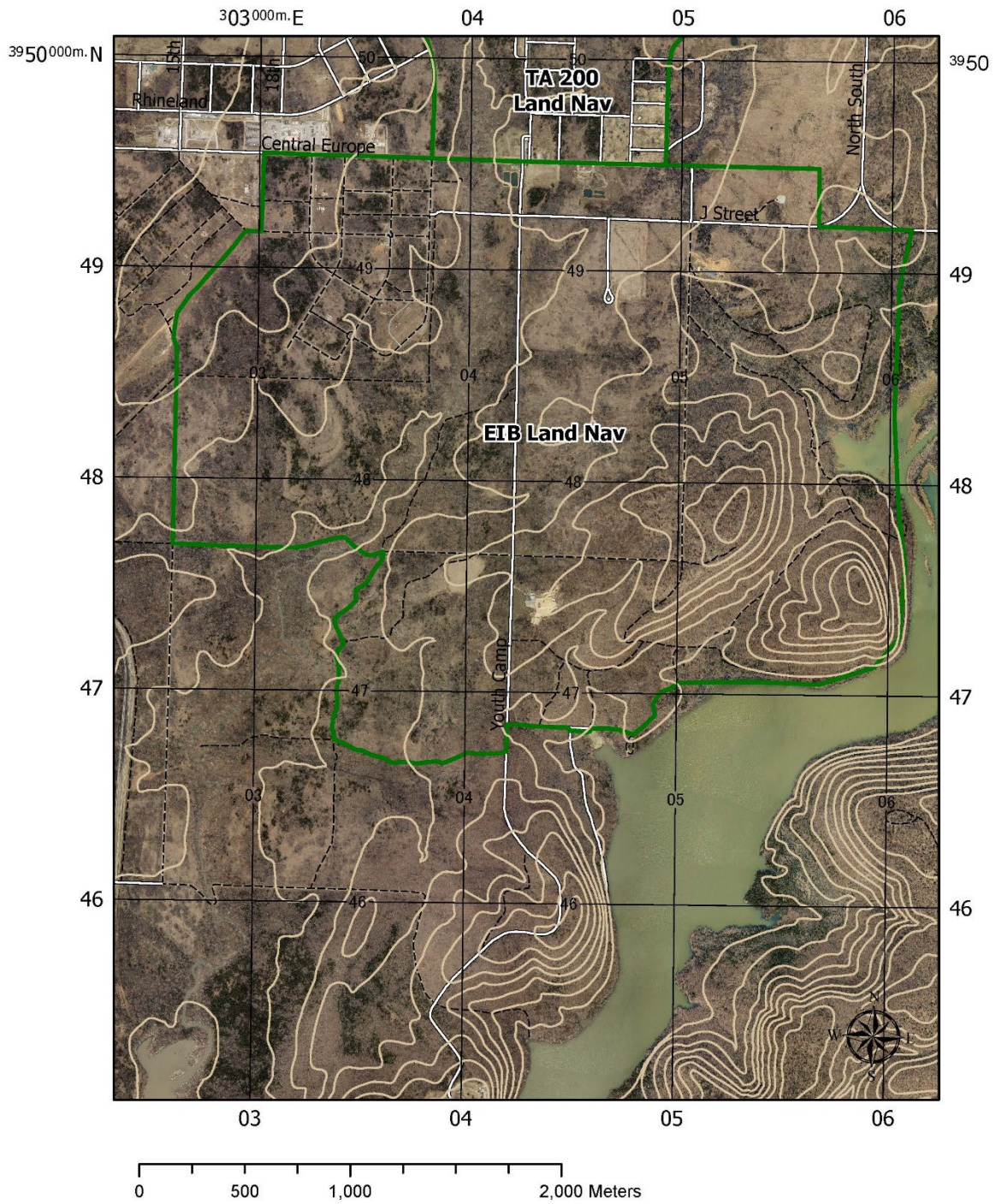
Rappel Towers & Obstacle Course - R3900



R4100. Safety precautions**LAND NAV CRS EIB (EIB Land Navigation Course)**

- a. References:
 - (1) TC 3-25.26.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
- b. Location: UV0423050124
- c. Description and Capacity: An area used for dismounted map reading, terrain association, or unit sustainment navigational training. Course consists of 12 start points and 32 waypoints.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional sources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Range OIC will be responsible for preparing/turn-in of risk assessment (IAW DA PAM 385-30) prior to issue of training area and conduct of training.
 - (3) Medical personnel must be present on the range during the conduct of training. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (4) OIC must have a minimum grade of E6. Range Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Due to this range's proximity to Greenleaf Lake, Range OIC will include individual safety precautionary measures taken in and around water hazards (for both daylight and limited visibility environments) in the range safety brief.
 - (2) Using units may require barricades for road/trail entrances to this course. Unit will coordinate this requirement and be responsible for placement/recovery of barricades while utilizing the training area.
- g. Road Guard Requirements: None.
- h. Impact Area closed during training: None.
- i. Range(s) closed during training: None.
- j. Barriers: None, except as may be required to facilitate unit's training objectives, and only for the duration of the training event.

EIB Land Nav - R4100



R4200. Safety precautions

MOUT CACTF

- a. References:
 - (1) TC 90-1.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) DA Pam 385-64.
- b. Location: UV0419250417.
- c. Description and Capacity: This facility teaches the skills and unit cohesiveness necessary to conduct clearing, breaching, offensive, and defensive operations in an urban setting. Weapons/ammunition authorized for use: organic weapons with use of blanks, MILES and CCMCK (Close Combat Mission Capability Kit). Targetry must be coordinated with Range Control (for placement and operation) prior to drawing of the range.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional sources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Range flags will be flown from the flagpoles (2 ea.) located at:
 - (a) Southwest corner of 24th Street and Texas St.
 - (b) Grid coordinate UV0424250018, west access road off 24th Street (south of the CTF complex).
 - (3) Medical personnel must be present on the range during the conduct of training. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (4) OIC must have a minimum grade of E7. Range Safety Officer must have a minimum grade of E6.
- f. Special Instructions:
 - (1) The use of pyrotechnic simulators, smoke grenades, or surface flares is prohibited within confined areas or against wooden buildings without approval from Range Control. The range OIC must identify hazard protection and mitigation measures (IAW DA PAM 385-30) and present them to Range Control for approval prior to any pyrotechnics being utilized within the structures/confined areas on the facility.
 - (2) No blank ammunition (above 5.56mm), smoke, or pyrotechnics will be discharged in the underground sewer system. Special munitions (i.e. CCMCK) must be approved by Range Control prior to use on the facility. Use of the tunnels must be coordinated at least two weeks prior to use to ensure unlocked and ventilation system are working.
 - (3) Stun Grenade 1.4 and below. All personnel within 1.52m (5ft) will wear single hearing protection if employing 2 rounds per day. All personnel within this distance will wear double hearing protection if employing 3 to 41 rounds per day.
 - (4) To prevent serious eye injury the only approved eye protection for use with close combat mission capability kit (CCMCK) is the standard-issue sun, wind, and dust goggles (NSN 8465-01-328-8268), which must be worn until all training has ceased.
 - (6) Rappel Safety Officer personnel must be physically present on each side of the facility where rappelling is conducted.
 - (7) Climbing and descending the outside walls by use of grappling hooks, rappelling ropes, or free climbing is permitted under supervision of a designated Range Safety Officer. Climbing is prohibited on:
 - (a) Bus Stop.
 - (b) Warehouse.
 - (c) Train Station.
 - (d) Any trailer house or wooden/metal structure.
 - (8) Soldiers are not permitted on any metal/wooden roof.
 - (9) Rooftop landings by rotor wing aircraft are prohibited on this facility. A designated landing pad is provided at the southeast corner of the main complex.
 - (10) Gate 57 will be closed when facility is occupied and during training. **BLDG 42AR and parking area north of gate 57 is NOT part of the CACTF. Only RTI and CGTC personnel allowed in that area.**
- g. Road Guard Requirements: None.
- h. Impact Area closed during training: None.
- i. Range(s) closed during training: None

MOUT CACTF - R4200



R4300. Safety precautions

MOUT MAC

- a. References:
 - (1) TC 90-1.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) DA Pam 385-64.
- b. Location: UV0484549502.
- c. Description and Capacity: This facility teaches the skills and unit cohesiveness necessary to conduct clearing, breaching, offensive, and defensive operations in an urban setting. Weapons/ammunition authorized for use: organic weapons (no live fire)/blanks, MILES and CCMCK (9mm). Targetry must be coordinated with Range Control (for placement and operation) prior to drawing of the range.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional sources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) For non-live fire training, range flag will be flown from the MOUT MAC flagpole (south end near mess shelter).
 - (3) Medical personnel must be present on the range during the conduct of training. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (4) OIC must have a minimum grade of E7. Range Safety Officer must have a minimum grade of E6.
- f. Special Instructions:
 - (1) Minimum personnel requirements:
 - (a) Additional OIC required for each station when operating more than one station concurrently.
 - (c) Certified Rappel Safety Officer when conducting rappelling events.
 - (2) OC, CS, or CN smoke is not authorized for use on the MOUT MAC site.
 - (3) The only structure authorized for rooftop movement is the Offense/Defense Building (Station 4). Movement on all other rooftop structures is prohibited. Movement on Station 4 is permitted under the supervision of an OIC. No more than five soldiers are permitted on the roof by at any one time.
 - (4) Climbing and descending the outside walls use of grappling hooks, rappelling ropes, or free climbing is permitted on the Offense/Defense Building only. Anchor points located on the structure will be used.
 - (5) The use of pyrotechnic simulators, smoke grenades, or surface flares is prohibited within confined areas or against wooden buildings without approval from Range Control. The range OIC must identify hazard protection and mitigation measures (IAW DA PAM 385-30) and present them to Range Control for approval prior to any pyrotechnics being utilized within the structures/confined areas on the facility.
- g. Road Guard Requirements: None.
- h. Impact Area closed during training: None.
- i. Range(s) closed during training: None.

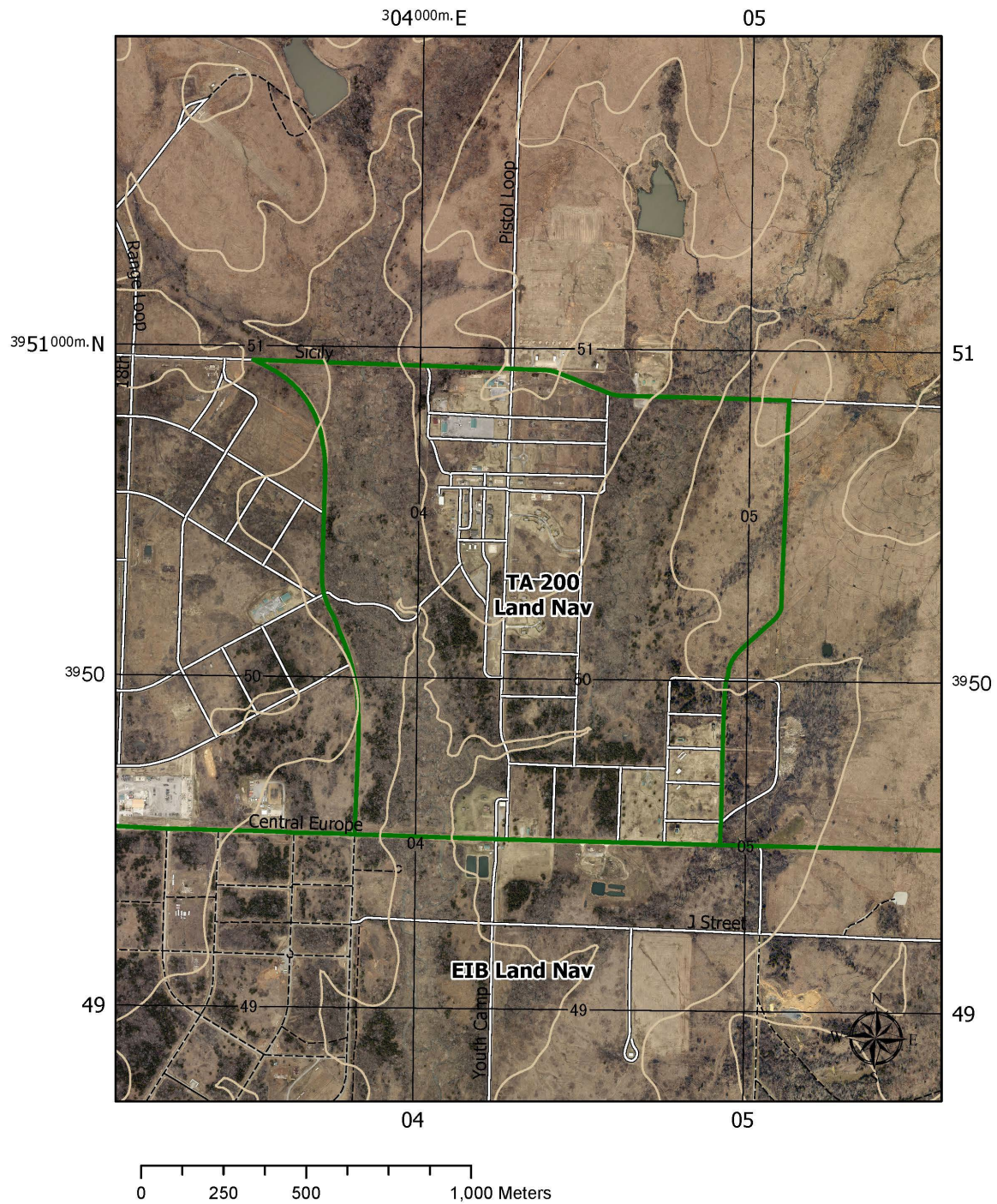
MOUT MAC - R4300



R4500. Safety precautions**LAND NAV CRS T200 (TA200 Land Navigation Course)**

- a. References:
 - (1) TC 3-25.26.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
- b. Location: UV0422149903
- c. Description and Capacity: An area used for dismounted map reading, terrain association, or unit sustainment navigational training. Course consists of 14 start points and 8 waypoints. This is a self-correcting course.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional sources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Range OIC will be responsible for preparing/turn-in of risk assessment (IAW DA PAM 385-30) prior to issue of training area and conduct of training.
 - (3) Medical personnel must be present on the range during the conduct of training. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (4) OIC must have a minimum grade of E6. Range Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Blank ammunition and pyrotechnics (other than emergency) are prohibited on this facility.
 - (2) Using units may require barricades for road/trail entrances to this course. Unit will coordinate this requirement and be responsible for placement/recovery of barricades while utilizing the training area.
- g. Road Guard Requirements: None.
- h. Impact Area closed during training: None.
- i. Range(s) closed during training: None.
- j. Barriers: None, except as may be required to facilitate unit's training objectives, and only for the duration of the training event.

TA 200 Land Nav - R4500



RPP01. Safety precautions**PUGIL PIT (Combative Pit)**

- a. References:
 - (1) TC 3-25.150.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) NGR 385-63.
- b. Location: UV02105002.
- c. Description and Capacity: Site consists of a single 150 ft. diameter pit with a demonstration area and standard TC 25-8 layout allowing training of rifle bayonet fighting skills under simulated combat conditions using protective equipment. Hand-to-hand combative training may also be performed on this site.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional sources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Range OIC will be responsible for preparing/turn-in of risk assessment (IAW DA PAM 385-30) prior to issue of training area and conduct of training.
 - (3) Medical personnel must be present on the range during the conduct of training. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (4) OIC must have a minimum grade of E6. Range Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Due to the use of force-on-force training on this range, safety will be a primary concern of the OIC and RSO.
 - (2) Personal Protection Equipment (PPE) requirements shall be to the discretion of the using unit commander provided that minimum requirements of the applicable regulations are met.
- g. Road Guard Requirements: None.
- h. Impact Area closed during training: None.
- i. Range(s) closed during training: None.

R4700. Safety precautions**WTT Lanes (Warrior Task Training)**

- a. References:
 - (1) STP 21-1-SMCT
 - (2) FM 7-0
 - (3) AR 385-63.
 - (4) DA Pam 385-63.
 - (5) NGR 385-63.
- b. Location: UV0241450611.
- c. Description and Capacity: Site consists of 18 WTT stations that can be used to instruct and evaluate basic Warrior Task Training. All stations are covered and are interconnected by trails. There is a connex at WTT station 08 that contain tables, chairs, easels, medical dummies, and some medical supplies that are available for training. The connex must be requested through Range Control prior to issuing the facility.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional sources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) OIC must have a minimum grade of E6. Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Personal Protection Equipment (PPE) requirements shall be to the discretion of the using unit commander provided that minimum requirements of the applicable regulations are met.
- g. Road Guard Requirements: None.
- h. Impact Area closed during training: None.
- i. Range(s) closed during training: None.

Warrior Task Training Lanes - R4700



Safety precautions

Dig Site

- a. References:
 - (1) FM 3-34
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) NGR 385-63.
- b. Location: UV0213649917.
- c. Description and Capacity: Site consists of approximately one (1) acre lot in which the Earth can be disturbed. This site can be utilized by horizontal engineers to train on heavy equipment operation.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional resources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Medical personnel must be present on the range during live fire operations. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (5) OIC must have a minimum grade of E6. Safety Officer must have a minimum grade of E5.
- f. Special Instructions:
 - (1) Personal Protection Equipment (PPE) requirements shall be to the discretion of the using unit commander provided that minimum requirements of the applicable regulations are met.
- g. Road Guard Requirements: None.
- h. Impact Area closed during training: None.
- i. Range(s) closed during training: None.

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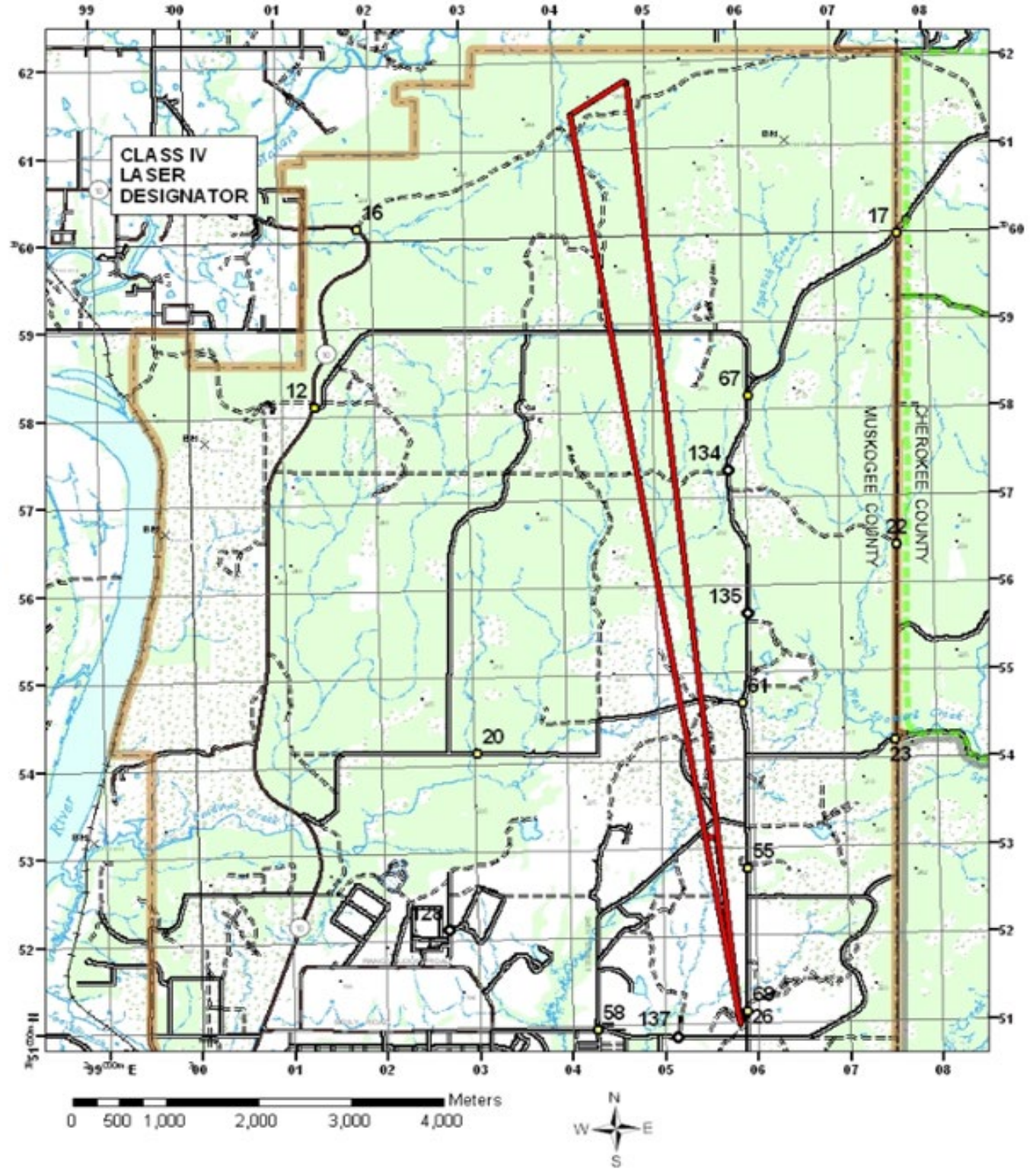


RTOWR. Safety precautions

TOW MILES Range (TOW MILES)

- a. References:
 - (1) TC 3-22.34.
 - (2) AR 385-63.
 - (3) DA Pam 385-63.
 - (4) DA Pam 385-64.
- b. Location: UV0552449657 (TOW MILES), UV0580550981 (Laser Designator Module).
- c. Description and Capacity: This range is used to train and test soldiers on the skills necessary to employ weapons, identify, track, engage, and defeat stationary and moving armor targets presented individually or as part of a tactical array. Range consists of five (5) battle positions with two (2) firing points per position and various targets arrayed from 1000 meters to 3750 meters downrange. Weapons/ammunition authorized to fire: TOW MILES or TOW Field Tactical Trainer (TFTT). Range may also be used to train and test soldiers on the skills necessary to emplace, detect, identify, and designate stationary targets in a tactical array with a Laser Designator Module, utilizing a single firing point.
- d. Communications: Using unit will establish two (2) means of communications with Range Control (40.800 MHz FM primary, 31.300 MHz FM alternate) prior to training. Using unit must provide two (2) communication sources. No additional sources are located on the range. Training will not be initiated or will immediately cease when communications with Range Control is not operational.
- e. Safety Precautions:
 - (1) Camp Gruber Range Safety Briefing and Range Packet.
 - (2) Personnel will not enter the range fan without contacting Range Control. Several live-fire ranges overlay this range fan. Other ranges impact within the TOW MILES engagement areas. The range OIC must get approval from Range Control prior to moving downrange (i.e. for targetry set-up/repair/recovery).
 - (3) Range flags will be flown from the TOW MILES flagpole and from the flagpole on Range Loop Road.
 - (4) OTHER THAN THE ATWESS CARTRIDGE, AMMUNITION OF ANY TYPE IS PROHIBITED ON THIS RANGE, INCLUDING HIGH EXPLOSIVE (HE) AND TRAINING PRACTICE (TP).
 - (5) Medical personnel must be present on the range during the conduct of training. See Appendix G for minimum qualifications. Additional medical requirements are:
 - (a) Medical personnel must have a standard aid bag and litter.
 - (b) Unit commanders or representatives must be prepared to give the grade, name, and SSN last 4 of all medical qualified personnel.
 - (c) A litter-bearing vehicle must be on site with a driver other than medical personnel and capable of transporting a litter patient.
 - (6) OIC must have a minimum grade of E7. Range Safety Officer must have a minimum grade of E6.
- f. Special Instructions:
 - (1) Range Officer in Charge and Range Safety Officer will report to Range Control for a range safety briefing and turn in a risk assessment per DA PAM 385-30 prior to issue of the range.
 - (2) The following will apply to units using Anti-Tank Weapons Effects Signature Simulators (ATWESS):
 - (a) Ensure all personnel remain clear of the 40-meter (Area F) danger area for each system.
 - (b) Ensure all personnel within 50 meters of the weapon system utilize single hearing protection.
 - (c) Ensure each ATWESS device is only armed when ready to fire.
 - (3) Specified safety procedures IAW FM 3-22.34 will be included in the orientation/safety briefing. This brief will include as a minimum:
 - (a) The prescribed safety procedures listed in Appendices E and F of FM 3-22.34.
 - (b) The specified safety precautions for the type of training device utilized on the range.
 - (c) A general orientation of the range and associated laser hazards if laser-emitting devices are utilized. Laser emitting training devices will be considered/treated as live weapons during the conduct of training.
 - (d) Detailed orientation identifying safety procedures for day/night/limited visibility movements (mounted/dismounted) between battle positions. This will include procedures to ensure vehicles/personnel take specified precautions when crossing/entering/exiting range roads. Additional risk mitigation measures/devices (i.e. flashing barricades, signs, etc.) may be requested from Range Control as available.
- g. Road Guard Requirements: None. However, using units may establish road guards along adjacent roads to limit through traffic when range is operational. Use of additional road guards is subject to Range Control approval.
- h. Impact Area closed during firing: See Range Surface Danger Zone (SDZ).
- i. Range(s) closed during training: TOW Live Fire and Breach Range.

LASER SDZ (TOW MILES RANGE)



APPENDIX B SITUATION REPORT

B-1. Introduction

This appendix lists the information required by each unit/organization conducting training on Camp Gruber. This information will be provided at the daily Range Control Coordination meeting.

B-2. Format

The required format is as listed below (Figure B-1):

Note: Additional reporting requirements may be necessary depending on unit's use of range/training area, and shall be coordinated with Range Control personnel during unit/organization check-in.

SITREP					
PRIVACY ACT STATEMENT					
AUTHORITY:		DA Pam 385-63, NG RFMSS Guidance & Standards, and CG Reg 385-1.			
PRINCIPAL PURPOSE:		To Record names, signatures, and other identifiers for the purpose of validating the trustworthiness of individuals requesting access and use of Camp Gruber Live Fire Ranges, Non-Live Fire Ranges, Training Areas, and Training Venues.			
ROUTINE USES:		Daily accountability of personnel, buildings, Ranges, Training Areas, and Training Venues. Also used to coordinate, deconflict, or plan training being conducted on Camp Gruber.			
DISCLOSURE:		Disclosure of this information is voluntary; however, failure to provide the requested information may impede delay or prevent further processing of this request.			
PART I - (To be completed by OIC. All information is based on Current 24hrs)					
1. Unit:			2. Date: (dd/mm/yyyy)		
3. Name: (Rank, Last, First, Middle Initial)			4. Phone:		
5. Number of Troops:			6. Buildings:		
7. Training Areas:			8. TADSS:		
9. LZs:					
10. Range Information: (Proposed Times)					
Range		Estimated HOT Time		Estimated COLD Time	
11. Aviation:					
Manifest #	Aircraft (Type)	Location (LZ or MGRS)	Activity	Arrival Time	Depart Time
PART II - (To be completed by OIC. All information is based on Next 24hrs)					
12. Training Events:					
NCOIC/OIC Signature:					
PART III - (To be completed by Range Control NCOIC. Capture any changes needed or same day request to update daily brief)					
13. Additional Notes:					

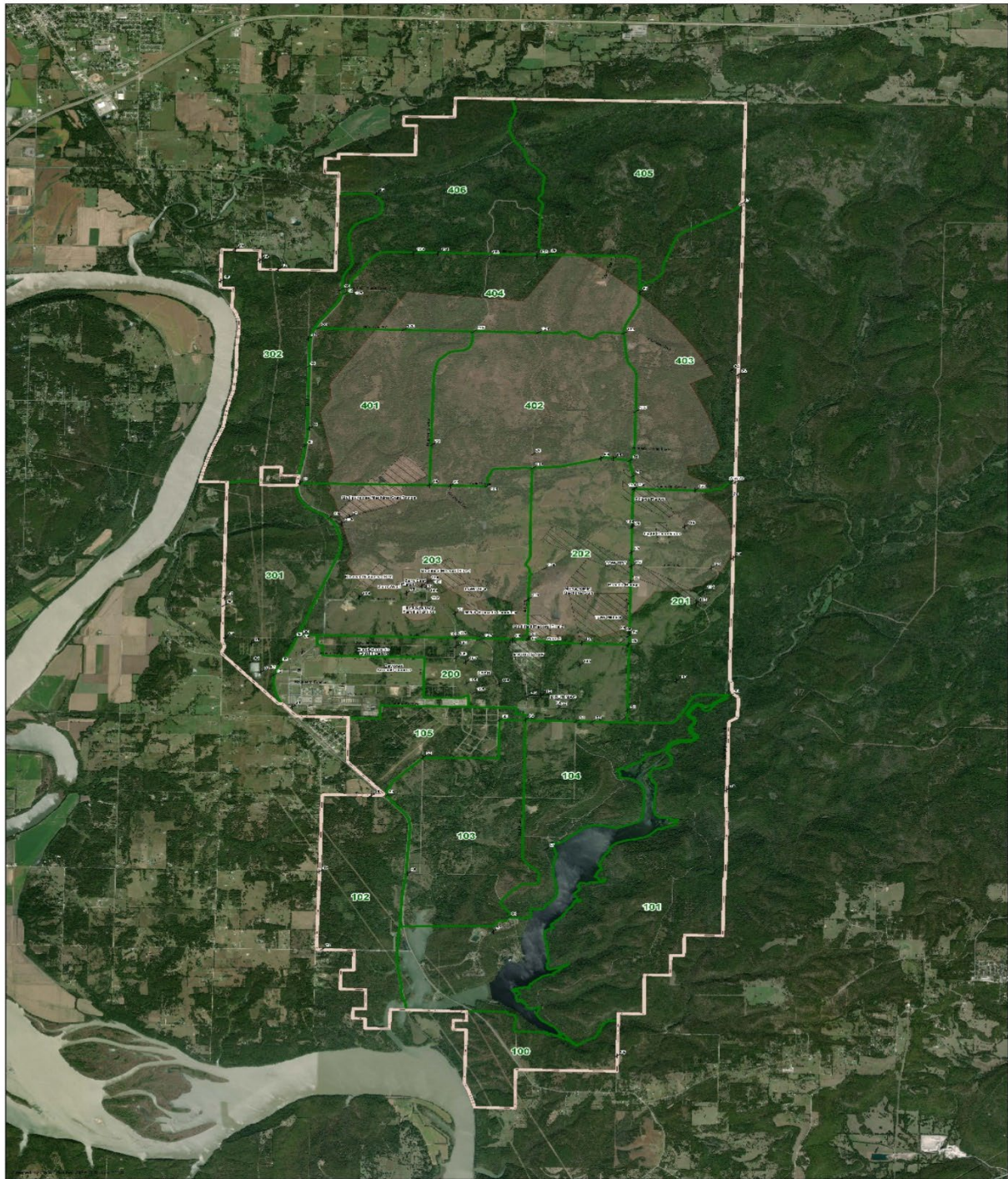
Camp Gruber RC Form 16-002, August 2024

(Figure B-1)

APPENDIX C
GATE and CANTONMENT MAP

Camp Gruber Training Center

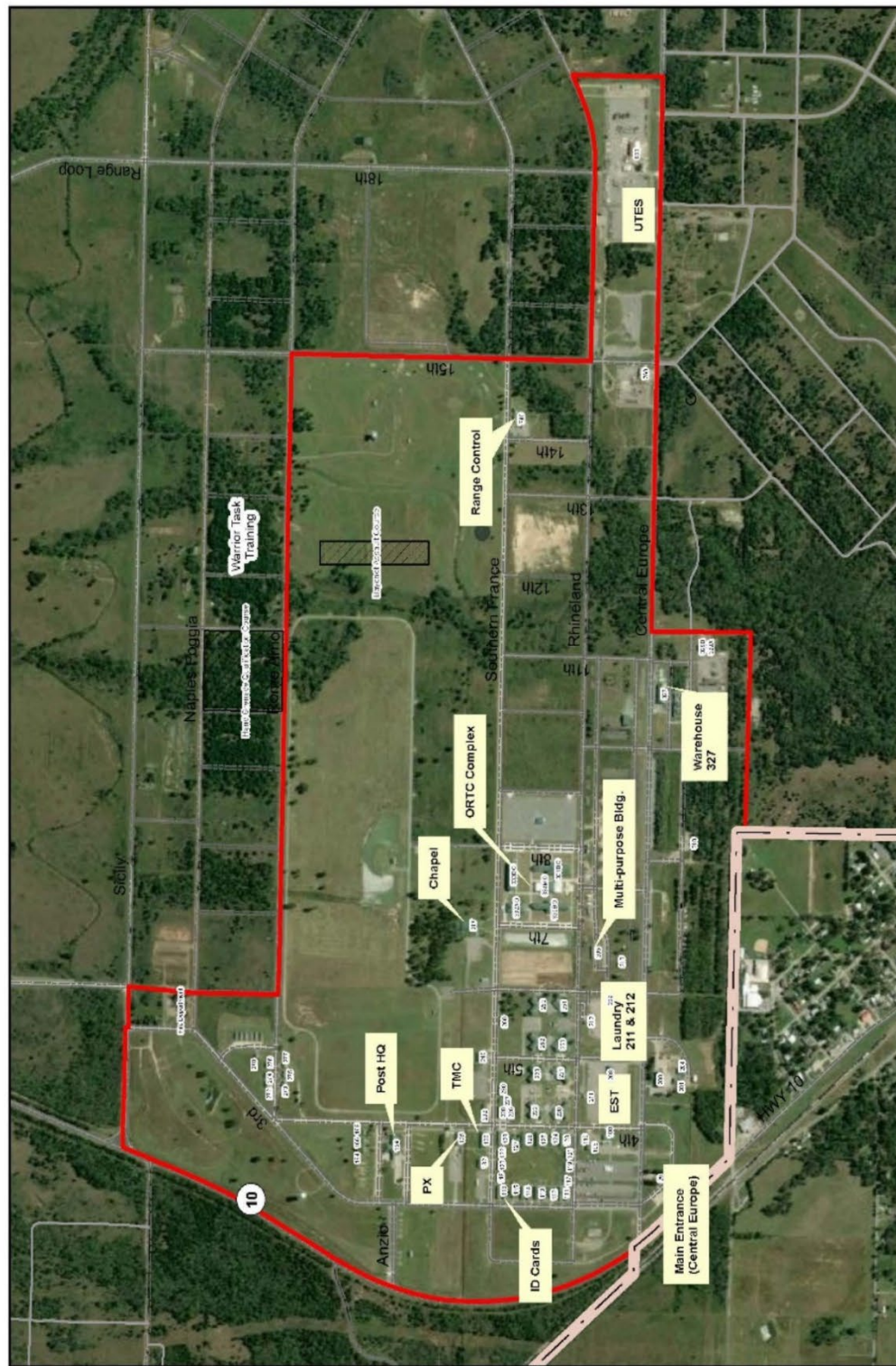
1:25,000



0 0.5 1 2 3 4 Miles



Camp Gruber Training Center Cantonment Area



Created by Camp Gruber SRP GIS April 2022

APPENDIX D

RISK MANAGEMENT

D-1. Introduction

This appendix outlines unit responsibilities in identifying and addressing risk management into their operations on the training center. Risk management is utilized in all aspects of training in accordance with DA PAM 385-30 and NGR 385-10. Using units/organizations should incorporate risk management in all operations. Some specific operations (as identified in this regulation and the range packet) require units/organizations to provide a copy of their risk assessments prior to the conduct of training/range operations. Some events will require additional documentation along with risk assessments.

D-2. Responsibilities

- a. Camp Gruber Range Management Authority will:
 - (1) Review all risk assessments provided by using units/organizations prior to approving range/facility use.
 - (2) Review unit/organization risk reduction implementation measures.
 - (3) Inform Operations and Plans of risk assessment/reduction measures that apply to HIGH or EXTREMELY HIGH-risk events.
- b. Unit commander/range OIC/observer-controller (OC)/cadre will:
 - (1) Identify assess operational hazards IAW DA PAM 385-30 and develop mitigation measures.
 - (2) Provides completed risk assessment to Range Control
 - (3) Supervises implementation of risk reduction (mitigation) measures.
 - (4) Coaches and mentors unit/range/facility leadership in risk reduction identification and implementation of the risk reduction measures.

D-3. Conducting risk assessments

Specific guidance for conducting risk assessments is located in DA PAM 385-30. There is additional specific information found in various FMs for specific weapon/ammunition systems.

APPENDIX E

RANGE / TRAINING AREA / TADSS / UAS OPENING AND CLOSING CHECKLISTS

E-1. Introduction

This appendix provides using units with the information required by Range Control prior to opening/closing any range or training area. These checklists must be initiated and signed by the range OIC and be on file with Range Control prior to the commencement of any training. A checklist must be provided for each day of the training activity, except as noted below.

- a. Range Opening/Closing Checklist--required for all ranges when conducting live-fire operations. (Figure E-1)
- b. Range Opening/Closing Checklist--required when conducting operations other than live-fire (training areas or facilities). Note: For continuous (overnight) operations in training areas, only one checklist will be required for the entire event. However, utilization and throughput information will still be collected daily. (Figure E-1)
- c. TADSS Opening/Closing Checklist—required for all virtual simulated venues. (Figure E-2)
- e. Unmanned Aircraft System (UAS) Opening/Closing Checklist--required for all flight operations of any UAS within the established Restricted Operation Zone (ROZ) on Camp Gruber. (Figure E-4)

RANGE OPENING / CLOSING CHECKLIST		
PRIVACY ACT STATEMENT		
AUTHORITY:	DA Pam 385-63, NG RFMSS Guidance & Standards, and CG Reg 385-1.	
PRINCIPAL PURPOSE:	To Record names, signatures, and other identifiers for the purpose of validating the trustworthiness of individuals requesting access and use of Camp Gruber Live Fire Ranges, Non-Live Fire Ranges, Training Areas, and Training Venues.	
ROUTINE USES:	For Unit to verify with Range Control To Occupy, Open or Close any Ranges, Training Areas and Training Venues.	
DISCLOSURE:	Disclosure of this information is voluntary; however, failure to provide the requested information may impede delay or prevent further processing of this request.	
PART I - (To be completed by OIC)		
1. Unit:	2. Date: (dd/mm/yyyy)	
3. Facility: (Range or Training Area)	4. Phone number:	
5. Primary OIC: (Rank, Last, First, Middle Initial)	6. Primary RSO: (Rank, Last, First, Middle Initial)	
7. Alternate OIC: (Rank, Last, First, Middle Initial)	8. Alternate RSO: (Rank, Last, First, Middle Initial)	
9. Weapons Description: (Type of Weapon)	10. Ammunition: (DODIC)	
<p>11. I understand by signing below that I acknowledge and will comply with all regulations and will only allow firing of Authorized weapons with approved ammunition. I understand that at no time will a NON-Live Fire Range be utilized with Live Fire Training. I further understand that any violation, or allow for the violation of DA Pam 385-63, CG_Reg_385-1 or applicable FM safety standards may result in decertification.</p> <p>OIC Signature: _____</p>		
PART II - (To be completed by Range Control Fire Desk for any unit requesting HOT Status. Any requirement not verified results in the unit not authorized to go HOT.)		
<p>12. Range Requirements:</p> <div style="display: flex; justify-content: space-between;"> <div> <input type="radio"/> OIC <input type="radio"/> MEDIC or CLS <input type="radio"/> RANGE FLAG UP <input type="radio"/> WEAPON VERIFIED (Type) </div> <div> <input type="radio"/> RSO <input type="radio"/> DRIVER <input type="radio"/> BLINKING LIGHT ON (Night Only) </div> <div> <input type="radio"/> VEHICLE <input type="radio"/> AID BAG <input type="radio"/> FM/TM for WEAPON BEING USED </div> <div> <input type="radio"/> LITTER </div> </div> <p style="text-align: right;">Radio Freq Prim: 40.80 ALT: 31.30</p>		
<p>13. LF Ranges: <input type="radio"/> You must maintain continuous communication with Range Control with a radio check made every hour while the range is open.</p>	<p>14. Non LF Range: <input type="radio"/> You must maintain continuous communication with Range Control with a radio check every 4 hours while the range is open.</p>	
PART III - (To be completed by Range Control Fire Desk to update RFMSS. Record number of rounds fired and/or pyrotechnics used during training event and identify by DODIC)		
15. UTILIZATION: (LF Range)	16. UTILIZATION: (For use of 3 continuous NON-LF training events MAX)	
<div style="display: flex; justify-content: space-between;"> <div>OCC: <input type="text"/></div> <div>HOT: <input type="text"/></div> <div>TEMP COLD: <input type="text"/></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>COLD: <input type="text"/></div> <div>Personnel on site: <input type="text"/></div> <div>CLEARED: <input type="text"/></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>DODICs: <input type="text"/></div> <div>Rounds used: <input type="text"/></div> </div> <div style="text-align: center; margin-top: 10px;"> <input type="radio"/> *Incident on Range </div> <p style="font-size: small;">*NOTE: Any Accidents, Injuries or Fires need to be annotated on Camp Gruber Range Control Form 16-006 Incident Report and attached to Range Opening / Closing Form.</p>	<div style="display: flex; justify-content: space-between;"> <div>Date (2nd Day)</div> <div>Date (3rd Day)</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>OCC: <input type="text"/></div> <div>HOT: <input type="text"/></div> <div>TEMP COLD: <input type="text"/></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>COLD: <input type="text"/></div> <div>Personnel on site: <input type="text"/></div> <div>CLEARED: <input type="text"/></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div><input type="radio"/> *Incident on Range</div> <div><input type="radio"/> *Incident on Range</div> </div> <p style="font-size: small;">*NOTE: Any Accidents, Injuries or Fires need to be annotated on Camp Gruber Range Control Form 16-006 Incident Report and attached to Range Opening / Closing Form.</p>	
<p>17. RFMSS Updated: (To be initialed by FDO when event is completed and all information has been entered into RFMSS)</p> <div style="display: flex; justify-content: space-between;"> <div>RCNI: _____</div> <div>FDO: _____</div> <div>DATE: _____</div> </div>		

Camp Gruber RC Form 16-003, August 2024

(Figure E-1)

TADSS Opening/Closing Checklist

Unit: _____ RCNI: _____ Date: _____

Facility: (select system)

☐

EST

☐

VCOT

☐

VBS3

☐

CFFT

☐

OTHER

****The OIC is the ONLY authorized person to sign for the facility****

Officer in Charge (OIC):

Rank _____ Last Name _____ First Name _____

Operator (if different from OIC):

Rank _____ Last Name _____ First Name _____

Signature of OIC: _____ Date: _____

OIC MUST COMPLETE THIS SECTION AFTER TRAINING IS COMPLETE.

Completed form will be turned into Range Control when building is ready to be cleared.

TADSS Opening Time: _____ / _____
(First Day) Date Time

TADSS Closing Time: _____ / _____
(Last day) Date Time

Number of personnel trained:

_____ Day 1

_____ Day 2

_____ Day 3

RANGE CONTROL USE ONLY

Date and time facility was issued: _____ / _____

Issued by: _____ Signature: _____

Date and time facility was cleared: _____ / _____

Cleared by: _____ Signature: _____

****Range Control personnel must physically clear the facility. Clearing checklist located in Bldg 107****

(Figure E-2)

UNMANNED AIRCRAFT SYSTEM (UAS) RANGE OPENING / CLOSING CHECKLIST	
Privacy Act Statement	
AUTHORITY	AR 385-63, DA PAM 385-63, and CGR 385-1
PRINCIPAL AUTHORITY	To record names, training information, and other identifiers for the purpose of validating requirements set forth by the AUTHORITY to utilize Ranges, Training Areas, and Restricted Operating Zones (ROZ) at Camp Gruber Training Center.
ROUTINE USES	For Units to verify with Range Control Personnel that all requirements have been met to Occupy, Open, or Close any Range, Training Area, or ROZ at Camp Gruber Training Center.
DISCLOSURE	Disclosure of this information is voluntary; however, failure to provide the requested information will impede delay or prevent further processing of this request
PART I (To be completed by OIC)	
1. UNIT	2. DATE
3. FACILITY (Range or Training Area)	4. Phone Number
5. Primary OIC (Rank, Last, First)	6. Primary RSO (Rank, Last, First)
7. Secondary OIC (Rank, Last, First)	8. Secondary RSO (Rank, Last, First)
9. Operator (Rank, Last, First)	10. UAS Type (Make / Model)
<p>11. I understand by signing below that I acknowledge and will comply with all regulations and will only allow flying of Authorized Aircraft identified on this form. I understand that at no time Aircraft launch without being in a "Hot" status, as coordinated with Range Control. I further understand that any violation or allowing for the violation of UAS procedures set forth by the CGR 385-1 may result in "DECERTIFICATION."</p> <p>OIC Signature: _____</p>	
PART II (To be completed by Range Control Fire Desk Operator. Any requirement not verified will prohibit unit from going "HOT.")	
<p>12. Range Requirements:</p> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div><input type="radio"/> OIC</div> <div><input type="radio"/> RSO</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div><input type="radio"/> CLS or Medic</div> <div><input type="radio"/> DRIVER</div> <div><input type="radio"/> VEHICLE</div> <div><input type="radio"/> AID BAG</div> <div><input type="radio"/> LITTER</div> </div> <div style="display: flex; justify-content: space-around; margin-top: 5px;"> <div><input type="radio"/> OPERATOR</div> <div><input type="radio"/> UAS TYPE</div> </div>	
<p>13. UAS Ranges: You are now authorized to conduct UAS Operations in accordance with your mission request. You must maintain continuous communication with Range Control via radio checks made every hour while in a "HOT" status. <input type="radio"/></p>	
PART III (To be completed by Range Control Fire Desk Operator to update RFMSS. Identify number of personnel trained if training operators and number of all launches regardless mission type.)	
<p>14. UTILIZATION:</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>OCC: <input style="width: 100px;" type="text"/></div> <div>HOT: <div style="border: 1px solid black; width: 100px; height: 40px; position: relative;"> <div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; bottom: -10px; left: 0; right: 0; border-top: 1px solid black;"></div> </div></div> <div>TEMP COLD: <div style="border: 1px solid black; width: 100px; height: 40px; position: relative;"> <div style="position: absolute; top: -10px; left: 0; right: 0; border-bottom: 1px solid black;"></div> <div style="position: absolute; bottom: -10px; left: 0; right: 0; border-top: 1px solid black;"></div> </div></div> <div>COLD: <input style="width: 100px;" type="text"/></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div>Personnel Trained: <input style="width: 100px;" type="text"/></div> <div>Number of Launches: <input style="width: 100px;" type="text"/></div> <div>CLEARED: <input style="width: 100px;" type="text"/></div> </div> <div style="text-align: center; margin-top: 10px;"> <input type="radio"/> Incident on Range </div>	
<p>*NOTE: Any Accident(s), Injury(ies), or Fire(s) need to be annotated on Camp Gruber Range Control Form 16-006, <i>Incident Report</i>, and attached to this form.</p>	
<p>15. RFMSS Updated: (To be completed by FDO when event is completed, and ALL information has been entered into RFMSS Range Control Fire Desk)</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>RCNI: _____</div> <div>FDO Initials: _____</div> <div>DATE: _____</div> </div>	

CGRC Form 16-004, August 2024

(Figure E-3)

APPENDIX F
COMMANDER'S CERTIFICATION MEMORANDUM

F-1. Introduction

This appendix provides an example of the required certification memorandum. This document is required prior to issue of any range or training area to unit/organizational personnel. ONLY certified OICs and RSOs will be issued ranges or training areas.

Commander's Certification Memorandum
Example Format

(Unit Designation/Letterhead)

Office symbol (MARKS Code)

Date

MEMORANDUM FOR Commander, Camp Gruber Training Command, (Attn: Range Control), 6000 HWY 10, Braggs, OK 74423-0029

SUBJECT: Certification of Officer In Charge (OIC) and Range Safety Officer (RSO)

1. The following personnel assigned or attached to this unit/organizations are certified to perform the duties as OIC or RSO of ranges and training facilities at Camp Gruber.

<u>NAME</u>	<u>GRADE</u>	<u>OIC</u>	<u>RSO</u>
<i>Last, First, MI</i>	<i>Pay Grade</i>	<i>Yes--all ranges</i>	<i>Yes--all ranges</i>
<i>Last, First, MI</i>	<i>Pay Grade</i>	<i>Yes--all ranges</i>	<i>Yes--all ranges</i>
<i>Last, First, MI</i>	<i>Pay Grade</i>	<i>Yes--small arms only</i>	<i>Yes--all ranges</i>
<i>Last, First, MI</i>	<i>Pay Grade</i>	<i>Yes--small arms only</i>	<i>Yes--all ranges</i>

2. These individuals meet the qualification requirements of DA Pam 385-63 and CGR 385-1 pertaining to range and training facility operations.

3. Above personnel understand that they must receive the required area safety briefings prior to issue of any range or training area.

///SIGNED///

Commander's Signature Block
(Grade O5 or above)

EXAMPLE

(Figure F-1)

APPENDIX G

RANGE OIC/RSO/MEDIC REQUIREMENTS

G-1. Introduction

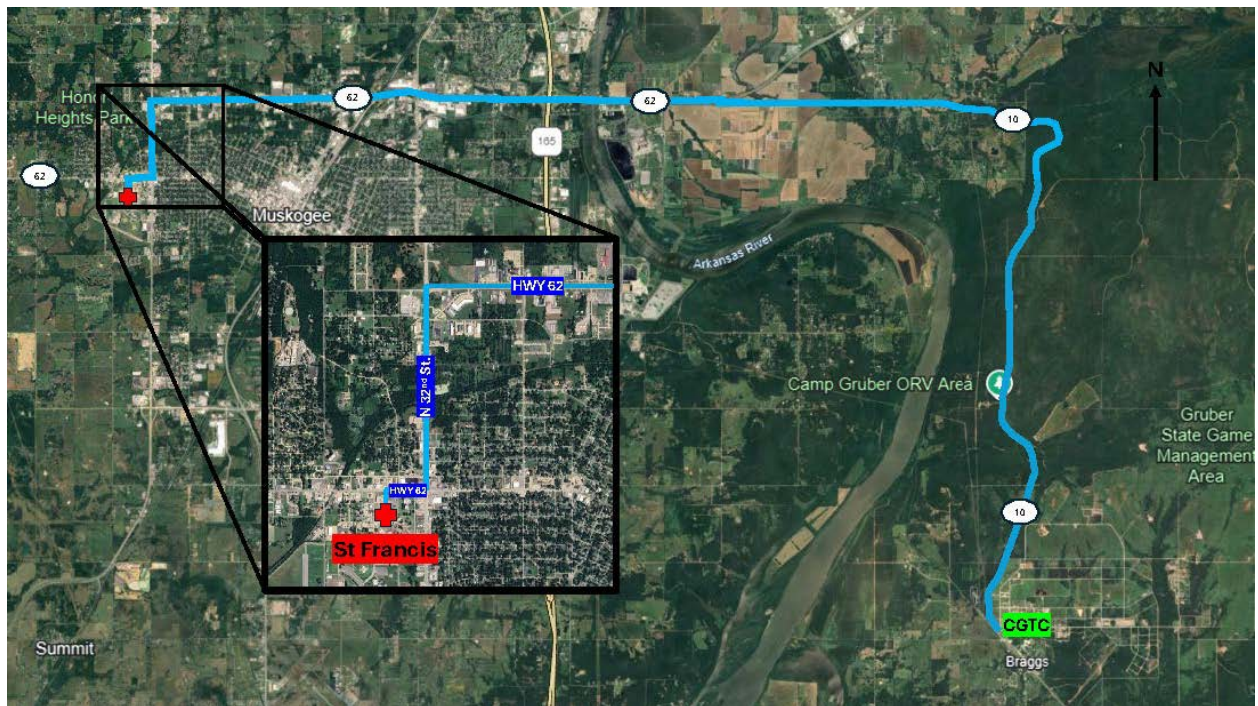
This appendix defines the range OIC, RSO, and medical support requirements by type of range/facility. Additional requirements are listed in Appendix A and the range packet. Civilian agencies can substitute certain work-related job specialties and titles in lieu of OIC/RSO grade, and for medic requirements. All substitutions are subject to the approval of Range Control.

Table G-1 Officer-in-charge, range safety officer appointment, and medical requirements				
Weapon system/Training Facility	OIC ¹	RSO ¹	Medic¹⁰	TC3 Certified Soldier
Practice hand grenades; sub-caliber training devices; laser devices; firing devices; simulators & trip flares.	E-6	E-5	-	X
Small Arms .50 CAL and below	E-6	E-5	-	X ₈
Chemical agents and smoke. ²	E-6	E-5	-	X
Aerial gunnery & air defense weapons; live grenades, grenade launchers, and grenade machine guns; live mines & demolitions; tank & fighting vehicle cannons.	E-7	E-6	X	-
Field artillery. ³	E-7	E-6	-	X
Mortars	E-6	E-6 ⁴	X	-
Direct fire antitank rockets and missiles	E-7	E-6	X	-
CALFEX/CAX using outside fire support, troop, battery, squad, platoon, company; or battalion and larger. ⁵	E-7	E-6	X	-
MOUT sites, Obstacle Course, Rappel Towers. ⁶	E-7	E-6	-	X
Training areas. ⁷	E-6 ⁷	E-5 ⁷	-	X
EST and Training Aids, Devices, Simulators, and Simulations (TADSS) other than HEAT	E-6 ⁹	-	-	X
Notes: 1. Civilians in the grade of GS-07 and above, or equivalent, may act as OIC; GS-05 and above, or equivalent, may act as RSO. Warrant Officer Candidates and Officer Candidates are authorized to act as the RSO for all ranges. This lists minimum range requirements. 2. For the Marine Corps, OIC or RSO must be E-4 and above and be chemical, biological, radiological, and nuclear (CBRN) when conducting CBRN or smoke training. For the Army, OIC or RSO must be CBRN qualified when conducting CBRN or smoke training. 3. Use of E-7s as OICs is authorized only when approved by the senior commander (Army)/installation commander (Marine Corps). Duties of the RSO are normally performed by either the battery executive officer or the platoon leader. 4. RSO for Marine Corps can be an E-5 for mortar training activities. 5. For battalion or larger CALFEX/CAX, OIC will be a field grade officer; exercise RSO will be E-7 or above. 6. Must have current Rappel Master Certification on file prior to issue of any rappelling facilities. 7. OIC and RSO are required only if units are using pyro or blank ammunition or are conducting STX lanes. Units not using ammunition or conducting training are required to sign for the training area (TA) prior to occupying the TA. 4-hour radio checks mandatory while occupied. 8. One (1) TC3 Certified Soldier must be present per 100 Soldiers training. 9. TADSS operations requires an E6 (regardless of operator qualification) to sign for a TADSS facility or equipment, AND a qualified operator (regardless of grade). For use of portable TADSS on a range or training area, then OIC/RSO requirements for that range/training area shall also apply. 10. A civilian equivalent Emergency Medical Technician (EMT) or Emergency Medical Responder (EMR) with valid certification is authorized as a substitute for a medic.				

Waivers **WILL NOT** reduce standards below those outlined in NGR 385-63, TC 3-20.40 or MEDCOM PAM 40-12.

Medical requirements for CALFEX or High-Risk training events cannot be waived. All exceptions will be considered on a case-by-case basis, based on Deliberate Risk Assessment, and approved by the RMA.

APPENDIX H
CIVILIAN MEDICAL FACILITIES
(Figure H-1)



Exit main gate and turn right.
Follow HWY 10 to HWY 62, turn left (west) onto HWY 62.
Stay straight on HWY 62 (Shawnee Bypass) until you reach HWY 69.
Turn Left onto HWY 69, go to W. Okmulgee St.
Turn Right, go one (1) block, St. Francis Hospital is on the left.

APPENDIX I
COLLECTIVE LIVE FIRE CHECKLIST

Collective Live Fire Checklist		
Units requesting to conduct a NON-Standard Range must submit the following documentation to Range Control 120 days prior to the event date.		
Unit:	Event:	Event Date:
DOCUMENTATION REQUIRED	Range Safety NCO (initial and date)	Senior Range Safety NCO (initial and date)
Personnel Weapons Qualification Roster (within 12 months of event).		
OC/Cadre Qualification Roster.		
Coordination lines or checkpoints to identify maneuver limits.		
SDZ drawn by GIS for all weapon systems/DODICs being used.		
Risk Assessment. NOTE: Risk assessments must include ammunition plan.		
Communication and control measures.		
Specific controls for firing while moving.		
Exception to policy (if required).		
COMMENTS: <hr/> <hr/>		
APPROVED BY RANGE MANAGEMENT AUTHORITY: <hr/> <div> <div>Printed Name</div> <div>Signature</div> <div>Date</div> </div>		

(Figure I-1)

APPENDIX J
NON-STANDARD LIVE FIRE CHECKLIST

NON-STANDARD Live Fire Checklist		
Units requesting to conduct a NON-Standard Range must submit the following documentation to Range Control 120 days prior to the event date.		
Unit:	Event:	Event Date:
DOCUMENTATION REQUIRED	Range Safety NCO (initial and date)	Senior Range Safety NCO (initial and date)
Detailed scenario with sketches/overlays that define the course of fire.		
LOI detailing course of fire. NOTE: LOI must include specific controls for firing while moving, communication, control measures and timeline of event.		
List of weapons system being used with DODIC type.		
SDZ drawn by GIS for all weapon systems/DODICs being used.		
Risk Assessment. NOTE: Risk assessments must include ammunition plan.		
Exception to policy (if required).		
COMMENTS: <div style="border-bottom: 1px solid black; height: 20px; margin-bottom: 10px;"></div> <div style="border-bottom: 1px solid black; height: 20px;"></div>		
APPROVED BY RANGE MANAGEMENT AUTHORITY: <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 33%; border-bottom: 1px solid black;"></div> <div style="width: 33%; border-bottom: 1px solid black;"></div> <div style="width: 33%; border-bottom: 1px solid black;"></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> Printed Name Signature Date </div> APPROVED BY STATE SAFETY: <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 33%; border-bottom: 1px solid black;"></div> <div style="width: 33%; border-bottom: 1px solid black;"></div> <div style="width: 33%; border-bottom: 1px solid black;"></div> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> Printed Name Signature Date </div>		

(Figure J-1)

APPENDIX K

AMMUNITION AND EXPLOSIVES SAFETY SOP

K-1. References

- a. AR 385-63
- b. AR 385-64.
- c. DA Pam 385-63
- d. DA Pam 385-64.
- e. TM 9-1300-206

K-2. Handling of ammunition on ranges

Ammunition will be transported and handled only under the direct supervision of qualified personnel who are thoroughly familiar with the safety regulations listed in the applicable references, including FM and/or TM for the weapon system ammunition utilized.

- a. No smoking is allowed within 50 feet of ammunition that is stored, being handled, or on the firing line. Troop concentrations will not be within 200 feet of ammunition storage or handling points.
- b. OICs will ensure that NO ammunition, explosives, or components thereof remain in the possession of any individual upon leaving the range.
- c. The OIC of any training exercise involving the use of blank ammunition will conduct a safety briefing for all personnel prior to issue of ammunition.
- d. Blank ammunition will only be issued to personnel with blank adapters mounted on their weapons.
- e. Ammunition will not be stored or transported in the cantonment (area identified in APPENDIX C). Ammunition and explosives will enter/exit Camp Gruber through Gates 8/9 (Sicily Road/OK Highway 10). Coordination must be made prior to arrival for gate access and access to Ammunition Holding Area (AHA) or approved alternative storage site.

K-3. Field storage of ammunition

- a. Permission for overnight/field storage of ammunition, explosives, or components thereof, on ranges must be obtained from the Range Management Authority /NCOIC.
- b. Guards must be posted at temporary field ammunition storage sites at all times and maintain primary (FM) and secondary communication with Range Control.
- c. All field storage of ammunition will be performed in accordance with DA Pam 385-64 and TM 9-1300-206.

K-4. Ammunition Holding Area (AHA) procedures

- a. The Ammunition Holding Area (AHA) is for temporary storage of ammunition, explosives, and pyrotechnics for units utilizing the ranges and training areas of Camp Gruber. This facility consists of twelve (12) storage magazines within a perimeter fence. All magazines are approved for storage of material with DOT Hazard Class 1.1 through 1.4, with the following exceptions:
 - (1) Material of Class 1.1 or 1.2 may not be stored in Containers 1 and 2 or Containers 9-12.
 - (2) Containers 3 through 8 may not be used for storage of Class 1.2 material with a fragmentation distance greater than 1200 feet.
 - (3) Total Net Explosive Weight (NEW) of all munitions stored within the AHA will not exceed 10,000 pounds.
- b. Inhabited Building Distance (IBD) for the AHA is 1250 ft.
- c. Units are responsible for ensuring that any mixed storage of material with differing Hazard Class is in accordance with the applicable regulations regarding compatibility and segregation of materials. Storage of blank ammunition with live ammunition should be avoided when possible.
- d. Units must provide Range Control with a copy of their DA Form 581 showing a listing of all ammunition by DODIC and quantity prior to using the site.
- e. Units are responsible for ensuring display of the appropriate Firefighting Guidance Symbol IAW AR 190-11 mounted to the left of the AHA entry (numeral "1" for Class 1.1, numeral "2" for Class 1.2, etc.). Symbol will represent the class with the greatest danger stored within the AHA (Class 1.1 has the greatest danger, 1.4 has the least). Coordination with Range Control and/or other unit(s) may be necessary to determine the appropriate symbol when AHA is occupied by more than one unit.
- f. Units will assume all security requirements IAW AR 190-11 and all accountability requirements IAW DA Pam 710-2 when utilizing the AHA.
- g. Only vehicles approved for DOT Hazmat transportation will enter the AHA.

h. At least one (1) representative of the using unit with authorized access to the AHA **MUST** remain on post at all times while unit munitions are stored in the AHA. Range Control must be provided emergency contact information for this representative.

K-5. Demolition Ranges

- a. Light Demo Range
 - (1) A maximum of 250 lbs. of non-fragmenting explosives can be surface detonated at a time.
 - (2) A maximum of 320 lbs. of non-fragmenting explosives can be subsurface detonated at a time.
 - (3) A maximum of 2,500 lbs. of non-fragmenting explosives can be stored on the range.
 - (4) Exclusion area is 2,603 feet.
- b. Breach Range
 - (1) A maximum of one (1) pound of non-fragmenting explosives can be surface detonated at a time.
 - (2) A maximum of 25 lbs. of non-fragmenting explosives can be stored on the range.
 - (3) Exclusion area is 200 feet.
- c. Units requesting to utilize both the Light Demo Range and the Breach Range simultaneously must get approval from the RMA. A packet must be submitted 90 days prior to the training event to the Range Operations Manager. The following documentation will be submitted:
 - (1) Risk Assessment for each range.
 - (2) Commander's concept of operations outlining the operations for both ranges.

K-6 Risk Management

- a. A Deliberate Risk Assessment Worksheet (DD Form 2977) will be filled out for all ammunition and explosive activities to include storage and transportation as outlined in DA PAM 385-64.
- b. All charges will use a dual-primed system (dual-initiated, dual-fired dual-primed) method to protect against misfires.

Figure K-1
AHA Layout



APPENDIX L
AIRCRAFT NOISE COMPLAINT QUESTIONNAIRE

AIRCRAFT NOISE COMPLAINT QUESTIONNAIRE

This questionnaire is to be used whenever a person contacts your office concerning aircraft noise problems. The form contains a series of steps involving questions to be asked of the inquirer, along with directions to be followed for various types of answers. Complete the following before beginning with Step 1.

Date/Time complaint received: _____

Complaint received by: _____

Method of complaint (please check one):

Telephone _____

Personal Visit _____

Letter/Email _____

STEP 1

Question: Are you calling to obtain information or to make a formal complaint?

- a. If information: Provide information, terminate interview, and file this form.
- b. If complaint: Go to STEP2.

STEP 2

Read the following statement to the inquirer:

"In order to help avoid future noise disturbances, we have developed a series of questions designed to pinpoint the exact cause of your complaint. I would like to ask you these questions."

Question: Are you willing to answer some questions about your complaint?

- a. If yes: Go to STEP 3.
- b. If no: Terminate interview and file this form.

STEP 3

Question: What is your name, address, and telephone number?

Question: Where are you located in relation to our facility?

North _____ Northeast _____ East _____ Southeast _____

South _____ Southwest _____ West _____ Northwest _____

Estimated distance from facility: _____ Near city: _____

Question: When did the annoying noise occur? Date: _____ Time: _____

Question: What type of aircraft was making the noise?

Helicopter _____ Airplane _____ Type (if known) _____ Quantity (if known) _____

STEP 4

Question: Where were you when the aircraft flew over?

Indoors _____ Outdoors _____ Driving _____

Question: How did the noise affect you?

Startled me _____ Woke me _____ Annoyed me _____ Frightened the pet(s) _____

Disturbed livestock _____ Rattled the house _____ Woke a child _____

Question: Did you see the aircraft or hear it pass by? Saw _____ Heard only (go to step 6) _____

STEP 5

Visual description of aircraft:

Type and number of aircraft (if known): _____

Check one of the following:

_____ Helicopter with one rotor _____ Helicopter with two rotors _____ Helicopter with unknown number of rotors

_____ Jet with one engine _____ Jet with two engines _____ Jet with unknown number of engines

_____ Plane with one propeller _____ Plane with two propellers _____ Plane with unknown number of propellers

Question: What color was the aircraft? _____

Question: Did it have a red cross or any other special markings? _____

Question: In what direction was the aircraft flying? _____

Question: About what altitude would you estimate the aircraft was flying? _____

Any other information? _____

STEP 6

Question: How many aircraft do you think were in the flight? _____

Question: What do you think the aircraft was/were doing (check below)?

_____ Landing _____ Taking off _____ Passing by _____ Circling

Question: What direction do you think the aircraft was flying? _____

Question: What altitude do you think the aircraft was/were flying? _____

THIS CONCLUDES THE INTERVIEW.

Now, **TERMINATE** the interview politely as possible. Assure the person that you will do what you can to investigate and resolve the situation and be in contact with them. Always thank the complainant for calling when you end the interview.

DISTRIBUTION:

Copy to: 1-CGTC Range Control
1-OKSAO
1-OKFAC
1-OKENV
1-OKSAFE file

APPENDIX M

NON-LETHAL MUNITIONS

M-1. Definition

Department of Defense Directive (DODD) 3000.3 defines non-lethal weapons (NLW) as "weapons that are explicitly designed and primarily employed so as to incapacitate personnel or materiel while minimizing fatalities, permanent injury to personnel, and undesired damage to property and the environment." Furthermore, "unlike conventional lethal weapons that destroy their targets principally through blast, penetration, and fragmentation, NLW employ means other than gross physical destruction to prevent the target from functioning. NLW are intended to have relatively reversible effects on personnel and materiel."

M-2. General

- a. The term "non-lethal" does not mean zero mortality or nonpermanent damage. Fatal injuries can occur if munitions are employed at a distance that is less than the determined minimum safe engagement range.
- b. The Inter-Service Non-Lethal Individual Weapons Instructors Course is the only course in the Department of Defense that is certified to produce instructors who will train individuals in the proper employment of NLWs.
- c. Head shots with NLW are not authorized.
- d. Many non-lethal munitions have both a maximum effective range and minimum target engagement distance. Individuals short of the minimum target engagement distance may suffer severe injuries or death. The effects of most non-lethal munitions are greatly decreased at longer ranges.
- e. Hazardous effects from certain NLW munitions can be experienced behind the firing line.
- f. Non-Lethal munitions that are authorized for usage on Camp Gruber are DODICs: 12GA - M1012 (AA51) and M1013 (AA52); 40MM - M1006 (BA06) and M1029 (BA13).
 - (1) The M1012 (AA51) projectile is a fin-stabilized projectile made of rubber designed for point targets; minimum engagement is 10m with a maximum effective range of 20m.
 - (a) Minimum safe distance for personnel, equipment and facilities for the M1012 (AA51) is 50m behind and 300m to the left and right of the firing line.
 - (2) The M1013 (AA52) is a ball projectile and consists of 18 PVC rubber compound balls designed for crowds/groups; minimum engagement is 10m with a maximum effective range of 20m.
 - (a) Minimum safe distance for personnel, equipment and facilities for the M1013 (AA52) is 20m behind and 150m to the left and right of the firing line.
 - (3) The M1006 (BA06) is a sponge grenade cartridge comprised of a 40mm bullet-shaped foam rubber round, and the minimum engagement for this NLW is 10m, with a maximum effective range of 20m. DO NOT skip fire this round.
 - (a) Minimum safe distance for personnel, equipment and facilities for the M1006 (BA06) is a 44m radius behind the firing line.
 - (4) The M1029 (BA13) is a crowd-dispersal grenade consisting of 48 rubber balls and the minimum engagement range for this NLW is 10m and the maximum effective range is 30m.
 - (a) Minimum safe distance for personnel, equipment and facilities for the M1029 (BA13) is 15m behind and 110m to the left and right of the firing line.
 - (5) Firing of NLW into personnel, wildlife or surfaces that may potentially rebound munitions is strictly prohibited.

Appendix N

SIMMUNITIONS / SIMULATORS / PYROTECHNIC SIGNALS / SMOKE GRENADES

N-1 SIMMUNITIONS

- a. All personnel engaged in close combat mission capability kit (CCMCK) force-on-force training will wear PPE in accordance with the procedures, restrictions, and other guidance contained in technical/operator manuals, references, and/or pamphlets (TM 9-6920-3700-10). No personnel will be allowed within 75m of the outermost boundary of the training area when force-on-force training is being conducted without meeting the minimum PPE safety requirements.
- b. All participants will be instructed that no head shots will be taken.
- c. The minimum engagement distance is 5m.
- d. All participants will be inspected by the RSO, NCOIC, or OIC prior to the initiation of training to ensure that PPE is worn and that employed individual weapons (M16/M4/M249/M9/M11) have been properly converted to fire low velocity marking ammunition.
- e. Single hearing protection is required to be worn within 5m of 9mm and 5.56mm weapons using CCMCK marking ammunition during firing.

N-2 PYROTECHNIC SIGNALS

a. Pyrotechnics range from flares to signals to simulators. Pyrotechnic signals supplement or replace normal communication means, mark locations, chart enemy courses, and provide illumination for search and rescue missions. Use of all pyrotechnics is prohibited in cantonment. The four types of pyrotechnic signals are:

- Communication signals (Star Clusters, Star Parachutes, Smoke Parachutes, and Smoke Grenades)
- Trip flares.
- Simulated signals (Artillery Ground Burst Simulator, Hand Grenade Simulator, and Booby Trap

Simulators)

- Illumination ground signal kits (Pen Flares)

(1) COMMUNICATION SIGNALS

(a) The two classifications of pyrotechnic communication signals are handheld signals and ground smoke signals. Both types of signals come in varied color patterns. Soldiers can use these patterns to coordinate troop movements and, in the case of an emergency, designate pick-up points.

(2). TRIP FLARES

(a). Use surface trip flares to—

- Provide early warning of infiltration of enemy troops or signaling.
- Illuminate an immediate area.
- Ignite fires.
- Force the enemy to withdraw.

(3). SIMULATED SIGNALS

(a). Some uses for pyrotechnic simulators are to provide early warning signals and to illuminate the immediate areas; however, the primary design is to imitate the sounds and effects of combat detonations during field training exercises.

(4). ILLUMINATION GROUND SIGNAL KITS

(a). The pen gun flare supports the small-unit leader in fire control, maneuver, and initiating operations such as ambushes. These signals are also a component of air crewmen's survival vest and used for distress signaling or to identify ground locations for aircraft.

Appendix O

References

Section I

Required Publications

CGR 210-1

Camp Gruber Joint Maneuver Training Center-Light Regulation

CGR 200-1

Environmental Protection and Enhancement

NGR 385-63

Army National Guard Range Safety Program, Policy, and Standards

NGR 385-64

Army National Guard Ammunition and Explosives Safety Standards

AR 385-63

Range Safety

DA Pam 385-63

Range Safety

DA PAM 385-64

Ammunition and Explosives Safety Standards

AR 385-10

Army Safety Program

DA Pam 385-10

Army Safety and Occupational Health Program Procedures

AR 190-11

Physical Security of Arms, Ammunition, and Explosives

AR 710-2

Secondary Item Policy and Retail Level Management

Section II

Related Publications

AR 75-1

Malfunctions Involving Ammunition and Explosives (RCS CSGLD--1961(MI))

AR 95-2

Airspace, Airfields/Heliports, Flight Activities, Air Traffic Control, and Navigational Aids

AR 200-1

Environmental Protection and Enhancement

AR 350-19

The Army Sustainable Range Program

AR 350-38

Training Device Policies and Management

DA Pam 385-30

Risk Management

DA Pam 385-40

Army Accident Investigation and Reporting

TC 4-02.3

Field Hygiene and Sanitation

TC 21-305-20

Manual for the Wheeled Vehicle Driver

NGR (AR) 200-3

State and Federal Environmental Responsibilities

MEDCOM Pam 40-12

Medical/Dental Site Support Plan to Annual Training

MIL-HDBK-828A

Military Handbook, Laser Range Safety

TC 25-8

Training Ranges

ATP 5-19

Risk Management