

FIRING/NONFIRING DATA

For use of this form see USAIC Regulation 350-19; the proponent agency is DPTMS

TO: Chief,
Range Division,
Directorate of Plans, Training, Mobilization and Security
Fort Benning, GA 31905

Date: 11 NOV 2011
Range: Brooks Range
Title: Abrams Master Gunner Course
Problem No: N/A

Log #05-01-11

THRU: S-3, 316 CAV
Fort Benning, GA. 31905

FROM: M Troop, 3-16 CAV
Fort Benning, GA. 31905

SECTION I, TYPE OF TRAINING

a. Live Fire b. Non-live Fire CP/Controller Coordinates: 1057 9937 (Tower)

SECTION II, DEMOLITIONS/GRENADES/MINES/PYROTECHNICS

Coordinates	Type	Model/DODAC	Size of Charges
N/A			

SECTION III, WEAPONS/AMMUNITION REQUESTED

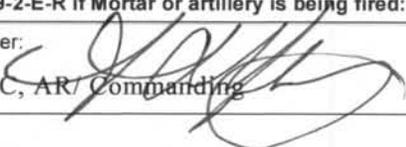
Coordinates of Weapons Position	Type Weapon/Model Number	Type Ammunition	Left Limit	Right Limit
See weapons & ammo enclosure	See weapons & ammo enclosure	See weapons & ammo enclosure	See weapons & ammo enclosure	See weapons & ammo enclosure

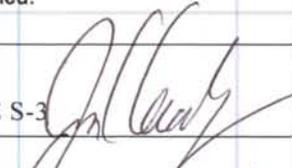
SECTION IV, LIVE FIRE EXERCISES Attach the following:

SECTION V, NON-LIVE FIRE TRAINING

- Scenario of training to be conducted:
- Sketch of area:
- Risk Assessment:
- Attach FB Form 350-19-2-E-R if Mortar or artillery is being fired:

- Training area(s) to be occupied:**
- Scenario of training to be conducted:
 - Sketch of area(s) to be occupied:
 - Risk Assessment:

Name/rank of requesting officer:
Mackey, Andre L./ LTC, AR/ Commanding 

Name/rank of Major Unit S3/Commander:
Cecalupo, Jon C./ MAJ, AR/ BDE S-3 

SECTION VI, FOR RANGE DIVISION USE

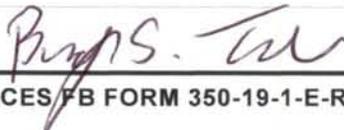
DATE:

TO: S-3, 316CAV
Fort Benning, GA

FROM: Range Division,
Directorate of Plans, Training,
Mobilization and Security
Fort Benning, GA 31905

- a. Roadblocks to be closed:
- b. Road(s) to be closed/road barrier locations:
- c. Remarks:
- d. This approval expires: 1 Dec 13

Chief, Range Division
Directorate of Plans, Training, Mobilization and Security





DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY MANEUVER CENTER OF EXCELLENCE
1 KARKER STREET
FORT BENNING, GEORGIA 31905-5000

REPLY TO
ATTENTION OF
ATZB-SO

01 December 2011

MEMORANDUM FOR Commander, 3/16 CAV, Attn: SFC J. Colegrove, Fort Benning, GA
31905

SUBJECT: 3-16th CAV M1A2 Master Gunner Training on Brooks Range Safety Review

1. References.

- a. 3-16th CAV M1A2 Master Gunner Training on Brooks Range, 30 November 2011.
- b. Army Regulation 385-10, The Army Safety Program, 24 August 2007,
- c. Army Regulation 385-63, Range Safety, 19 May 2003
- d. Department of the Army Pamphlet 40-501, Hearing Conservation Program, 10 December 1998
- e. Department of the Army Pamphlet 385-10, Army Safety Program, RAR 19 January 2010
- f. Department of the Army Pamphlet 385-30, Mishap Risk Management, RAR 01 February 2010
- g. Department of the Army Pamphlet 385-63, Range Safety, RAR 12 May 2009
- h. Field Manual 5-19, Composite Risk Management, August 2006

2. Document received on 01 December 2011.

3. Concur w/comment.

a. Concept paper (paragraph 3) must identify the use of two ground guides when moving any tracked vehicle in accordance with the submitted 3-16th CAV Master Gunner Range Training Composite Risk Management Sheet (CRMW)(DA Form 7566).

b. Concept paper identifies two periods, (AIMTEST and screening) when Master Gunner Cadre are not present in the vehicle while live fire operations are being conducted. This hazard and mitigation factors are not addressed in the concept paper or CRMW.

ATZB-SO

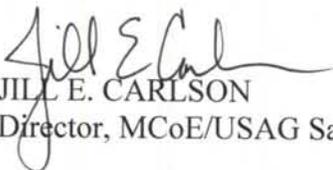
SUBJECT: 3-16th CAV M1A2 Master Gunner Training on Brooks Range Safety Review

- c. Concept paper address that the tanks will be refueled at the end of each training day. However, the CRMW does not address these hazards and the method (open or closed port) of refuel.
- d. CRMW, Block 11, pg 1. "Falling, either by tripping or off a vehicle", recommend that you add "Individual" to the block. Each Soldier is responsible for his own safety while mounting and dismounting a vehicle and has been briefed that three points of contact are required at all times.
- e. CRMW, Block 11, pg 2. "Soldier's limb crush by weapon", recommend that you add "Tank Commander" and "Individual" to the block. The Tank Commander is responsible for assure that all appendages are free and clear prior to moving the turret or gun.
- f. CRMW, Block 8, pg 3. "Soldier hit by vehicle", recommend that you add that all ground guides will wear a reflective vest or belt and all participants will administer the use of white lights, by ground guide and vehicles.
- g. CRMW, Block 8, pg 4. "Soldier crush by a vehicle", recommend that you add guidance to ground guides to offset their ground path to the outside of the vehicle to prevent being run over.
- h. CRMW, Block 11, pg 4. "Soldier crush by a vehicle", recommend that you add "Tank Commander" who will ensure that all ground guides are offset, to the outside of the vehicle, to prevent running over a Soldier.
- i. CRMW, Block 8, pg 4. "Heat", recommend that you review Policy Memorandum 350-6-2, dated 13 May 2009, for marking of Soldiers at risk.
- j. CRMW, Block 8, pg 7. "Cold", recommend that you review Policy Memorandum 350-6-2, dated 13 May 2009, for marking of Soldiers at risk.
- k. CRMW, Block 11, pg 7. "Round fired out of Range fan/Impact area", recommend that you add "Tank Commander" and Gunner". These two individuals are the last two to confirm the target and all parameters, before pulling the trigger and not the OIC, RSO and NCOIC.
- l. CRMW, Block 8, pg 8. "Loss of hearing or eyesight", recommend that you add and emphasis the use of double hearing protection while shooting gunnery. All impulse/impact noises above ≥ 165 dBP require double hearing protection.
- m. CRMW, Block 11, pg 9. "Soldier bitten or stung by snakes or insects", recommend that you add "Individual". Each soldier is responsible for his own safety and where his places his physical body.

ATZB-SO

SUBJECT: 3-16th CAV M1A2 Master Gunner Training on Brooks Range Safety Review

- n. CRMW, Block 8, pg 9. "Hatch closes on a Soldier", recommend mandated use of latch pins on all open hatches.
 - o. CRMW, Block 11, pg 9. "Hatch closes on a Soldier", recommend that the "Tank Commander" and "Individual" be held accountable for the individual and collective actions of the crew.
 - p. CRMW, Block 11, pg 9. "Vehicle strikes another vehicle", recommend that the "Tank Commander" and "Driver" be held accountable for actions of the vehicle, in addition to the OIC, RSO, and NCOIC.
 - q. Lesson Plan (ABG/APG 22224), Master Gunner Tank Range Training. Update all references to reflect the current location, platform, policies, while deleting legacy and inaccurate references.
 - r. M Troop 3-16 CAV Range SOP. Delete all references to "FB Form 46" and replace with "DA Form 7566". Delete all references to "USAIC Reg 210-4" and replace with "MCoE Reg 350-19".
 - s. M Troop 3-16 CAV Range SOP. Update all references to reflect the current location, platform, policies, procedures, while deleting legacy and inaccurate references (i.e. ammo transportation, Bn vs. Sqdn, etc.).
4. Point of contact is Mr. Michael W. Risher II, MCoE/Fort Benning Safety Office, Comm. (706) 545-8278, Govt. Cell. (706) 604-7249, michael.w.risher.civ@mail.mil


JILL E. CARLSON
Director, MCoE/USAG Safety

Brooks Range 3rd CAV BDE, 3rd SQD 16th CAV Abrams MGC (Log #05-01-11) Weapons/Ammo & Target List

Firing Positions	Weapons	Ammunition	Left Limit Mils, Grid Az	Right Limit Mils, Grid Az
Right Front Corner Baseline Screening: 1055 9929	Aimtest Inbore (STRYKER MGS) STRYKER MGS M68	M962 SLAPT, .50 cal APIT 105mm M490A1 TPT, M467A1 TPT	2005 2250	2095 2390
BP 1: 1073 9943 BP 2: 1068 9938	M1 Tank M256 STRYKER MGS M68 STRYKER MGS M68 Aimtest Inbore (M1 & STRYKER MGS)	120mm M831/M865 105mm M490A1 TPT 105mm M467A1 TPT M962 SLAPT, .50 cal APIT	2140 2140 2244 2140	2510 2510 2510 2510
Baseline Gunnery: 1064 9939 to 1055 9929	M1 Tank M256 STRYKER MGS M68 STRYKER MGS M68 Aimtest Inbore (M1 & STRYKER MGS)	120mm M831/M865 105mm M490A1 TPT 105mm M467A1 TPT (See Note Below) M962 SLAPT, .50 cal APIT	1965 1965 2250 2100	2470 2470 2470 2470
Baseline: 1064 9939 to 1055 9929 See Note Below	M1 Tank M256 STRYKER MGS M68	120mm Canister M1028 105mm Canister M 1040	2190 2190	2640 2640

Firing Positions	Weapons	Ammunition	Targets
Right Front Corner Baseline Screening: 1055 9929	Aimtest Inbore (STRYKER MGS) STRYKER MGS M68	M962 SLAPT, .50 cal APIT 105mm M490A1 TPT, M467A1 TPT	Panels IVO 211 (1200m) Panels IVO 204 (500m)
BP 1: 1073 9943 BP 2: 1068 9938	M1 Tank M256 STRYKER MGS M68 STRYKER MGS M68 Aimtest Inbore (M1 & STRYKER MGS)	120mm M831/M865 105mm M490A1 TPT 105mm M467A1 TPT M962 SLAPT, .50 cal APIT	206 - 208, 210 - 223, M1, M2. 206 - 208, 210 - 223, M1, M2. 206, 208, 212, 214 - 221, 223, Right 1/2 M1 & M2. 206 - 208, 210 - 223, M1, M2.
Baseline Gunnery: 1064 9939 to 1055 9929	M1 Tank M256 STRYKER MGS M68 STRYKER MGS M68 Aimtest Inbore (M1 & STRYKER MGS)	120mm M831/M865 105mm M490A1 TPT 105mm M467A1 TPT (See Note Below) M962 SLAPT, .50 cal APIT	206 - 223, M1, M2. 206 - 223, M1, M2. 204, 209, 212, 216 - 219. 206, 208, 209, 212 - 223, Right 1/2 M1, Right 3/4 M2.
Baseline Canister: 1064 9939 to 1055 9929 See Note Below	M1 Tank M256 STRYKER MGS M68	120mm Canister M1028 105mm Canister M 1040	201 - 205, Grp: 1, 2, 4, 5. 201 - 205, Grp: 1, 2, 4, 5.

NOTE! Baseline Gunnery: Only one weapon system will fire at a time. The MGS will only fire from the right front corner of Baseline. The 120mm will screen from the baseline at targets/panels 222 & 215 at 1500m. **Baseline Canister:** Primary Direction of Fire (PDF) for canister ammunition is 2370 mils (133 deg's) with 180 mils (10 deg's) left & right of the PDF. Only the targets from the list above that are to the immediate front of the weapon position on the baseline will be engaged with canister ammunition. All directions of fire are grid azimuth.



DEPARTMENT OF THE ARMY
3^D SQUADRON, 16TH CAVALRY REGIMENT
BLDG 5141, 13TH ARMORED REGIMENT ROAD
FORT BENNING, GA 31905

ATSZ-SBA-M

2 December 2011

MEMORANDUM FOR: CHIEF, RANGE OPERATIONS, FORT BENNING, GEORGIA, 31905

SUBJECT: Brooks Range, Abrams Master Gunner Range Training

1. REFERENCES:

- a. FM 3-20.21, Heavy Brigade Combat Team Gunnery Manual, 3 September 2009
- b. FM 3-20.13, Mobile Gun System (MGS) Gunnery
- c. AR 385-63, Range Safety, 19 May 2003
- d. DA PAM 385-63, Range Safety, 4 August 2009
- e. MCOE Regulation 350-19, Installation and Terrain Regulation, 23 July 2010
- f. Composite Risk Management, 21 August 2006

2. PURPOSE: IAW guidelines identified in DA PAM 385-63, Range Safety, this memorandum explains the scheme of maneuver, day and night at Brooks Range during M Troop 3/16 Cavalry Gunnery Training

3. SCHEME OF MANEUVER:

- a. Day 1 (Modified GT V (M1) / Modified GT VI (MGS) (Sub-Caliber)). This day includes boresighting the tanks, installation of the 120mm Advanced Inbore Marksmanship Training Enhancement System for Tanks (AIMTEST) into one tank and 1 MGS and conduct of a modified GT V (tank) and modified GT VI (MGS) utilizing .50 Caliber SLAP-T ammunition fired from a single stationary tank or MGS with the AIMTEST.

- (1) **Phase 1 (Range set up):** The day will begin with non tactical movement of the tanks from the HETT drop point to the range. Tanks will be ground guided front and rear and will be staged 5 meters apart at the front center of the baseline with a maximum of 5 tanks and 2 MGS on the baseline at one time. Once set all gun tubes will be elevated and oriented down range, with proper flags displayed.
- (2) **Phase 2 (Safety brief day 1):** Upon arrival of students all personnel on the range will receive a safety brief from the student RSO. Immediately following the safety brief the student Master Gunner on the range will give a Conduct of the Range brief. A cadre member will be present to ensure the safety brief is complete IAW MCoE reg 350-19.
- (3) **Phase 3 (Boresighting tank/MGS)** Student crews will conduct boresighting procedures IAW FM 3-20.21 Appendix A for tanks and IAW FM 3-20.13 for MGS. All tanks and MGS' are equipped with eye safe lasers and boresighting should take no more than one hour.
- (4) **Phase 4 (AIMTEST tank):** Students will install the AIMTEST device into 1 tank, under the supervision of the Training Devices instructor. Once installation is complete the tank will be uploaded with enough .50 Cal SLAP-T ammunition to zero the AIMTEST and conduct the modified GT V for approximately 6 crews. Ammunition will be handled and stored on tanks IAW -10 procedures. One 3 man student crew will remain on the tank and the baseline will be cleared of all additional personnel. The crew will zero the AIMTEST from the stationary tank on the baseline, utilizing target # 211/panels located at 1200m (see target list) and taking all commands from the tower.
- (5) **Phase 5 (Modified GT V tank):** Once the AIMTEST is zeroed, the same crew will conduct a modified GT V, utilizing engagement scenarios developed by the class during the Plan & Conduct Tank Gunnery Ranges portion of their training. The students will have the flexibility to fire either from the baseline, BP1 or BP2 and tailor the engagements IAW FM 3-20.21 and based on the following restrictions:

1. Firing from Baseline to target #'s (see target list).
2. Firing from BP1 or BP2 to target #'s (see target list).

Note: All crews will fire from the same position and the tank will not move during this phase of training (i.e. if the class develops target scenarios to be fired from the base line, all engagements and all crews will fire from the baseline)

After each crew has completed their engagements the RSO will clear the vehicle weapons systems and the next student crew will man the tank. The crews will continue to rotate through until complete. At no time during this phase will more than one vehicle be firing at a time. During all live fire operations the proper flags will be displayed on the tank, gun tubes will remain oriented within the range fans, personnel will remain in the proper uniform and the firing vehicle will remain stationary throughout the entire engagement and take all commands and prompts from the tower. Master Gunner Cadre in the tower will visually ensure that the firing vehicles weapon systems remain oriented downrange and within the L/R limits of fire at all times.

- (6) **Phase 6 (AIMTEST MGS):** MGS students will install the 105mm AIMTEST device into 1 MGS, under the supervision of the Training Devices instructor. Once installation is complete the MGS will be uploaded with enough .50 Cal SLAP-T ammunition to zero the AIMTEST and conduct a modified GT VI for approximately 4 crews. Ammunition will be handled and stored on tanks IAW -10 procedures. One 2 man student crew will remain on the MGS and the baseline will be cleared of all additional personnel. The crew will zero the AIMTEST from the stationary MGS on the baseline, utilizing target # 211/panels located at 1200m and taking all commands from the tower.
- (7) **Phase 7 (Modified GT VI MGS):** Once the 105mm AIMTEST is zeroed, the same crew will conduct a modified GT VI, utilizing engagement scenarios developed by the class during the Plan & Conduct MGS Gunnery Ranges portion of their training. The students will have the flexibility to fire either from the baseline, BP1 or BP2 and tailor the engagements IAW FM 3-20.13 and based on the following restrictions:

1. Firing from Baseline to target #'s (see target list).
2. Firing from BP1 or BP2 to target #'s (see target list).

Note: All crews will fire from the same position and the MGS will not move during this phase of training (i.e. if the class develops target scenarios to be fired from the base line, all engagements and all crews will fire from the baseline)

After each crew has completed their engagements the RSO will clear the vehicle weapons systems and the next student crew will man the MGS. The crews will continue to rotate through until complete. At no time during this phase will more than one vehicle be firing at a time. During all live fire operations the proper flags will be displayed on the MGS, gun tubes will remain oriented within the range fans, personnel will remain in the proper uniform and the firing vehicle will remain stationary throughout the entire engagement and take all commands and prompts from the tower. Master Gunner Cadre in the tower will visually ensure that the firing vehicles weapon systems remain oriented downrange and within the L/R limits of fire at all times.

Note: In the event the AIMTEST is unable to function and crews cannot conduct a modified GT VI utilizing sub caliber ammunition, Phase 13 (see day 2) will be conducted during this phase.

- (8) **Phase 8 (Refuel & Refit day 1):** Upon completion of all training vehicles will be refueled at the baseline (Tailgate) and will remain stationary for the evening. Non essential personnel will return to the rear and the range will go into guard status with the guard force stationing personnel at the ammo pad and baseline throughout the night. There will be no training conducted or movement of vehicles during night time.

- b. Day 2 (Screening and Advanced Conduct of Fire (ACOF) gunnery M1/MGS). This day consists of boresighting, screening tanks and MGS and an ACOF shoot to demonstrate to students the capabilities and functions of the fire control system. Tanks and MGS will be pre-staged at the

baseline from the previous day and all gun tubes will be elevated and oriented downrange with the proper flags displayed.

- (9) **Phase 9 (Safety brief day 2):** Upon arrival of students all personnel on the range will receive a safety brief from the student RSO. Immediately following the safety brief the student Master Gunner on the range will give a Conduct of the Range brief. A cadre member will be present to ensure the safety brief is complete IAW MCoE reg 350-19.
- (10) **Phase 10 (Boresighting day 2):** Student crews will conduct boresighting procedures IAW FM 3-20.21 Appendix A for tanks and IAW FM 3-20.13 for MGS. On this day 1 tank will be boresighted using the alternate string method. All tanks and MGS' are equipped with eye safe lasers and boresighting should take no more than one hour.
- (11) **Phase 11 (Tank Screening):** Once boresighting is complete tanks will be uploaded with 4 rounds Sabot (M865) and 4 HEAT (M831) per 3 man crew. Ammunition will be handled and stored on tanks IAW -10 procedures. One 3 man student crew will remain on the first tank and the baseline will be cleared of all additional personnel. The first crew will conduct a Live Fire Accuracy Screening Test (LFAST) from the baseline utilizing screening panels located IVO target #'s 222 & 215 (1500m). Once the first crew is complete the RSO will clear the vehicles weapon systems and the next crew will move to their vehicle and prepare to LFAST. The crews will continue to rotate through until complete. The last to LFAST will be the tank that boresighted using the alternate string method. This tank will conduct a Marine Corps standard 500m zero firing from the center of the baseline to panels located IVO target # 204 (500m). At no time during this phase will more than one vehicle be firing at a time. During all live fire operations the proper flags will be displayed on the tank, gun tubes will remain oriented within the range fans, personnel will remain in the proper uniform and the firing vehicle will remain stationary throughout the entire engagement and take all commands and prompts from the tower. Master Gunner Cadre in the tower will visually ensure that the firing vehicles weapon systems remain oriented downrange and within the L/R limits of fire at all times.
- (12) **Phase 12 (ACOF Shoot):** During this phase Tank Master Gunner students will be located at a central observation point away from the baseline with the ACOF instructor who will direct a crew of Master Gunner instructors, in a stationary tank located at the center of the baseline, to conduct a series of firings, while the students predict and observe the impact points of the rounds. The firing tank will utilize target #'s (see target list).
- (13) **Phase 13 (MGS 500m zero and Familiarization Fire):** During this phase the MGS' will be ground guided from the baseline to the ammunition point and uploaded with enough Sabot (M490A1) and Heat (M467A1) to zero 4 crews and conduct a 6 round familiarization fire per student. The MGS' will then be ground guided back to the **right front corner** of the baseline where they will remain stationary for the remainder of the exercise. Under the direction of the tower both MGS' will conduct a 500m zero utilizing panels IVO target # 204 (500m). Once both vehicles are complete with zeroing, each student will have the opportunity to fire 3 rounds Sabot and 3 rounds Heat for familiarization (see target list). After each iteration the RSO will clear the firing vehicles weapons systems and the crews will rotate out. At no time during this phase will more than one vehicle be firing at a time. During all live fire operations the proper flags will be displayed on the tank, gun tubes will remain oriented within the range fans, personnel will remain in the proper uniform and the firing vehicle will remain stationary throughout the entire engagement and take all commands and prompts from the tower. Master Gunner Cadre in the tower will visually ensure that the firing vehicles weapon systems remain oriented downrange and within the L/R limits of fire at all times.

Note: This phase may be conducted on day 1 in place of Phase 7.

- (14) **Phase 14 (Canister shoot):** During this phase 2 ea. 120mm canister rounds (M1028) and 2 ea. 105mm canister rounds (M1040) will be fired by a crew of cadre, from a stationary tank and stationary MGS located at the center of the baseline. Both platforms will be engaging troop target groups utilizing target groups: (see target list and sketch for targets and restricted area). At no time during this phase will more than one vehicle be firing at a time. During all live fire operations the proper flags will be displayed on the tank, gun tubes will remain oriented within the range fans, personnel will remain in the proper

uniform and the firing vehicle will remain stationary throughout the entire engagement and take all commands and prompts from the tower. Master Gunner Cadre in the tower will visually ensure that the firing vehicles weapon systems remain oriented downrange and within the L/R limits of fire at all times.

(15) **Phase 15 (Refuel, re-fit, pre-staging and pre-clearance):** Upon completion of live fire operations all weapons and tanks will be cleared by the RSO and Master Gunner. Tanks will be refueled at the baseline (Tailgate) and then ground guided to a staging area, near the ammo pad, for HETT operations the following day. Personnel on the range will begin pre-range clearance procedures. Once all vehicles are staged a guard force will be posted for the remainder of the evening and the range will go into guard status.

c. Day 3 (HETT & Range Clearance). OIC and range support unit OIC will oversee HETT operations to ensure all vehicles are cleared from the range; simultaneously range clearing procedures will be finalized so the unit can clear the range once all vehicles are removed.

4. Safety:

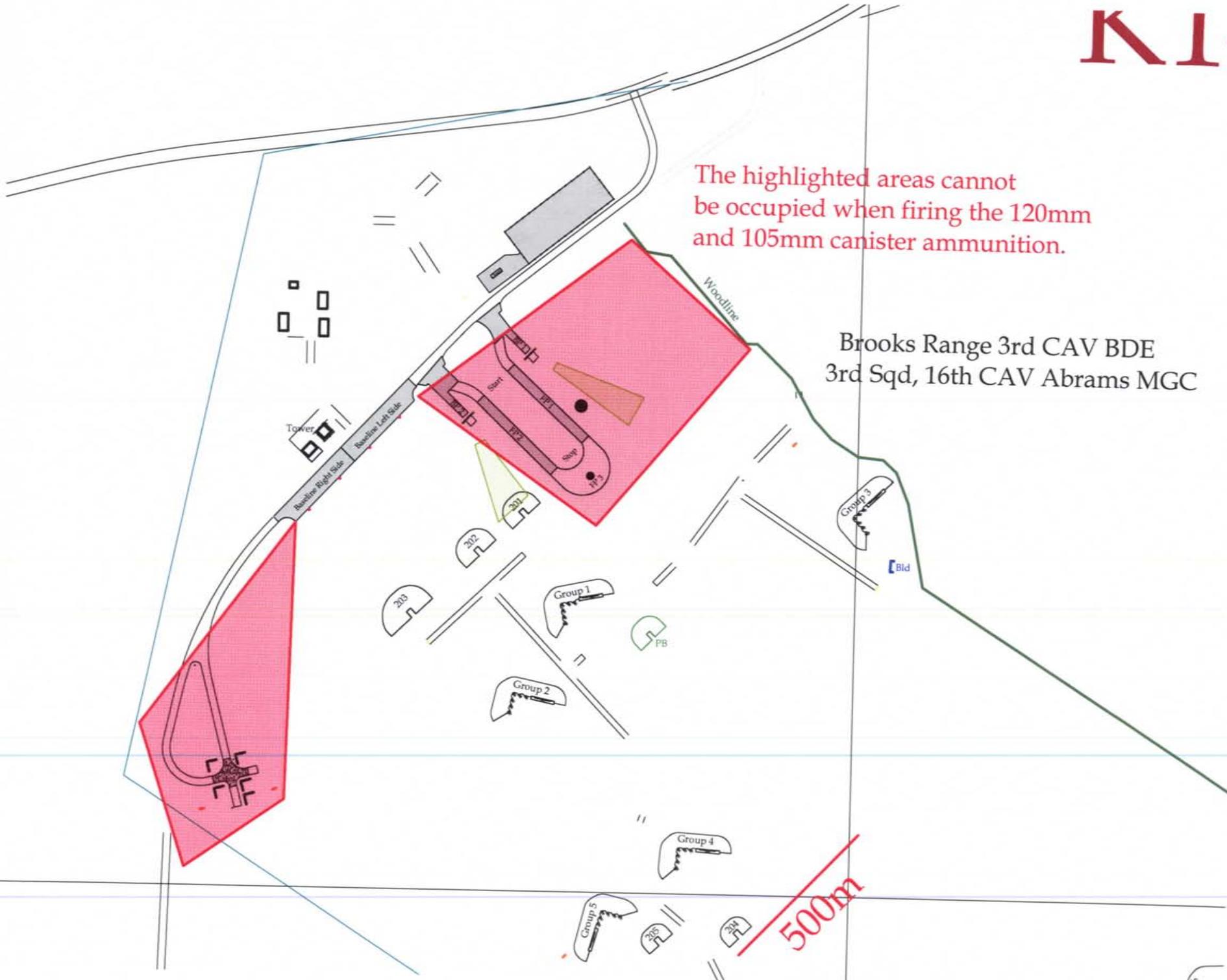
- a. Unit will use the standard 9 line MEDEVAC in case of illness or injury. Call 911 and determine what type of evacuation is the most appropriate for the injury. MEDEVAC will be IAW MCoE Regulation 350-19 and USAIC 40-2. Landing zone for MEDEVAC aircraft will be established prior to use and will be marked appropriately. Using units higher HQ and Range Control will be notified in case of an event.
- b. There will be no de-linking or re-linking of any ammunition. Any ammunition that has been de- or re-linked is considered nonstandard and is prohibited from the range.
- c. Weapons/Ammunition malfunction reports: When a malfunction is experienced the OIC or RSO will suspend all firing, immediately notify Range Control, retain the weapon and all components and ammunition involved in place. In the event of injury or a round out of impact, an investigation is required and will be conducted by DOL.
- d. In the event of an injury or incident the RSO will immediately call a cease fire until the situation is resolved. The RSO will render reports to Range Control and take action as directed by Range Control. In the event of an injury that could result in the loss of life, limb or eyesight he/she will call E911 and request air/ground evacuation. The following information will be furnished by the OIC/RSO to Range Control:
 - (1) Designation of unit
 - (2) Range by location
 - (3) Type of weapon involved
 - (4) Type of ammunition involved
 - (5) Brief summary of incident
 - (6) Personnel injuries and extent
 - (7) Full name, SSN, rank and unit of injured personnel
 - (8) Extent of property damage
 - (9) Intentions regarding an AR 15-6 investigation
- e. Unit will maintain continuous contact with Range Control at all times. If communications are lost the unit will go into a self induced check fires until communications are restored.
- f. Cease fire will be briefed in the safety briefing and the hand and arm signals will be identified along with other SOP procedures. Tank cadre members will monitor the internal frequency and the cease fire will be sent out over the radio.
- g. Hearing protection will be worn at all times once the range is in a hot status. Additional hearing protection will be provided for personnel missing their own and visitors. Double hearing protection will be worn by firing tank crews.

- h. All weapon firers will be monitored closely on the ground and on tanks to ensure weapons and ammunition stay inside the range fans. Tank firers will be monitored closely from the tower to ensure weapons remain up and down range, all safety precautions are taken and crews take all commands from the tower.
 - i. Laser warning signs will be in place prior to opening the range. Range Safety Briefing will include hazards using lasers and NVDs for both day and night firing.
5. POC for this memorandum is the Armor Master Gunner Gunnery Team Chief
jeffrey.g.colegrove.mil@mail.mil; 706-626-7909.

for MAS Dan Ford
ANDRE L. MACKEY
LTC, AR
Commanding

The highlighted areas cannot be occupied when firing the 120mm and 105mm canister ammunition.

Brooks Range 3rd CAV BDE
3rd Sqd, 16th CAV Abrams MGC



Lorraine Rd

Mortar Pool

Ammo Point

Tower
Bleachers

Baseline

BP1
FP1
FP2
FP3

Baseline Right Side
Baseline Left Side

303

302

Group 1

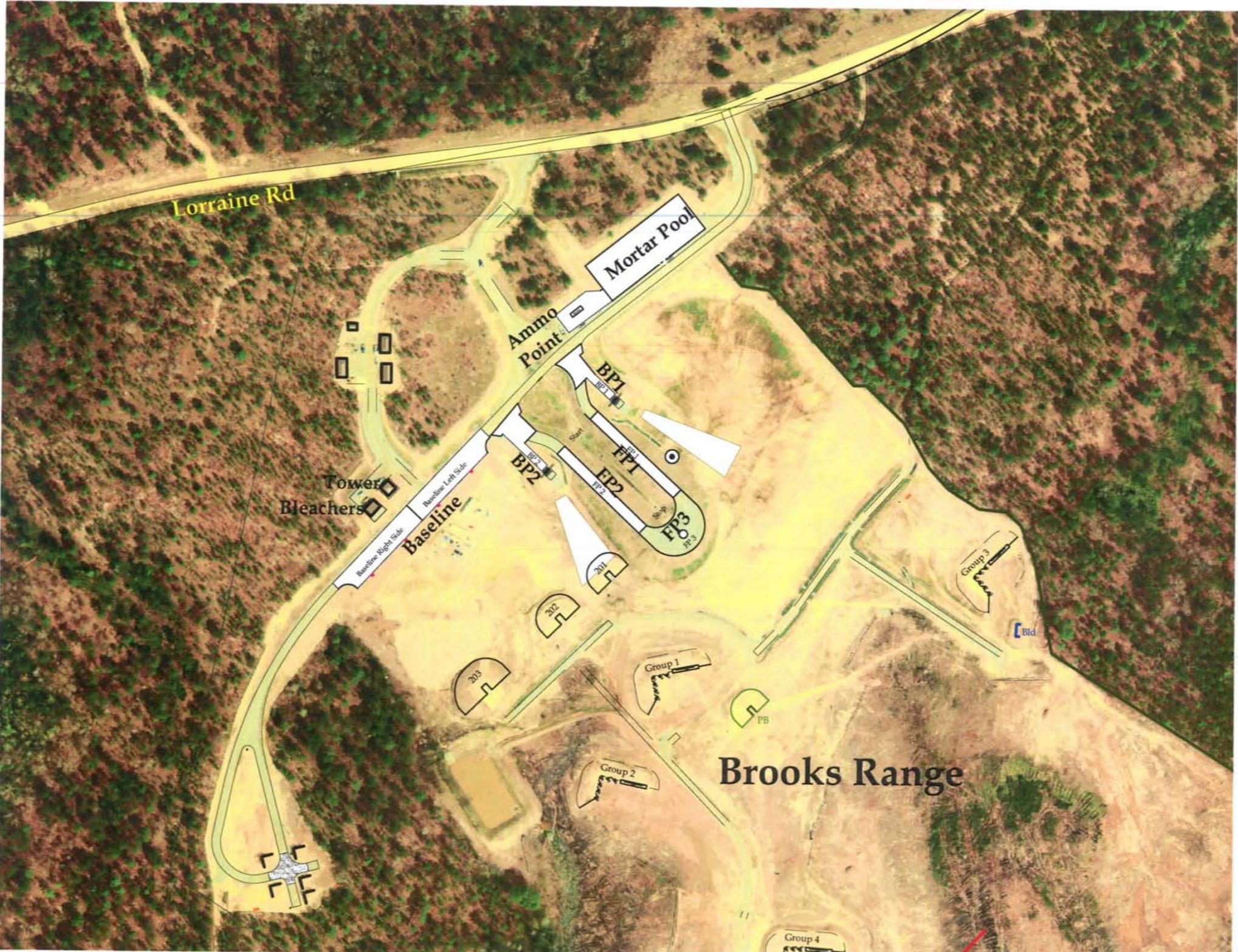
Group 2

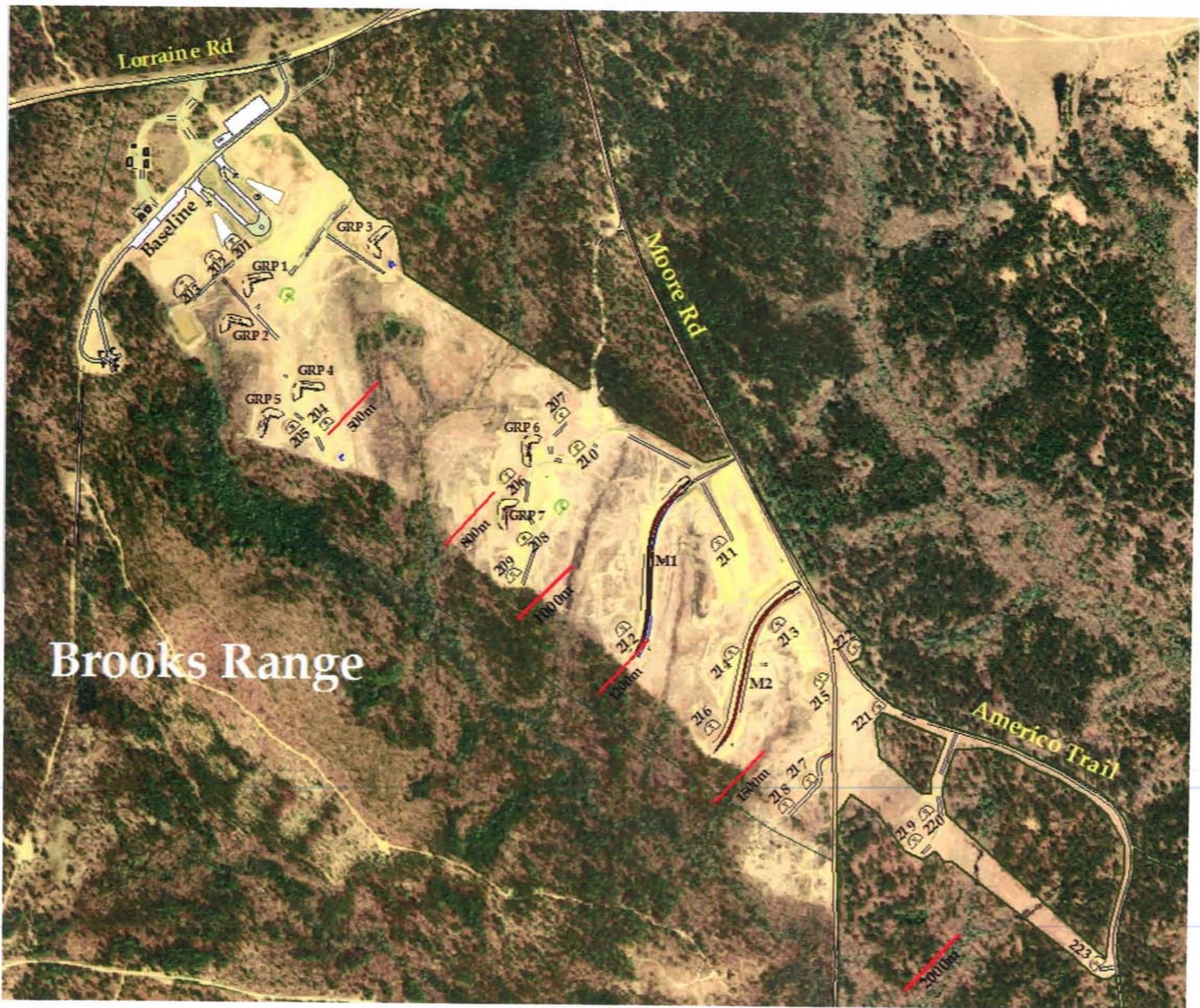
Group 3

Bld

Brooks Range

Group 4





Lorraine Rd

Baseline

GRP 3

GRP 1

GRP 2

GRP 4

GRP 5

GRP 6

GRP 7

400m

1100m

Moore Rd

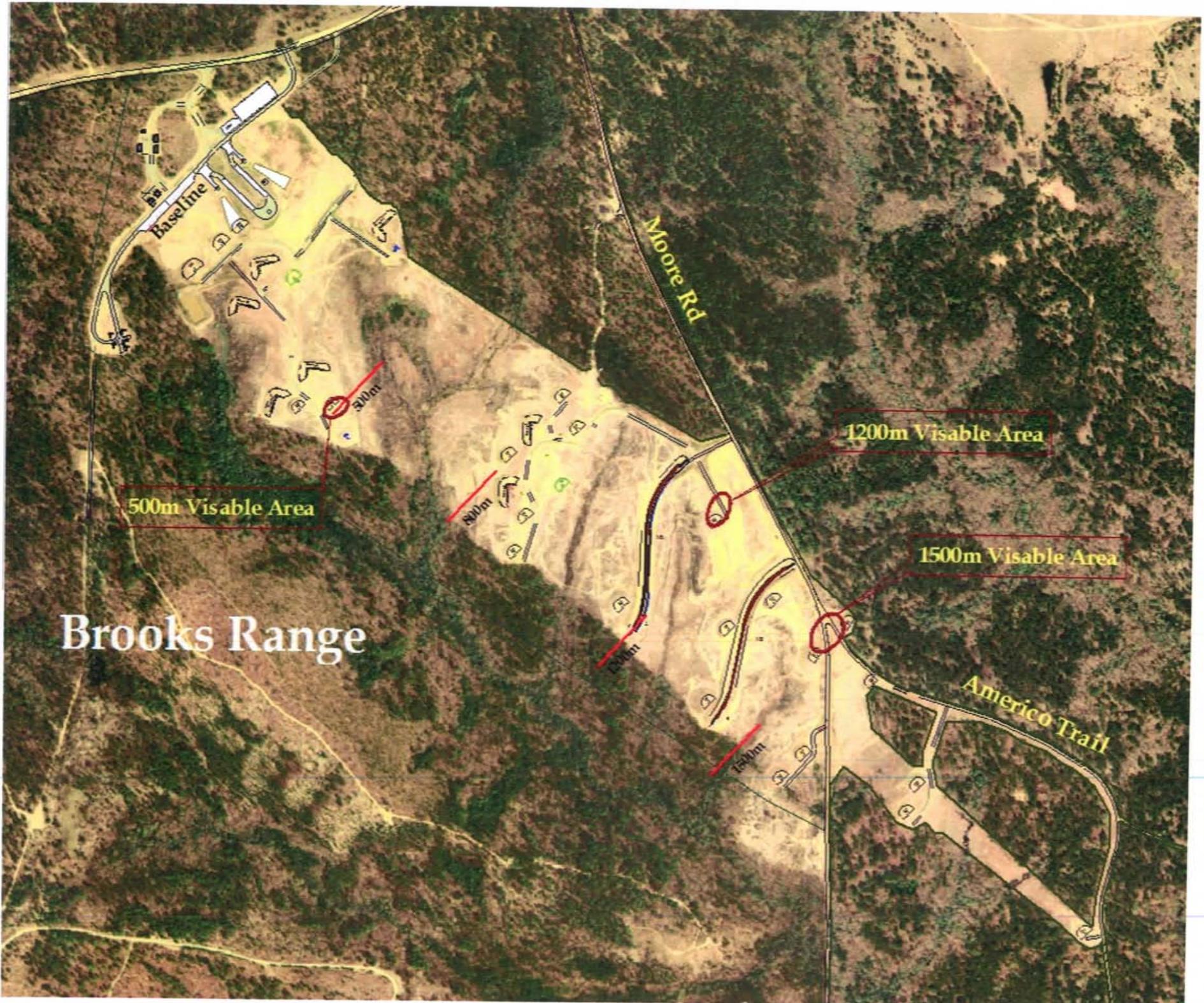
MI

M2

Americo Trail

Brooks Range

2000m



Baseline

Moore Rd

1200m Visible Area

500m Visible Area

1500m Visible Area

Brooks Range

Americo Trail

300m

800m

1000m

1000m



Brooks Range

Brooks Range 3rd CAV BDE, 3rd SQD 16th CAV Abrams MGC (Log #05-01-11) Roadblocks

#	GRID	LOCATION	TYPE
K-2	163 883	Across Box Springs Rd 125m N. of its intersection with Buena Vista Rd.	Gate
K-3	153 894	Across entrance road leading to Concord OP 250m N. of its intersection with Buena Vista Rd.	Gate
K-4	144 901	Across entrance road leading to Hartell Bunkers 50m N. its of intersection with Buena Vista Rd.	Gate
K-5	117 920	Across Shamanski Rd 25m N. of its intersection with Buena Vista Rd.	Gate
K-7	095 935	Across Audernarde Trail 10m E of its intersection with Lorraine Road.	Gate
K-8	099 947	Across Bulls Eye Rd 50m E of its intersection with Lorraine Road.	Gate
K9	105 927	Across Audernarde Trail 30m W of Moore Rd, 575m N of Buena Vista Rd & Moore Rd intersection.	Gate
K-10	118 920	Across Buena Vista Rd at K-5 road block. (Road guard location).	Gate
K-11	103 922	Across Moore Rd 50m N. of its intersection with Buena Vista Rd. Entrance to Terry Demo Rng. (Road guard location)	Gate
K-12	104 988	South of tower on Brooks Range	Gate
K-13	109 937	Across Moore Rd 10m N. of its intersection with Bullseye Rd.	Gate
K-14	113 998	Across Moore Rd 10m S. of its intersection with Lorraine Rd.	Gate
K-15	114 999	Across course road leading out of Ruth Range 50m E. of its intersection with Moore Rd.	Gate
K-16	190 003	Across Rinehart Rd 100m W. of its intersection with Box Springs Rd.	Gate
K-17	116 013	Across unnamed trail 15m E. of Moore Rd and 130m N. of Ruth Range tower.	Cable
K-18	122 033	Across Moore Rd. at the northern reservation boundary. Permanently closed.	Berm
K-19	121 023	Across unnamed trail 1400m N. of Ruth Range and 150m E of Moore Rd.	Cable
K-20	141 026	Across unnamed trail off northern boundary trail along railroad tracks 400m E. of Cox Creek ford.	Cable
K-24	219 968	Across Turrentine Rd at reservation boundary. Permanently closed.	Barrier/ Berm
K-25	180 923	Across unnamed trail leading to Shiloh Trail 10m W. of Box Springs Rd. Permanently closed.	Cable
K-26	201 968	Across Turrentine Rd 20m W. of its intersection with Boundary Rd.	Gate

#	GRID	LOCATION	TYPE
K-28	191 885	Across Whitson Rd 15m W. of its intersection with Cactus Rd.	Cable
K-30	193 916	Across Cactus Rd 150m N. of Pine Knot Creek. Permanently closed.	Gate
K-32	192 915	Across Shamanski Rd 35m W. of its intersection with Cactus Rd.	Gate
K-34	134 932	Across Buzancy Trail at its intersection with Rinehart Rd. Permanently closed.	Berm
K-36	162 882	Across Buena Vista Rd 50m W. of its intersection with Box Springs Rd. (Road guard location).	Gate
K-38	201 941	Across unnamed trail 35m W. of its intersection with the east boundary road. Permanently closed.	Cable
K-39	202 949	Across unnamed trail 15m W. of its intersection with the east boundary road. Permanently closed.	Cable
K-40	174 908	Across Box Springs Rd 30m S. of Pine Knot Creek.	Gate
K-41	192 944	Across Kennesaw Trail 30m W. of its intersection with Box Springs Rd.	Cable
K-42	194 956	Across Box Springs Rd 1200m N. of its intersection with Cactus Rd.	Gate
K-43	197 984	Across Box Springs Rd. approx 450m N. of its intersection with the Hastings Range baseline road.	Cable
K-44	113 955	Across Moore Rd on the N. side of Carmouche Range maneuver box.	Gate
K-45	116 964	Across Moore Rd 30m S. of its intersection with the old Ware Range course road.	Gate
K-46	119 979	Across Moore Rd 725m S. of its intersection with Americo Trail.	Gate

O-9	101 962	600m N of Carmouche Rng on right side of Lorraine Rd	Gate
O-18	093 979	800m N of Ware Rng Entrance on right side of Lorraine Rd	Gate

COMPOSITE RISK MANAGEMENT WORKSHEET

For use of this form, see FM 5-19; the proponent is TRADOC

1. MSN/TASK: Master Gunner Course MIA1/A2 Master Gunner Range Training (ST1)	2a. DTG BEGIN 010800DEC2011	2b. DTG END 301700NOV2012	3. DATE PREPARED (YYYYMMDD) 20111130
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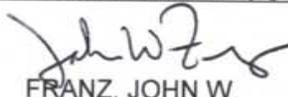
4. PREPARED BY:	
a. LAST NAME COLEGROVE,	b. RANK SFC
c. POSITION Gunnery Team Chief	

5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
Conduct MIA1 Gunnery training.	1. Soldier struck by lightning	High	NCOIC OR SAFETY OFFICER WILL DO THE FOLLOWING: 1. Suspend all training during electrical storms or IAW guidance from Range Control. 2. Brief students on electrical storm plan for each range and point out location for evacuation and accountability. 3. Ensure instructors understand their individual responsibilities in case of an electrical storm. INSTRUCTORS WILL DO THE FOLLOWING: 1. Ensure that students ground their individual equipment and don their wet-weather gear. 2. Ensure that all students move IAW the electrical storm plan. Take accountability of all students once there.	Moderate	Educate students on Dangers Provide and enforce use of protection Identify safe area for when conditions warrant Execute Electrical Storm Plan SOP	OIC / RSO / NCOIC / INSTRUCTOR SFC COLEGROVE/ SFC AUGUST / SSG DENNIS	
	2. Falling, either by tripping or off a vehicle	High	RANGE NCOIC OR RANGE SAFETY OFFICER WILL DO THE FOLLOWING: 1. Brief students on tripping hazards, i.e. rocks, branches, etc. 2. Brief students to maintain 3 points of contact while on the vehicle. INSTRUCTORS WILL: 1. Enforce students maintain 3 points of contact while on the vehicle.	Moderate	Additional instructions and supervision	OIC / RSO / NCOIC / INSTRUCTOR SFC COLEGROVE/ SFC AUGUST / SSG DENNIS	

Additional space for entries in Items 5 through 11 is provided on page 2.

13. OVERALL RISK LEVEL AFTER CONTROLS ARE IMPLEMENTED (Check One)

LOW
 MODERATE
 HIGH
 EXTREMELY HIGH


 FRANZ, JOHN W.
 1SG, USA
 Commandant


 MACKEY, ANDRE L.
 LTC, AR
 Commanding

ITEMS 5 THROUGH 12 CONTINUED:

5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
	3. Accidental discharge, weapon malfunction and misfires for the AIMTEST and M256 Cannon	High	<p>OIC / RSO WILL DO THE FOLLOWING:</p> <p>1. Conduct a Range Safety Briefing</p> <p>a. Safety briefing will address possibility of accidental discharge, weapon malfunction and misfires for the AIMTEST and M256 Cannon</p> <p>RANGE OIC WILL DO THE FOLLOWING:</p> <p>1. Designate a clearing NCO who will ensure that AIMTEST and M256 Cannon are cleared prior to leaving the course.</p> <p>RSO / CLEARING NCO WILL DO THE FOLLOWING:</p> <p>OIC / INSTRUCTORS WILL DO THE FOLLOWING:</p> <p>1. Ensure all personnel are weapon system qualified (GST, GT1, and AGTS).</p> <p>2. Ensure proper maintenance and services of weapons are conducted. Instructors will supervise signing of pre-fire checklist.</p> <p>3. Ensure weapons are oriented downrange at all times.</p> <p>OIC / RSO / CLS / INSTRUCTORS WILL DO THE FOLLOWING:</p> <p>1. Be on site at all times during firing.</p>	Moderate	<p>Additional instructions and supervision</p> <p>Limit on weapons system orientation to reduce effects</p> <p>Educate students and firing crews on proper actions to take to prevent accidental discharge, malfunctions and misfire procedures for the AIMTEST and M256 Cannon</p>	<p>OIC / RSO / NCOIC / INSTRUCTOR</p> <p>SFC COLEGROVE/ SFC AUGUST / SSG DENNIS</p>	
	4. Soldier's limb crushed by weapon	High	<p>OIC / RSO WILL DO THE FOLLOWING:</p> <p>1. Conduct a Range Safety Briefing</p> <p>a. RSO will identify the hazard during the safety briefing.</p> <p>2. Turret drive will be off when placing the weapon on manual safe.</p> <p>3. Turret drive will be off prior to clearing the weapon.</p>	Moderate	<p>Additional Instruction and supervision</p>	<p>OIC / RSO / NCOIC / INSTRUCTOR</p> <p>SFC COLEGROVE/ SFC AUGUST / SSG DENNIS</p>	

ITEMS 5 THROUGH 12 CONTINUED:							
5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
	5. Soldier hit by a vehicle	High	<p>INSTRUCTORS WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> 1. Ensure students adhere to 2, 3 and 4 above. 2. Ensure travel lock is on when exiting vehicle at all times. <p>OIC / RSO WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> 1. Conduct a Range Safety Briefing a. RSO will identify the hazard during the safety briefing. He will point out areas where ground guides are required. 2. Soldiers will adhere to the course speed limits at all times. Instructors will ensure this occurs. 3. Front and rear ground guides will be used in designated areas of the range. 4. TC's will ensure correct following distances are maintained. 5. Ground guides during darkness will use chemlights or flashlights to guide vehicles. Ground guides will remain appropriate distances from vehicles, day or night. 	Moderate	Additional Instruction and supervision. Limit personnel movement in the vicinity of the vehicles. Increase control of vehicle movement.	<p>OIC / RSO / NCOIC / INSTRUCTOR</p> <p>SFC COLEGROVE/ SFC AUGUST / SSG DENNIS</p>	
	6. Tank rolls over	High	<p>OIC / RSO WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> 1. Conduct a Range Safety Briefing a. Range OIC will address the hazard in his safety briefing and will reiterate the rollover drill. 2. Tanks will be driven only on flat range surfaces. These must be cleared by RSO 3. All students will have driven on the range /drive site. 4. All students will have rehearsed rollover drills during GT2. 5. Range OIC and VCEs will ensure students (especially drivers) are familiar with the course road. 6. Range OIC or RSO will recon the entire course road to ensure suitability and identify hazards. 7. VCE's will have communication with the crew at all times. 	Moderate	Additional Instruction and supervision. Utilize permanent roads and tank trails. Limit speeds. Route recon to verify roads condition.	<p>OIC / RSO / NCOIC / INSTRUCTOR</p> <p>SFC COLEGROVE/ SFC AUGUST / SSG DENNIS</p>	

ITEMS 5 THROUGH 12 CONTINUED:

5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
			<p>Heat Category 4 WBGT Index: 88.0-89.9 F "Easy work: 1 qt/hr, no limit." "Moderate work: 1.25 qt/hr, 30 / 30." "Hard work: 1.25 qt/hr, 20 / 40." Heat Category 5 WBGT Index: 90 F and above. "Easy work: 1 qt/hr, no limit." "Moderate work: 1.25 qt/hr, 30 / 30" "Hard work: 1.25 qt/hr, 15 / 45."</p> <p>4. Heat casualties will be treated as needed by the medics on site and may be evacuated via evac vehicle or air MEDEVAC. During Heat Cat 3 and above all firing vehicles hatches (except the driver) will be in the up position .</p> <p>5. VCE's and all crew members will have 2 quarts of water (2-1qrts, 1- 2 qt, or camelback) with them while down range. Before the crew begins the course, the VCE will maximize his time in the bleachers or other shade. VCE's will refill both canteens during AAR periods. VCE's will eat 3 meals each day.</p> <p>6. Students in the turret will have water accessible to them at all times while they are waiting to go downrange. As the crewmembers wait the driver's hatch will be open. Each crewmember will have a minimum of two quarts of water on hand at all times. In addition to two quarts of water, each crew will have a minimum of one five gallon jug of water on the back of each firing vehicle. The NCOIC of the range will be responsible for verifying that the crews are adhering to the guidelines as stated above.</p>				

ITEMS 5 THROUGH 12 CONTINUED:

5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
			<p>When a vehicle is down range the TC will ensure all members on the vehicle are consuming water at all times and report any heat situations to the tower. Students and crewmembers waiting to enter the vehicles will stay in the shade and drink water IAW the above guidelines. The water buffalo will remain positioned next to the range control shed at all times. In the event that a water buffalo is not present, there will be additional water stored at the control tower located to the left of the AAR shed.</p> <p>7. There will be a minimum of 20 ice sheets on the range during the summer months. The ice sheets will not be stored directly in ice or ice water in the coolers. The ice sheets will be put individually into 1-gallon zip lock bags to prevent freezing and ice attaching to the ice sheets.</p> <p>8. If soldier appears to be suffering effects of heat injury, they will immediately be treated with ice sheets. If treated with ice sheets, soldier will be evacuated to Martin Army Hospital for evaluation by a medical professional. The temperature will be taken using a thermo-scan ear thermometer and will be taken three times to get an average.</p> <p>9. 5 ice sheets will be used per heat casualty and anyone treated with ice sheets will be evacuated. (IAW USAIC policy)</p> <p>10. Tank drivers operating vehicles in heat cat III or higher will not conduct back to back exercises down range. Range Cadre/RSO will ensure that drivers have sufficient breaks.</p> <p>11. If a soldier appears to be succumbing to the effects of hot weather/exertion, soldier will be placed in air conditioned vehicle or tower and monitored for 1 hour.</p>				

ITEMS 5 THROUGH 12 CONTINUED:

5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
	9. Cold	High	<p>1. NCOIC will monitor the cold weather conditions and keep OIC and Range MG informed of cold weather situations. Previous cold weather injuries will be marked with red tape or engineer tape on LBE suspenders.</p> <p>2. Cold weather casualties will be treated as needed by the medic on site and may be evacuated via evac vehicle or air MEDEVAC. There will be a warming tent setup, the tent will be used for rotating personnel in and out to keep warm IAW the weather report. ADDITIONAL INFORMATION FOR COLD WEATHER IS ATTACHED</p>	Moderate	Monitor Conditions, Educate students on Dangers	OIC / RSO / NCOIC / INSTRUCTOR SFC COLEGROVE/ SFC AUGUST / SSG DENNIS	
	10. Round fired out of Range fan/Impact area	High	<p>1. A crew packet including GST/GT1 score sheets for all crew members, AGTS printout, and a crew worksheet signed by the crew's company commander will be submitted to the OIC and MG running the range, prior to any crew conducting dry or live fire training.</p> <p>2. The Ammo NCO will collect a prefire checklist and physically verify the presence of a crew checklist attached to the ammo door inside the vehicle turret, prior to issuing ammo for a table.</p> <p>3. Each Table will be proofed from a Tank, in step with the table script, to assure targetry presented is correct and safe, as well as within the range fans.</p> <p>4. Firing vehicle will be clearly marked with a chemilight or flashlight on each side of the turret, with a light of a different color attached to the middle rear of the turret.</p>	Moderate	<p>OIC will collect crew packets during initial range brief on day one of range</p> <p>Ammo NCO will be briefed on responsibility to collect prefire checklist and verify presence of crew checks</p> <p>Prior to execution of table, MG will conduct dry run in a Tank with the script from the tower</p> <p>Standard briefed during safety brief by RSO. Beach master will not advance a vehicle not in compliance.</p> <p>Tower will not begin live fire table during night or limited vis without chase vehicle in place and on the firing freq</p>	OIC / RSO / NCOIC / INSTRUCTOR SFC COLEGROVE/ SFC AUGUST / SSG DENNIS	

ITEMS 5 THROUGH 12 CONTINUED:

5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
	11. Students conducting range operations	Moderate	<p>5. At night or during times of limited visibility, each firing vehicle will be followed by a chase vehicle to assure the firing vehicle maintains proper turret orientation during conduct of the table. The chase vehicle CDR will be a SSG or above with Tank Commander Experience. The driver of the chase vehicle will have night vision capability. The chase vehicle will have FM communication with both the tower and firing vehicle</p> <p>THE OIC/ RSO WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> 1. Read and review risk assessment. Update the risk assessment daily with consultation between cadre and chain of command. 2. Ensure medevac vehicle with medics is present. <ol style="list-style-type: none"> a. On-site coverage. Inventory CLS Bag and check operational readiness prior to 1st day of range operation. Request and restock as necessary. b. Area coverage. Make face-to-face coordination with medics. Review route to range (issue strip map if needed), conduct a comms check (FM or handheld), and follow guidelines in paragraph a. Establish and rehearse medevac LZ procedures. Medic will brief route to next higher care 	Low	Range/ general situational awareness	<p>OIC / RSO / NCOIC / INSTRUCTOR</p> <p>SFC COLEGROVE/ SFC AUGUST / SSG DENNIS</p>	
	12. Loss of hearing or eyesight	Moderate	<p>RANGE NCOIC OR SAFETY OFFICER WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> 1. Brief soldiers on the dangers of low-hanging branches. 2. Ensure all soldiers wear single hearing protection (CVC or earplugs). 3. Ensure extra hearing protection is available (see Supply NCO) <p>RSO / INSTRUCTORS WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> 1. Ensure soldiers are wearing hearing protection while maneuvering downrange 	Low	<p>Educate students on Dangers</p> <p>Provide and enforce use of protection</p>	<p>OIC / RSO / NCOIC / INSTRUCTOR</p> <p>SFC COLEGROVE/ SFC AUGUST / SSG DENNIS</p>	

ITEMS 5 THROUGH 12 CONTINUED:

5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
	13. Soldier bitten or stung by snakes or insects	Moderate	<p>RANGE NCOIC OR RANGE SAFETY OFFICER WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> Brief students of the various types of hazardous wildlife and instruct students not to handle or harass the wildlife. <p>RSO / INSTRUCTORS WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> Identify soldiers who are allergic to insects. Ensure that those soldiers have equipment to remedy themselves (bee sting kits, etc). Soldiers with severe allergies are marked with engineer tape w red X." 	Low	Educate students on dangers	OIC / RSO / NCOIC / INSTRUCTOR	
	14. Soldier injured lifting ammunition or equipment	Moderate	<p>RANGE OIC / RSO WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> Identify the hazard during the safety briefing. <p>RANGE NCOIC / INSTRUCTORS WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> Enforce personnel will work in groups and use proper lifting techniques 	Low	Additional Supervision	OIC / RSO / NCOIC / INSTRUCTOR	
	15. Hatch closes on a soldier	Moderate	<p>OIC / RSO WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> Conduct a Range Safety Briefing <ol style="list-style-type: none"> Range OIC will address the hazard during the safety briefing. All soldiers will be familiar with hatch operation prior to deploying to the range. TC's will ensure that hatches have all required safety pins and that they are operational. 	Low	Additional Instruction and supervision	OIC / RSO / NCOIC / INSTRUCTOR	
	16. Vehicle strikes another vehicle	Moderate	<p>OIC / RSO WILL DO THE FOLLOWING:</p> <ol style="list-style-type: none"> Conduct a Range Safety Briefing Soldiers will ground guide vehicles VCE's will ensure vehicle separation is maintained at all times. Barrels will be fully elevated when passing another vehicle on the range 	Low	Additional instruction and increased supervision	OIC / RSO / NCOIC / INSTRUCTOR	
						SFC COLEGROVE/ SFC AUGUST / SSG DENNIS	

ITEMS 5 THROUGH 12 CONTINUED:

5. SUBTASK	6. HAZARDS	7. INITIAL RISK LEVEL	8. CONTROLS	9. RESIDUAL RISK LEVEL	10. HOW TO IMPLEMENT	11. HOW TO SUPERVISE (WHO)	12. WAS CONTROL EFFECTIVE?
	<p>17. Soldier hits head or is struck by equipment in crew compartment</p> <p>16. DODICS</p>	<p>Moderate</p> <p>Moderate</p>	<p>5. Tanks will keep a minimum distance of 50 meters between each other while on movement during periods of clear/ unrestricted visibility</p> <p>6. Tanks will keep a minimum distance of 100 meters between each other during periods of limited visibility</p> <p>7. TC's, Instructors, VCE's, or drivers will halt movement when visibility conditions are severely restricted, and service drives will be used (dust / whiteout conditions)</p> <p>1. Range OIC or RSO will cover safety procedures during safety brief.</p> <p>2. TC's will ensure that all equipment is properly stowed and secured.</p> <p>3. TC's will ensure that all soldiers wear Kevlar or CVC helmets.</p> <p>OIC and RSO will inspect the rounds on the range with the Ammunition NCO to ensure the proper Ammunition has been placed on the range IAW the Fire/Non-Fire Data. DODICs to be fired are: AA38 SLAP-T, C784 HEAT (M831-A1), C785 SABOT (M865 PIP), CA38 CANNISTER (M1028), C511 HEAT (M490), C520 SABOT (M724A1), CA37 HEP (M467A1)</p>	<p>Low</p> <p>Low</p>	<p>Additional instruction and increased supervision</p> <p>Team Chief will ensure the OIC and RSO check each ammunition by DODIC as each ammunition can is opened. And will be briefed by the OIC once ammunition is inspected.</p>	<p>OIC / RSO / NCOIC / INSTRUCTOR</p> <p>SFC COLEGROVE/ SFC AUGUST / SSG DENNIS</p> <p>OIC / RSO / NCOIC / INSTRUCTOR</p> <p>SFC COLEGROVE/ SFC AUGUST / SSG DENNIS</p>	



RECORD OF ENVIRONMENTAL CONSIDERATION (REC)



Date Submitted: 11/30/2011

EMD Number: 1133402

Project#: Unknown

Project Title: Tank Range Training

Description of proposed action:

M1A1/M1A2 Abrams and MGS live fire gunnery familiarization training. This will be two days of live fire training where the tanks and MGS will be stationary on the concrete pad in front of the tower and firing the 120mm and 105mm main guns at the targets downrange. All movement on the range will be on gravel that is around the concrete firing line and down the hill to the ammunition point. The other environmental concerns are re-fueling operations which will be conducted on the concrete base line. A spill kit and Hazmat certified NCO will be present on the range in the event of vehicle leaks or spills during re-fueling operations. The Hazmat NCO will take any required actions to ensure compliance with local regulations in the event of a spill or leak. Ammo to be used: 120mm = M831, M865, M1028, 105mm = M490A1, M467A1, M1040; .50cal = M962

Project Location:

Brooks Range

Amount, Description, Location of Disturbance/Digging:

None

Number of Personnel:

30

Type of Ammunition:

See Project Description
Live

Number/Types of Trees:

None

Size of Project Area: N/A

Duration of Action: Start: 12/5/2011 Stop: 9/30/2012

Proponent: Jeffrey Colegrove 706-626-7909

Organization/Unit: M Troop Unit 3-16 Cav

Number/Types of Vehicles:

Number of vehicles: 10
Types of vehicles: Tank, truck, MGS
No-Vehicles will be going off road.

DECISION: Concur with conditions

This Action is adequately covered in the Existing EA titled: 'Ongoing Mission and siting Activities, USAIC, FT.Benning, GA.'

(NA): Training involving LIVE FIRE and tracked vehicles has NO CATEX -- "Ongoing Mission and Siting Activities, USAIC, Ft. Benning, GA."

REC APPROVED THROUGH 30 SEPTEMBER, 2012

Noise

Conditions:

Ellis Leeder (706 545 2400), 11/30/2011

This is training operations that must be conducted. If there is any noise complaints received, the Environmental Management Division Installation Operational Noise Monitoring Program (IONMP) and or Public Affairs Office (PAO) programs will investigate and then recommending operational noise mitigation actions to the appropriate personnel for the training actions. In accordance with the Army's policy on environmental noise management, all efforts shall be made to minimize noise annoyances to the highest extent practicable with training operations without interfering with the proposed missions. Please follow the fly friendly program avoiding no fly zones. Please follow good smoke management practices not allowing smoke or dust to travel off Installation boundary into public areas or roads. Please increase distance between vehicles when dust conditions are extreme, see Table 5-3. CS gas use should be utilized in designated areas only, contact Range Control for a listing of approved sites. If any assistance or a copy of MCoE Regulation 350-19 or the IONMP noise plan is needed for review, please feel free to contact Ellis Leeder at 706.545.2400 or email ellis.p.leeder.civ@mail.mil or visit the Range Control Website for the updated version of MCoE Regulation 350-19

Natural Resources - RCW

None

Michael Barron (706 544 7080), 11/30/2011

CWA- Training

Conditions:

Felix Seda (706 545 9879), 11/30/2011

Environmental Review: Caution within training areas and motor pools should be taken to protect all nearby waterways (including perennial, intermittent streams and wetlands); as well as ground surfaces and any other sensitive areas in the vicinity of the training areas. Potential spills/releases from this activity that may occur before and/or during the FTX include: 1. Discharge and/or improper disposal of oil or hazardous substances into or upon land, water, or into ground water areas from storage, handling and/or transportation of hazardous materials/waste; 2. Vehicle/equipment/generators leaks; 3. Fuel loading/unloading/refueling operations; 4. Field mess facilities/equipment/operations, and/or 5. Ammunitions /explosives (as applicable, before and/or during the FTX).

General SPCC Requirements: Ensure all hazardous materials are properly storage to prevent spill/discharges, to meet safety requirements for storage, and that containers are not exposed to the weather. Have adequate spill response supplies available during exercise for any spills that may likely occur. Use drip pans under vehicles and provide secondary containment for any fueling activities and hazardous material/waste storage. Locate all refueling operations and storage of hazardous materials/waste away from waterways and sensitive areas. See attached section on prevention procedures and CHECKlist (Example Unit/Activity SOP for Training and Deployment) to be used during training exercise to comply with SPCC plan requirements. Ensure all wastewater from field mess equipment/operations particularly those involving oil/grease are collected and dispose properly. Do not discharge any wastewater into storm drains or dispose of oil/grease waste directly into land.

General ISCP Requirements: In the event of a spill/discharge -- notify Range Control by radio or call 544-6291, and they will notify E-911 for Fire Department/HAZMAT Team assistance ad/or notification of the EMD office (Spill Beeper 706-317-6584). As appropriate, and if personnel are trained -- REACT to minimize spill damages. Submit a spill report to the EPMB Spill Program Manager (use Spill Response Report attached). All spills reaching navigable water must be reported immediately. The unit is responsible for the final cleanup of any spill during this exercise. Coordination with this office is required for clearance of the site.

NOTE: For refueling operations - Recommended distance of approximately 100' (30 meters) from any water source.

For environmental considerations to protect water quality; all food service facilities and waste collection areas (including Port-a-Potties) must be located away from any water wells, state waters, and waterways (including drainage ditches) in the vicinity of the training area. Recommended distance of approximately 100' (30 meters) from any water source. No wastewaters should be discharged into waterways. No food, grease, garbage, human waste is to be left on site. All fats/oil/grease and/or solid waste must be collected and dispose of properly. Failure to follow these guidance could cause the site to be close for future use. Recommend use and implementation of FM 4-25.12 (FM 21-10-1) Unit Field Sanitation Team preventive medicine measures when establishing field food service facilities and other waste facilities. To include but not limited to Chapter 2, Section IV: Waste Disposal; Appendix A Lesson 6: Waste Disposal in the Field; Appendix B - Figures B-25, B-26, B-27, B-28. Unit to submit POC in charge of monitoring these activities. For additional specific guidance on field sanitation requirements - contact Fort Benning Preventive Medicine POC: Lt Sanchez-Perez at 706 545 1446 or SGT Montoya at 706 545 1445.

Hazardous Materials/Waste

Conditions:

Theresa Smith (706 545 1007), 11/30/2011

1. Ensure personnel know the correct procedure for handling misfires at the range:

- Closed containers (ammunition can marked 'MISFIRES") will be used for the collection of misfires at each firing range.
- The MISFIRE container will stay closed except to add or remove misfires.
- Misfires SHALL NOT BE COLLECTED in any open container or cardboard box.

All excess, unused munitions (including smoke canisters) must be returned to the Ammunition Supply Point (ASP) after the range operation is complete. Defective, misfired, or otherwise unserviceable munitions may be destroyed on the range, as part of the training exercise, in coordination with EOD.

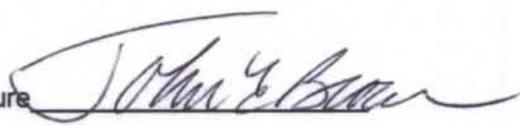
A dud shall not be removed from the range; it will be marked, called into range control and will be properly disposed of by EOD personnel IAW MCOE 350-19.

2. Patches and swabs collected from weapons cleaning must be double bagged and turned into the Unit Hazardous Waste Manager for proper disposal.

3. Rubbish, empty containers and other waste shall be removed from the training area after the exercise. Contact EPMB for detailed information on the proper disposal of waste products resulting from the exercise.

4. Any waste generated must undergo a waste stream analysis to determine appropriate management requirements. If any hazardous waste is generated it must be managed in accordance with Federal, State, Army and Fort Benning regulations. Appropriate precautions must be taken to prevent hazardous material spills. Have adequate quantities of spill response supplies on hand. If a spill occurs use notification procedures as outlined in the Fort Benning Hazardous Waste Management Plan. Contain and clean up spill according to guidance provided by the Environmental Protection Management Branch.

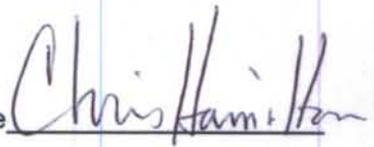
5. Contact Ted Williams, 706-545-7579 for questions or additional guidance.

Signature 

John E Brown

NEPA Program Manager

Date 1 DEC 2011

Signature 

Christopher E. Hamilton, PhD

EPMB Chief

Date 1 Dec 11

Example Unit/Activity SOP for Training and Deployment

Introduction

This SOP is divided into two main sections: PREVENTION & RESPONSE. The following sections will assist you in planning your environmental activities while bedding down, initiating, sustaining and conducting field exercises, and/or during deployment. Before you deploy, ensure you are familiar with the following:

What Are Hazardous Materials and Hazardous Wastes

Hazardous Materials are defined as any material that may be a health or physical hazard, or any material that, based on either chemical or physical characteristics, is capable of posing a risk to human health or the environment if improperly disposed of, handled, stored, or transported. Chemical and physical characteristics that may pose a risk to human health or the environment include, but not limited to, one of the following characteristics: Ignitable; Corrosive; Reactive and/or Toxic.

Hazardous Waste: is defined as any discarded material (solid, liquid or gas) that:

1. Has no further value and cannot be reused or recycled;
2. Is harmful to human health or the environment due to its quantity, concentration, biological, chemical or physical characteristics; and/or
3. Exhibits one or more of the characteristics as described for Hazardous Material.

Contaminated or unusable fuel is a typical hazardous material/hazardous waste common to training and deployment operations and should be handled, stored, and disposed of properly.

Ten of the most common hazardous materials/hazardous wastes that you will encounter during training and or deployment operations include:

- Fuel
- Engine Oil
- Bleach or DS-2
- Solvent
- Anti-Freeze
- Transmission Fluid
- Used Oil Filters or Batteries
- Empty POL Containers
- Brake Fluid
- Grease.

These materials should be handled, stored and disposed of properly.

SPILL KITS: Spill kits should be maintained in and around all locations where hazardous materials/hazardous wastes are stored, handled, or disposed. Various types of kits may be ordered through the U.S. Army Supply System and include: rubber gloves, safety goggles, putty, rubber mallet, wooden plugs, absorbent booms, absorbent pads, plastic bags, and in some cases, a disposal barrel.

SPILL PREPARATION: Despite the best prevention, you may run into difficulties and an accident may occur when you least expect it. To minimize contamination, hazards to people, and environmental damage, you must REACT immediately. To help you prepare, this SOP will tell you:

- **HOW to PLAN** and be ready to respond to a problem;
- **HOW to REACT** to a minor, intermediate or major spill; and
- **WHAT** to do after a spill occurs.

Planning

MINOR SPILLS

- When on the move, keep some plastic bags in your vehicle, and have your assigned On-Vehicle Equipment (OVE) ready for use.
- Maintain supplies, rags, absorbent pads, or other kinds of materials that will soak up spills on hard surfaces (like Dry Sweep), or know where you can easily obtain them.
- Keep Personal Protective Equipment (PPE) accessible (gloves, goggles, etc.).

INTERMEDIATE & MAJOR SPILLS

In addition to the procedures above:

- Know where to go for help.
- Know where spill kits are kept and learn how to use them.

Prevention

Vehicle Maintenance and Fueling Points, Hazardous Waste Collection Points and hazardous material Storage & Supply Areas may not be set up at your deployment destination. So PLAN to build your areas to prevent hazardous material accidents before they occur. Remember the following:

HAZARDOUS MATERIAL/HAZARDOUS WASTE AREA LOCATION - Locate hazardous material/hazardous waste areas away from living areas, bunkers, ammunition storage, fence lines and/or dining facilities. Place them near the areas where hazardous material are used.

MATERIAL SAFETY DATA SHEET (MSDS) - Keep MSDSs for each hazardous material stored or collected at hazardous material/hazardous waste areas.

UNIT/ACTIVITY ENVIRONMENTAL SOP & SPILL RESPONSE PLAN - Place SOP and Spill Response Plan at each hazardous material/hazardous waste area.

COMPATIBILITY OF MATERIALS - Store and/or dispose of each class of hazardous material/hazardous waste separately. MSDSs describe the classification of HMs. Four common classification include the following: Flammable (fuels), Corrosives (acids), Reactive (explosives), and Toxic (insecticides).

BEFORE you deploy, plan to pack drip pans, rags, plastic, Dry Sweep, absorbent, and spill pallets to prevent drips, spills, and leaks from seeping into the ground and contaminating soil and water resources.

SECONDARY CONTAINMENT - All liquid hazardous material/hazardous waste must have secondary containment. In order for it to be effective it must:

1. Hold 10% of the total hazardous material/hazardous waste stored or 100% of the largest container.
2. Have sand and/or pallets placed in certain areas to protect the liner.
3. Have overhead cover.

You should continually keep your hazardous material/hazardous waste areas clean and orderly by applying the principals of Monitoring and Housekeeping. An easy way to remember what to check, is

to remember your **CHECK** list:

Containment:

___ Ensure that secondary containment is used and in good condition.

___ Empty water within secondary containment on a regular basis and dispose of it as hazardous waste at the Hazardous Waste Collection Point.

Hazardous Material/Hazardous Waste Locations:

___ Make sure the locations of your hazardous material/**hazardous waste** are well chosen.

___ Put up warning signs and keep them clean and orderly.

Environmental Documentation:

___ **Maintain MSDSs for each hazardous material and update Unit/Activity SOPs and Spill Response Plans regularly.**

Containers:

___ Check condition of containers and keep containers of incompatible materials in proper order.

Kits:

___ Place Spill Kits, First Aid Kits, and Emergency Response Kits in the vicinity of the hazardous material/hazardous waste areas.

See Appendix D of the ASP for specific CHECKlists for areas such as: Vehicle Fueling & Maintenance Areas; Hazardous Waste Collection Points; and Hazardous Material Supply & Storage Areas.

Response

Be prepared to respond immediately to any spill situation. Keep your Environmental SOP and Spill Response Plan (SRP) readily available at the main hazardous material/hazardous waste areas. The SRP should ensure that the following measures are implemented:

- PERSONAL PROTECTIVE EQUIPMENT (PPE) - At the entrance of every hazardous material/hazardous waste area, keep a supply of PPE to protect hands, eyes, skin, ears, head, feet, and lungs. If you are unsure about which items you need, consult the MSDS for the HMs that you are using.
- MSDS - Make sure that MSDSs are available in order to REACT to spills safely and effectively.
- SPILL STATIONS - Maintain spill response equipment at a station near (not inside of) hazardous material/hazardous waste areas. They should contain: First Aid Kits, Fire Extinguishers, Spill Response Kits, and Emergency PPE.
- TRAINING - Improve your readiness by practicing the SPILL DRILL on a regular basis, and be sure to know the spill reporting process.

Respond to spills, major or minor, immediately in order to eliminate hazards that could cause personal injury and/or environmental damage. If assistance is required, or spill/release is major, immediately call **911** or the **Fort Benning Military Police (MP) Desk**.

In any spill situation:

1. **Safety First!** – Protect yourself by using PPE, including goggles, gloves, and suits. THEN...
2. Do the **SPILL DRILL – REACT**:

REMOVE THE SOURCE: Plug the drip or leak and stop the spill.

ENVELOP THE SPILL: Place absorbent booms around the spill area, or build an earthen dam, when appropriate, around the spill.

ABSORB/ACCUMULATE: Place appropriate absorbent material (Dry Sweep, pads, etc.) on the spill in the middle of the boomed-off area.

CONTAINERIZE THE HAZARDOUS WASTE: Use a shovel to place contaminated materials (including soil, booms, pads or other materials) in a plastic bag or a waste drum.

TRANSMIT A REPORT: If a spill is too large to handle alone, - REACT as best you can and get help!

See Appendix D of the ASP for specific REACT actions for spills involving:

- **Minor Spills** (20 gallons or less);
- **Intermediate Spills** (from 21-55 gallons); and
- **Major Spills** (more than 55 gallons), or any spill into water, where injuries occurred or where spills occurred off Fort Benning associated property.

In addition:

- Prevent hazardous material from entering storm sewers and waterways;
- Minimize impacts to vegetation and wildlife; and
- Notify proper personnel and maintain record of spill event.

Acronyms are defined in the ASP Table of Content

APPENDIX H

Spill Kits and Response Material Checklists

Summary Spill Kit and Response Material Checklist

Recommended Spill Kits for Unit/Activity Motor Pools, Aircraft Hanger Areas, and all POL Field Sites

Recommended Spill Kits for Fuel Carrying Vehicles

Recommended Spill Kits for Other Military Vehicles

Vehicles Transporting Hazardous Materials other than POL

Summary Spill Kit and Response Material Checklist

Spill Kits and Response Material	Primary Contents
<p>Spill kits should be maintained in and around all locations where hazardous material and hazardous waste are stored, handled, or disposed.</p> <p>The contents of a spill kit will vary depending on the hazardous materials and their characteristics.</p> <p>Hazardous materials other than POL will require spill kits to meet their specific requirements, (i.e., acid spill kit for Battery Shop that handles lead acid batteries).</p>	<p>Spill kits should include as a minimum:</p> <ul style="list-style-type: none"> ✓ Rubber gloves, ✓ Safety goggles, ✓ Putty, rubber mallet, ✓ Wooden plugs, ✓ Absorbent booms, ✓ Absorbent pads, ✓ Plastic bags, and ✓ In some cases, a disposal barrel.
<p>The Unit/Activity must check the material's MSDS for specific information on PPE and spill supplies.</p>	<p>Units/activities transporting hazardous materials should also plan for having a minimum amount of response materials on hand.</p> <ul style="list-style-type: none"> ✓ Various types of kits can be ordered through the U.S Army Supply System (through the Units supply or S-4 shop); ✓ The Unit/Activity must assess their hazardous material inventory and plan to have enough spill response material to respond to the larger container within their facility and the minimum for any specific hazardous material that require specific spill materials or PPE; and ✓ Whenever the Unit gets to this minimum level, the user should initiate a reorder to the supply NCO or S-4 to maintain the minimum amount on-hand.

Acronyms are defined in the ASP Table of Contents

Recommended Spill Kits for Unit/Activity Motor Pools, Aircraft Hanger Areas, and all POL Field Sites

30-Gallon POL Boom Kit: Absorbs Approx. 40 Gallons
Polyurethane 2 Rolls
55-Gallon POL Kit: Absorbs Approx. 40 Gallons
1 55 Gallon Drum
2 Bags Absorbent
6 Booms 2x10
50 Absorbent Pads
10 Heavy Duty Trash Bags

Recommended Spill Kits for Fuel Carrying Vehicles

It's recommended that all fuel carrying vehicles should have a transportation pack spill kit or equivalent spill equipment on board at all times. The following vehicles are considered to be fuel transporting vehicles: HEMITT M971 2500 gallons, Tanker 5000 gallon, M49C 1200 gallon, Tank and Pump unit 600 gallon.

The following is a list of the minimum level of spill equipment recommended to be on hand in all fuel carrying vehicles, especially if they are traveling within the Installation or in a filed exercise.

Drip Pan

30-Gallon POL Kit: Absorbs Approx. 20 Gallons

1 30 Gallon Drum
1 16 pound bag Absorbent
3 Booms 2x10
25 Absorbent Pads ~17x19
5 Heavy Duty Trash Bags
1 Dust Pan

Recommended Spill Kits for Other Military Vehicles

Recommended on Vehicle Equipment (OVE) for small spills (usually from vehicle leaks):

1 drip pan
4-5 absorbent pads
1-2 plastic bags.

Additional Materials or Equipment

For each one of these recommended spill kits, the following should be available:

PPE such as: Goggles and Gloves. (2-3 pairs)
1 Shovel
2 Labels for wastes
1 Spill report
1 Inventory

Vehicles Transporting Hazardous Materials other than POL

- ✓ Transportation of hazardous materials is regulated under the Department of Transportation. Personnel transporting hazardous materials must follow all DOT requirements.
- ✓ As a preventive measurement, vehicles transporting small amounts of hazardous materials or waste should have a transportation pack spill kit or equivalent spill equipment on board to REACT in the event of an incident.

- ✓ Hazardous Materials other than POL will require spill kits to meet their specific requirements. The Unit/Activity should check the MSDS for the materials that they transport and have appropriate amount for those particular materials.

Spill Response Record

PHASE I-IMMEDIATE ACTIONS FOR EVALUATING AND REPORTING SPILLS:

IMMEDIATELY REPORT ALL SPILLS TO YOUR SUPERVISOR AND/OR CALL 911 or the Fort Benning Military Police (MP) Desk

****BE PREPARED TO PROVIDE THE FOLLOWING INFORMATION TO THE 911 OPERATOR:**

During Duty Hours also Call Mr. Felix Seda, EMD Spill Manager at (706) 545-9879

1. DATE/TIME OF SPILL: _____ / _____
2. LOCATION: _____
3. MATERIAL SPILLED (include NSN and ingredients, if able): _____
4. HAZARD: FLAMMABLE _____ TOXIC _____ CORROSIVE _____
OXIDIZER _____ REACTIVE _____ UNKNOWN _____
OTHER (Specify) _____
5. CAUSE OF SPILL: _____
6. DESCRIPTION OF SPILL QUANTITY, SIZE AND TYPE OF AREA AFFECTED:
 - a. Quantity Released and Size of Spill Area: _____
 - b. Soil: _____
 - c. Pavement: _____
 - d. Vegetation: _____
 - e. Storm of Sewer Drain: _____
 - f. Name of body of Water (River, Creek, Pond, Lake, Drainage Ditch): _____
7. HAS RELEASE BEEN STOPPED? _____
8. HAS RELEASE BEEN CONTAINED? _____
9. DID RELEASE CROSS INSTALLATION BOUNDARIES: (IF YES, DESCRIBE LOCATION): _____
10. TYPE AND EXTENT OF INJURIES, IF ANY: _____

****Provide a copy of this form to DPW EMD Spill Program Manager or FAX to (706) 545-4209**

PHASE II — POST-SPILL RESPONSE AND CLEAN UP ACTIONS:

11. DESCRIBE CLEAN-UP METHOD AND CONTAINMENT PROCEDURES: _____
12. NAME OF CONTRACTOR INVOLVED IN CLEAN-UP: _____
13. ESTIMATED AMOUNT OF SPILL RESIDUE AND CONTAMINATED MATERIAL REMOVED: _____
14. ESTIMATED COST OF CLEAN-UP: _____
15. CORRECTIVE ACTION TAKEN OR TO BE TAKEN TO PREVENT FUTURE SIMILAR INCIDENTS: _____
16. NAME AND PHONE NUMBER OF PERSONNEL REPORTING SPILL: _____

****KEEP THIS FORM FOR A MINIMUM OF 5 YEARS**

FORT BENNING ENVIRONMENTAL REGULATIONS SUMMARY

RED-COCKADED WOODPECKER (RCW): Cavity trees are identified by two white bands. Cluster boundaries extend 200 feet around each cavity tree, and are delineated by diamond-shaped signs. **WITHIN a cluster:**

- Personnel MAY NOT stay for more than 2 hours; NO BIVOUACS.
- The only digging allowed is BY HAND for hasty defense light infantry fighting positions. ALL other digging is prohibited.
- Within one half mile of a cluster, NO MECHANICAL DIGGING may be done within 20 feet of any mature pine tree (8 inch diameter or greater).
- Off-road vehicles MAY NOT come within 50' of any cavity tree.
- Use only .50cal and 7.62mm (or smaller) blank ammo; NO LIVE FIRE.
- CS gas, HC smoke, and noise generators MAY NOT be used.
- Incendiary devices (including trip flares) MAY NOT be used.
- Only hardwood may be cut for camouflage; CUT NO PINE.

GOPHER TORTOISE: Inhabits burrows in high sandy areas. Some burrows are marked by white 1" PVC pipe topped with reflective tape. Digging and vehicular traffic must be kept more than 50 feet away from burrows.

----- CUT HERE -----

ENVIRONMENTAL INCIDENT REPORT FORM

For your protection, company commanders are asked to document any environmental incidents by completing this card and forwarding it to the Chief, Environmental Management Division, Building 6, Room 307, or call 545-2180, within 24 hours of incident. Check off incident and take corrective actions.

- ___ bivouacking in RCW cluster (Relocate bivouac site.)
- ___ off-road driving / parking within 50' of RCW cavity tree (Relocate.)
- ___ digging in RCW cluster [except individual hasty fighting positions] (Refill holes.)
- ___ scarring or felling of trees in RCW cluster (Contact EMD Conservation Branch through Range Control.)
- ___ digging or driving in Sensitive Area (Relocate, DO NOT refill holes.)
- ___ wildfire started (Begin suppression and contact Range Control.)
- ___ POL spill greater than 20 gallons on land or any quantity on water (Immediately contact Range Control and begin spill control - REACT.)
- ___ POL spill less than 20 gallons on land (Begin spill control - REACT; contact Range Control and submit a Spill Report Form to EMD within 24 hours.)

FORT BENNING ENVIRONMENTAL REGULATIONS SUMMARY

SENSITIVE AREAS: Endangered species habitat or cultural resources. They are marked with steel pickets and white signs. Digging and vehicular traffic is prohibited.

POL/HAZMAT SPILLS: Report all spills through Range Control at 545-3474. If assistance is required from the Fire Department/HAZMAT Team, Range Control will make notifications through E-911. For POL spills greater than 20 gallons on land or any quantity on surface water, the Environmental Management Division (EMD) must be immediately notified through E-911 or 545-9879/4203. For POL spills less than 20 gallons on land, a Spill Report Form must be submitted within 24 hours to the EMD (Call 545-9879 and/or FAX 545-4209). After hours call the spill pager at 317-6584.

Unit should begin spill control measurements (REACT) within their capabilities. If a spill occurs within a sensitive area; stop the source, contain, and absorb the spill material - do not dig until EMD personnel arrive at the site.

Be prepared to report:

- Time, grid location, and cause of spill.
- Type of product and amount spilled.
- Distance from flowing water.
- Action taken to combat spill.

See USAIC 210-4, Range and Terrain Regulations, for more detail.

ENVIRONMENTAL INCIDENT REPORT FORM

Unit: _____

OIC/NCOIC: _____

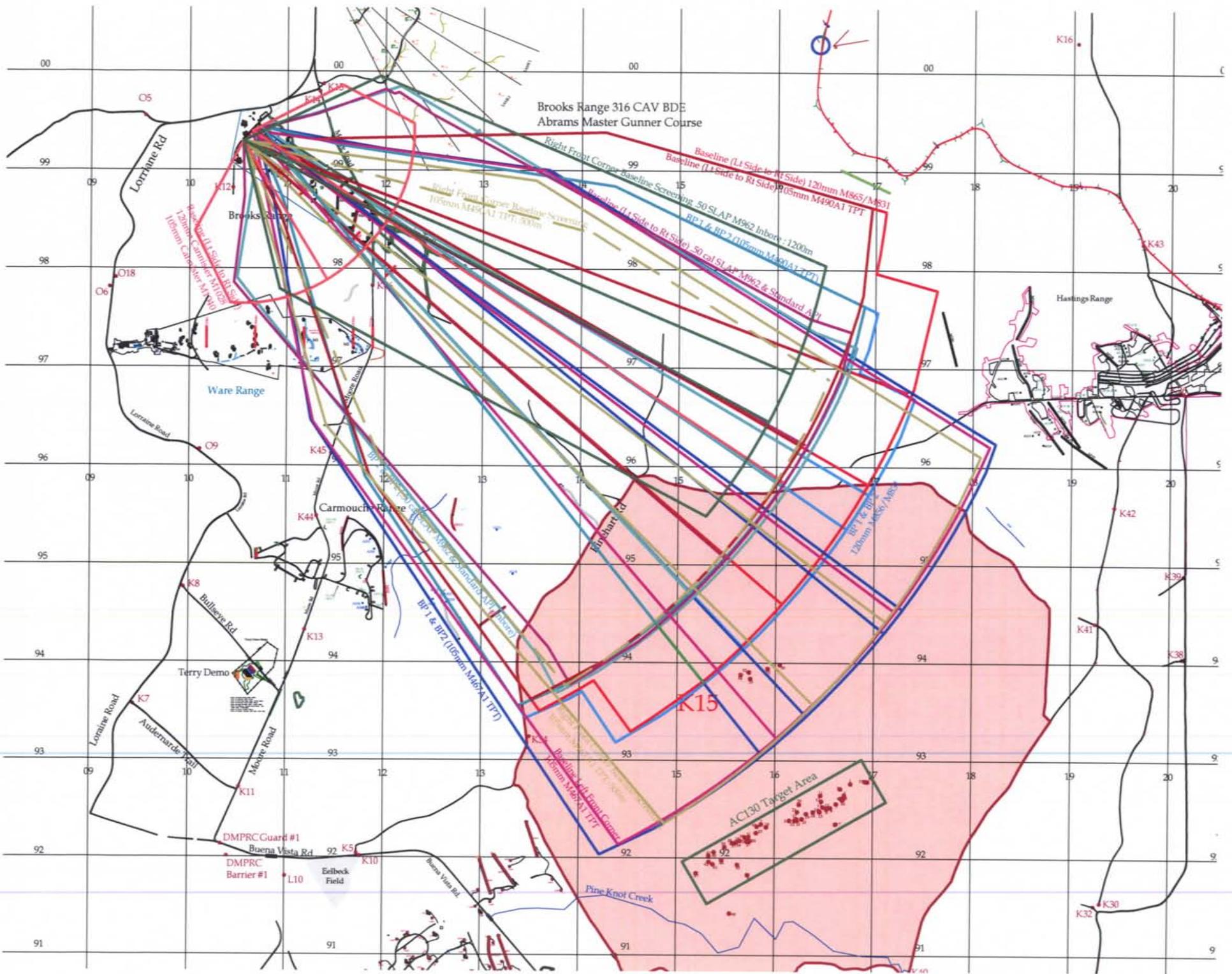
Training Area: _____

Grid Coordinates: _____

Date and Name: _____

Signature: _____

FB (DPW) Form 31, 1 May 2004 PREVIOUS EDITION OBSOLETE



Brooks Range 316 CAV BDE
Abrams Master Gunner Course

AC130 Target Area

Lorraine Rd

Ware Range

Carmouche Range

Hastings Range

Terry Demo

Audemarde Rd

Moivre Road

DMPRC Guard #1

DMPRC Barrier #1

L10

Eilbeck Field

Buena Vista Rd

Pine Knot Creek

Right Front Corner Baseline System

Baseline (Lt Side to Rt Side) 120mm M865/M831

Baseline (Lt Side to Rt Side) 105mm M490A1 TPT

Baseline (Lt Side to Rt Side) 50 cal SLAP M962 & Standard AP

BP 1 & BP 2 (105mm M490A1 TPT)

Right Front Corner Baseline System

105mm M490A1 TPT 500m

Baseline (Lt Side to Rt Side) 50 cal SLAP M962 & Standard AP

BP 1 & BP 2 (105mm M490A1 TPT)

Baseline (Lt Side to Rt Side) 50 cal SLAP M962 & Standard AP

BP 1 & BP 2 (105mm M490A1 TPT)

Baseline (Lt Side to Rt Side) 50 cal SLAP M962 & Standard AP

BP 1 & BP 2 (105mm M490A1 TPT)

Baseline (Lt Side to Rt Side) 50 cal SLAP M962 & Standard AP

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