

FIRING/NONFIRING DATA

LOG# 7-8-15

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: 27 July 2015 Range: Ware Range Title: 19D OSUT LFX Problem No: |
| THRU: 194th AR BDE Fort Benning, GA 31905 | FROM: S3, 5-15 CAV, 194th AR BDE Fort Benning, GA 31905 |

SECTION I, TYPE OF TRAINING

a. Live Fire
 b. Non-live Fire
 CP/Controller Coordinates: Tower 0963 9728

SECTION II, DEMOLITIONS/GRENADES/MINES/PYROTECHNICS

| Coordinates | Type | Model/DODAC | Size of Charges |
|-------------|------|-------------|-----------------|
| N/A | N/A | N/A | N/A |
| | | | |
| | | | |
| | | | |

SECTION III, WEAPONS/AMMUNITION REQUESTED

| Coordinates of Weapons Position | Type Weapon/Model Number | Type Ammunition | Left Limit | Right Limit |
|---------------------------------|--------------------------|-------------------------|-------------------------|-------------------------|
| See Weapons & Ammo List | See Weapons & Ammo List | See Weapons & Ammo List | See Weapons & Ammo List | See Weapons & Ammo List |
| | | | | |
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SECTION IV, LIVE FIRE EXERCISES Attach the following:

SECTION V, NON-LIVE FIRE TRAINING

| | |
|---|--|
| <input checked="" type="checkbox"/> Scenario of training to be conducted: <input checked="" type="checkbox"/> Sketch of area: <input checked="" type="checkbox"/> Risk Assessment: <input type="checkbox"/> Attach FB Form 350-19-2-E-R if Mortar or artillery is being fired: | Training area(s) to be occupied: <input type="checkbox"/> Scenario of training to be conducted: <input type="checkbox"/> Sketch of area(s) to be occupied: <input type="checkbox"/> Risk Assessment: |
|---|--|

| | |
|---|---|
| Name/rank of requesting officer: MCNEAL, NATHAN K. SSG | Name/rank of Major Unit S3/Commander: CUSHING, JOHN M. COL |
|---|---|

SECTION VI, FOR RANGE DIVISION USE

| | |
|--|--|
| TO: 5-15 CAV, 194th AR BDE Ft. Benning, GA 31905 | 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: 30 Aug 17 | <p align="center" style="color: red; font-weight: bold; font-size: 1.2em;">SEE ROAD BLOCK ENCLOSURE</p> |
|---|---|



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
HEADQUARTERS, 5TH SQUADRON, 15TH CAVALRY REGIMENT
WHELLOCK HALL, BLDG. 4318
7226 2ND CAVALRY REGIMENT STREET
FORT BENNING, GEORGIA 31905

ATZK-BAE

26 August 2015

MEMORANDUM FOR RANGE CONTROL

SUBJECT: One Station Unit Training Live Fire Scenario

1. The following request outlines the request of 5th Squadron 15th Cavalry Regiment to conduct live fire exercises that incorporates the Stryker MGS firing from the BP at target list see attachment. The M2A1 .50 Caliber machine gun mounted on the HMMWV or Stryker will be fired from Right 1/3 sector of the firing line (baseline) at target list see attachment. BFV's will fire from Left 1/3 sector of the firing line (baseline) at target list see attachment. If the unit has not yet conducted dismounted firing of the M2A1 .50 cal and M240B they will be fired from the center 1/3 sector of the firing line. BFV's, Strykers and HMMWV's with either M240B machine gun or .50 caliber machine gun mounted can be fired from BP1 and BP2 at the appropriate target list see attachment. **At no time will the firing line (baseline) and BP1 & BP2 fire simultaneously. BP1 & BP2 will not be occupied when firing from the baseline.** The Long Range Advance Scout Surveillance System (LRAS) trucks will be used in conjunction with the live fire exercise that incorporate a Call for Fire mission. Vehicle position will be marked by the Master Gunner in the wood line behind the firing line (baseline) or make use of BP1 & BP2 in the down/defilade position ONLY. CFF station 1 and 2 will communicate by radio with the tower to complete this task on targets greater than 1700 meters. This exercise will be conducted on Ware Range as a part of the 19D POI requirement.

2. Scheme of maneuver:

a. (Phase 1) Gunnery exercise will be a setup day consisting of Bradley Fighting Vehicle movement to the range by HETT. Cadre members will download the vehicles and move the Bradley's to BP1 and BP2. The BFV's hull and turret will be oriented on the left range fan. All tracks and bolts will be lubricated, prefire checks, and bore sight procedures will be completed. The Master Gunner will verify emplacement of each vehicle on the firing line. The HMMWV's, Stryker RV's, and Stryker MGS will road march to the range by cadre members and will be placed on the right side of the baseline (firing line) and then mount the weapon on top of the vehicles. The Stryker MGS will stage with the BFV's. The vehicles will then be secured and a guard force will be emplaced. All weapon systems will be clear with no ammo in the vehicles. Phase ends once unit setup is complete.

b. (Phase 2) The trainees will be transported to the range by bus and will receive a Safety Briefing and a Conduct of the Range Brief by the RSO. The non-firing platoons will conduct range support. Range support will issue weapons, break down ammo, move weapons on and off the range once cleared by RSO and conduct police call. Ammunition will be broken down in preparation for pick up. Weapons will not be loaded until vehicle is in the firing position and after the command is given.

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SUBJECT: One Station Unit Training Live Fire Scenario

c. Once a hot status is given, cadre will conduct zero procedures for the CFV and LFAST procedures for the MGS. Once this is complete, a firepower demonstration will be executed with the Stryker MGS, CFV, and HMMWV platforms crewed by cadre.

d. Demonstration vehicles will clear off and the firing platoon will cycle through four stations. The M2A1 .50 Caliber/M240B Dismounted (if required), M240B/M2A1 Machine Gun mounted on HMMWV/Stryker, and the BFV. The firing platoons will don the required uniform based on platform they will fire, file through the ammo pad, and receive their ammunition.

e. The trainees will receive 200 rounds of 7.62mm link and 200 rounds of .50 cal for day fire and 100 rounds of 7.62mm link and 100 rounds of .50 cal for night fire using PAS13. Once the trainees have moved to their firing vehicle, cadre members will instruct and supervise them through the loading process and barrel change procedures as necessary. Once complete with 240B trainees will conduct an AAR and then rotate to the .50 cal machine gun. The M240B center 1/3 sector of baseline and M2A1 MG right 1/3 sector of baseline or BP1 and BP2 will utilize targets on target list.

f. They then move as a platoon to the last station; BFV. As a group, BFV fires will receive 210 rounds of 25MM per four trainees for day and night fire. BFV's firing from the left 1/3 sector of baseline or BP1 and BP2. Once each platoon finishes all four stations, they will swap rolls with the platoon in support. The trainees will receive a Safety Briefing and a Conduct of the Range Brief by the RSO. The non-firing platoon will swap rolls with the firing platoon and perform the same process as the day prior. All weapons system must remain up and down range at ALL times. The appropriate fire commands will be given by the Cadre and proper response terms will be given by trainees while conducting during the dry and live fire iterations of gunnery.

g. (Phase 3) Once all firing is complete and the training objective has been accomplished, all weapons will be cleared each day by the RSO. At this time the range clearing procedures will begin so the unit can clear the range and all vehicles will be moved to the next training site.

3. Safety

a. **LASER's:** Class III A lasers are unsafe to the eye on dual low mode within 25 meters. PEM – 1A is not a tactical laser and must be used within 25 meters. Laser Warning Signs will be in place prior to opening the range. **Range safety briefing will include hazards using Lasers and NVD's.**

b. **Communications:** Unit will maintain continuous contact with Range Control at all times. If communications are lost the unit will go into a self-induced check fire until communications are restored.

c. **Incident:** When an incident occurs on the range, regardless of injury or not, the OIC/RSO will immediately call a cease fire and report it to Range Control and the using unit's Squadron headquarters. OIC/RSO will take action as directed by Range Control. The cease fire will remain in effect until the problem is resolved and cleared through Range Control. If the incident results in an injury, the OIC/RSO will use the procedures outlined in the medical paragraph. The following information will be furnished by the OIC/RSO to Range Control:

1. Designation of unit.
2. Range and location
3. Type of weapon involved.
4. Type of ammunition involved.
5. Brief summary of what happened.

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SUBJECT: One Station Unit Training Live Fire Scenario

6. Personnel injuries and extent.
7. Full Name, SS#, Rank and unit of injured personnel.
8. Extent of property damage.
9. Intentions regarding an AR 15-6 investigation.

d. **Medical:** In the event of an accident, injury or illness, the OIC/RSO will immediately call a cease fire then call 911 using the standard 9 Line MEDEVAC to determine what type of evacuation is the most appropriate for the injury (loss of life, limb or eyesight). MEDEVAC will be IAW MCoE Regulation 350-19 and MCoE 40-2. Landing zone for MEDEVAC aircraft will be established prior to use and will be marked appropriately. Range Control will be notified in this event. The cease fire will remain in effect until cleared through Range Control.

e. **Weapons/Ammunition Malfunction Reports:** When a malfunction is experienced, the OIC/RSO will suspend all firing and immediately notify Range Control. The weapons and all components and ammunition involved will remain in place. The cease fire will remain in effect until cleared through Range Control. An investigation is required and will be conducted by the ammunition and weapons inspection personnel and DOL.

f. **Ammo Point:** The ammo point NCO will control the issue and retrieval of all ammunition. All ammunition (blank, live, TP-T, etc...) will be marked and physically separated within the ammo point (or separate ammo points) and signed for by the ammo NCO.

g. **Voice:** Primary means of signaling cease fire will be FM communication. Alternate signal will be colored smoke/star cluster. Emergency cease fire signal will be RED SMOKE/ Air-horn. All signals will be included in the initial safety briefing. Anyone observing any unsafe act can call for a Cease Fire.

h. **Hearing Protection:** Impulse noise above 140 decibels require double hearing protection for all Soldiers within 16 meters of the gun systems (25mm and .50 cal.).

4. The point of contact for this action is SSG McNeal, Nathan K., HQ, 5TH Squadron, 15TH Cavalry Regiment Master Gunner at (706) 626-4123 or at nathan.k.mcneal.mil@mail.mil.


JARRELL O. HORSLEY
CPT, EN
Executive Officer

Ware Range, 1944th, 5-15 CAV OSUT Gunnery (Log #7-8-15) Weapons/Ammo And Target List 17 Aug 2015

| Firing Positions | Weapons | Ammunition | Left Limit, Mills Grid Azimuth | Right limit, Mills Grid Azimuth |
|--|----------------|---------------------|---|--|
| Left 1/3 of Baseline 0968 9735 to 0968 9731 | BFV M242 | 25mm M793/M910 | 1345 | 1925 |
| | M240C | 7.62mm Ball/Tracer | 1350 | 2090 |
| | | | | |
| Center 1/3 of Baseline 0968 9731 to 0968 9728 | M240B | 7.62mm Ball/Tracer | 1270 | 1970 |
| | M249 | 5.56mm Ball/Tracer | 1270 | 1970 |
| | | | | |
| Right 1/3 of Baseline 0968 9728 to 0968 9724 | M2 | .50 cal Ball/Tracer | 1290 | 1865 |
| | | | | |
| | | | | |
| BP1 0970 9723 | BFV M242 | 25mm M793/M910 | 1265 | 1825 |
| | M240C | 7.62mm Ball/Tracer | 1210 | 1820 |
| | M2 | .50 cal Ball/Tracer | 1265 | 1825 |
| M105/MGS | M105/MGS | 105mm/C510/C510 | 1460 | 1825 |
| | | | | |
| | | | | |
| BP2 0970 9720 | BFV M242 | 25mm M793/M910 | 1245 | 1805 |
| | M240C | 7.62mm Ball/Tracer | 1150 | 1775 |
| | M2 | .50 cal Ball/Tracer | 1245 | 1805 |
| M105/MGS | M105/MGS | 105mm/C510/C511 | 1460 | 1805 |
| | | | | |
| | | | | |
| Firing Positions | Weapons | Ammunition | Targets | |
| Left 1/3 of Baseline 0968 9735 to 0968 9731 | BFV M242 | 25mm M793/M910 | 201-225 M1, M2 | |
| | M240C | 7.62mm Ball/Tracer | C1-C7 | |
| | | | | |
| Center 1/3 of Baseline 0968 9731 to 0968 9728 | M240B | 7.62mm Ball/Tracer | C1-C7 | |
| | M249 | 5.56mm Ball/Tracer | C1-C7 | |
| | | | | |
| Right 1/3 of Baseline 0968 9728 to 0968 9724 | M2 | .50 cal Ball/Tracer | 201, 203-225, M1, M2 | |
| | | | | |
| | | | | |
| BP1 0970 9723 | BFV M242 | 25mm M793/M910 | 201, 203-225, M1, M2 | |
| | M240C | 7.62mm Ball/Tracer | C1-C3, C5-C7 | |
| | M2 | .50 cal Ball/Tracer | 201, 203-225, M1, M2 | |
| M105 | M105 | 105mm/C510/C511 | 201, 203, 205-209, 212-225, M1, M2 | |
| | | | | |
| | | | | |
| BP2 0970 9720 | BFV M242 | 25mm M793/M910 | 201, 203-225, M1, M2 | |
| | M240C | 7.62mm Ball/Tracer | C1-C3, C5-C7 | |
| | M2 | .50 cal Ball/Tracer | 201, 203-225, M1, M2 | |
| M105 | M105 | 105mm/C510/C511 | 201, 203, 205-209, 212-225, M1, M2 | |
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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

24 August 2015

MEMORANDUM FOR Commander, 5/15th CAV 7226 2nd Calvary Regiment Street, Attn: SFC Michael D. Davis, Fort Benning, GA 31905

SUBJECT: 5-15th CAV 19D OSUT Live Fire Exercise on Ware Range Scenario and DRAW Review

1. References.

- a. Army Regulation 385-10, The Army Safety Program, 27 November 2013
- b. Army Regulation 385-63, Range Safety, 30 January 2012
- c. Department of the Army Pamphlet 40-501, Hearing Conservation Program, 10 December 1998
- d. Department of the Army Pamphlet 385-10, Army Safety Program, RAR 19 January 2010
- e. Department of the Army Pamphlet 385-30, Mishap Risk Management, 02 December 2014
- f. Department of the Army Pamphlet 385-63, Range Safety, 16 April 2014
- g. Army Techniques Publication 5-19, Risk Management, 14 April 2014
- h. MCoE Regulation 350-19, Range and Terrain Regulation, 01 March 2013
- i. MCoE Policy Memorandum 385-6-1, Risk Management, 30 October 2014

2. Document received on 21 August 2015.

3. Concur w/comment.

a. Scenario, paragraph 3, pg. 2. Impulse noise above 140 decibels require double hearing protection for all Soldiers within 16 meters of the gun systems (25mm and .50 cal.).

b. DRAW. Noise hazards are not addressed anywhere in the document.

ATZB-SO

SUBJECT: 5-15th CAV 19D OSUT Live Fire Exercise on Ware Range Scenario and DRAW Review

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

Encl



JILL E. CARLSON
Director, MCoE/USAG Safety

Ware Range, 5-15 CAV (Log # 7-8-15) 4 Aug 2015

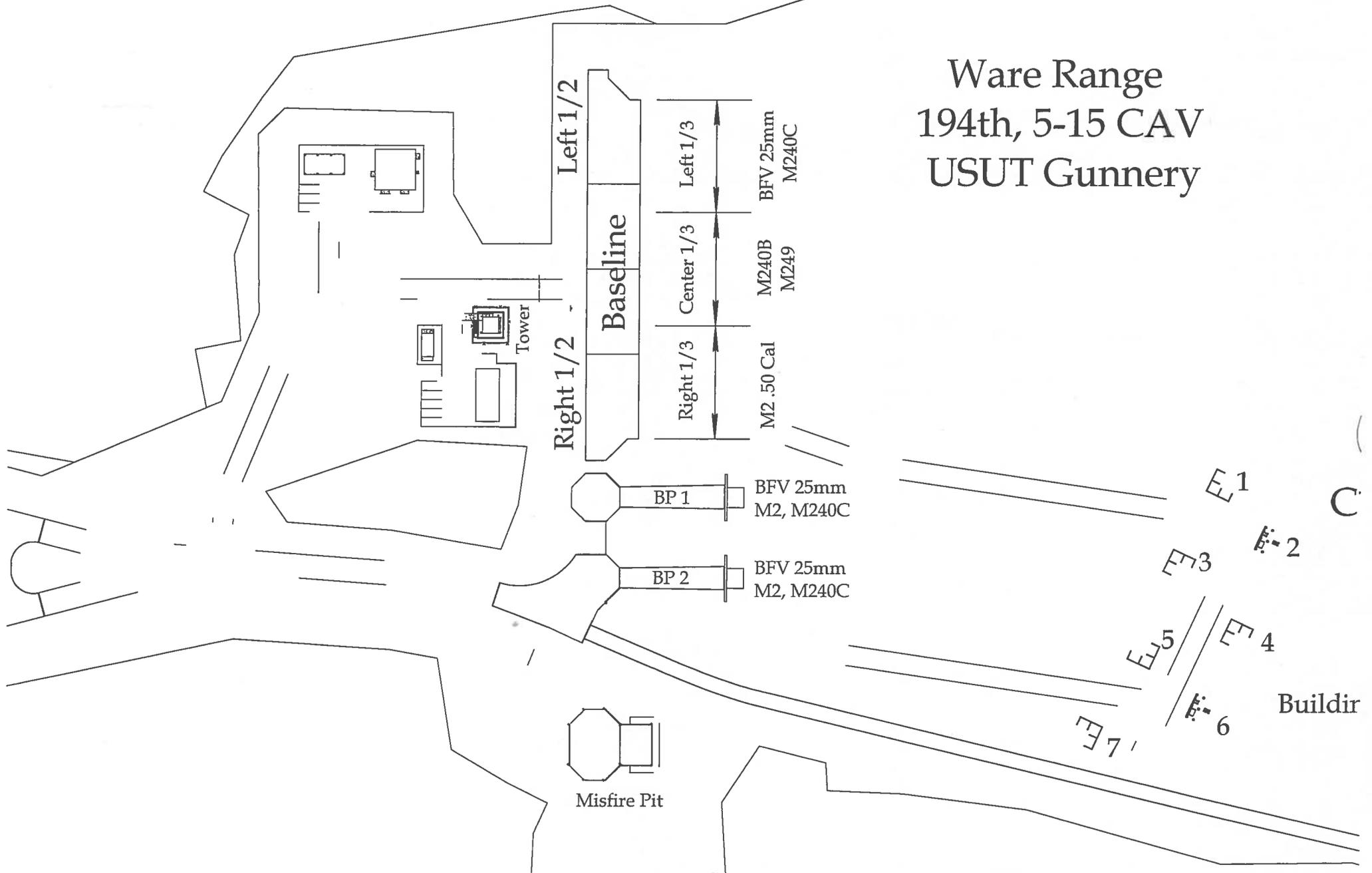
| # | GRID | LOCATION | TYPE | # | GRID | LOCATION | TYPE |
|-------|------------|---|-------|-------|------------|---|-------|
| K-2 | GA 163 883 | Across Box Springs Rd 125m N. of its intersection with Buena Vista Rd. | Gate | K-26 | GA 201 949 | Across Boundry Road 1800m S of its intersection with Turrentine Road | Gate |
| K-3 | GA 153 894 | Across entrance road leading to Concord OP 250m N. of its intersection with Buena Vista Rd. | Gate | K-27 | GA 207 968 | Across Turrentine Rd 600m E. of its intersection with Boundary Rd. | Gate |
| | | | | K-28 | GA 191 885 | Across Whitson Rd 15m W. of its intersection with Cactus Rd. | Gate |
| K-5 | GA 117 920 | Across Shamanski Rd 25m N. of its intersection with Buena Vista Rd. | Gate | K-29 | GA 189 888 | Across un-named trail on left side of Cactus Range 300m W of Cactus Road | Gate |
| K-7 | GA 109 937 | Across Moore Rd 15m N. of its intersection with Bullseye Rd. | Cable | K-30 | GA 190 890 | Across un-named trail on right side of Cactus Range 250m W of Cactus Road. | Gate |
| K-8 | GA 099 947 | Across Bulls Eye Rd 50m E of its intersection with Lorraine Road. | Gate | K-32 | GA 192 915 | Across Shamanski Road 35m W of its intersection with Cactus Rd. | Gate |
| K-9 | GA 103 921 | Across Buena Vista Rd 40m E of the intersection with Moore Rd (Road Guard Location) | Gate | K-36 | GA 163 883 | Across Buena Vista Rd 50m W. of its intersection with Box Springs Rd. (Road guard location). | Gate |
| K-9A | GA 106 919 | Across tank trail 200m W of the Upatoi Creek ford site. | Gate | K-36A | GA 163 882 | Across Tank Trail 50m W. of its intersection with Box Springs Rd. | Gate |
| K-10 | GA 118 920 | Across Buena Vista Rd at K-5 road block. | Gate | K-38 | GA 201 941 | Across unnamed trail 35m W. of its intersection with the east boundary road. Permanently closed. | Gate |
| K-11 | GA 105 927 | Across Moore Rd 20m N. of its intersection with Audernarde Trail. Entrance to Terry Demo Rng. (Road guard location) | Gate | K-39 | GA 202 949 | Across unnamed trail 15m W. of its intersection with the east boundary road. Permanently closed. | Gate |
| K-12 | GA 104 988 | Across Old Lorraine Road 600m S of the tower on Brooks Range. | Gate | K-40 | GA 174 908 | Across Box Springs Rd 30m S. of Pine Knot Creek. | Gate |
| K-13 | GA 112 943 | Across Moore Rd 680m N. of its intersection with Bullseye Rd. | Gate | K-41 | GA 192 944 | Across Kennesaw Trail 30m W. of its intersection with Box Springs Rd. | Gate |
| K-14 | GA 113 998 | Across Moore Rd 10m S. of its intersection with Lorraine Rd. | Gate | K-42 | GA 193 944 | Across Box Springs Rd 10m N. of its intersection with Cactus Rd. | Gate |
| K-15 | GA 114 999 | Across course road leading out of Ruth Range 50m E. of its intersection with Moore Rd. | Gate | K-43 | GA 203 978 | Across the northern boundary range road approx 20m N-W. of the old Hastings Range upper baseline. | Gate |
| K-16 | GB 190 003 | Across Rinehart Rd 130m W. of its intersection with Box Springs Rd. | Gate | K-44 | GA 113 955 | Across Moore Rd on the N. side of Carmouche Range maneuver box. | Gate |
| K-16A | GA 172 989 | Across Rinehart Rd 20m S. of its intersection with the northern boundary range road. | Gate | K-45 | GA 115 961 | Across Moore Rd 300m S. of its intersection with the old Ware Range course road. | Gate |
| K-16B | GA 171 990 | Across un-named trail 20m S. of its intersection with the northern boundary range road. | Gate | K-46 | GA 119 979 | Across Moore Rd 725m S. of its intersection with Americo Trail | Gate |
| K-17 | GB 116 013 | Across unnamed trail 15m E. of Moore Rd and 300m N. of Ruth Range tower. | Gate | K-47 | GA 176 963 | Across Turrentine Rd 1000m W. of mover 4 on Hastings Range | Gate |
| K-19 | GB 121 023 | Across unnamed trail 220m N-E. of Oscar Range Complex Road and 30m S of the northern boundary range road. | Gate | K-50 | GA 195 988 | Across Box Springs Rd 60m N. of its intersection with the northern boundary range road. | Cable |
| K-20 | GB 141 021 | Across unnamed trail 550m S of the northern boundary range road. | Cable | O-9 | GA 101 962 | Across unnamed trail 10m E of its intersection with Lorraine Rd. | Gate |
| K-21 | GB 139 027 | Across the northern boundary range road Aprox 250m East of Cox Creek bridge. | Gate | O-18 | GA 093 979 | 800m N of Ware Rng Entrance on right side of Lorraine Rd | Gate |

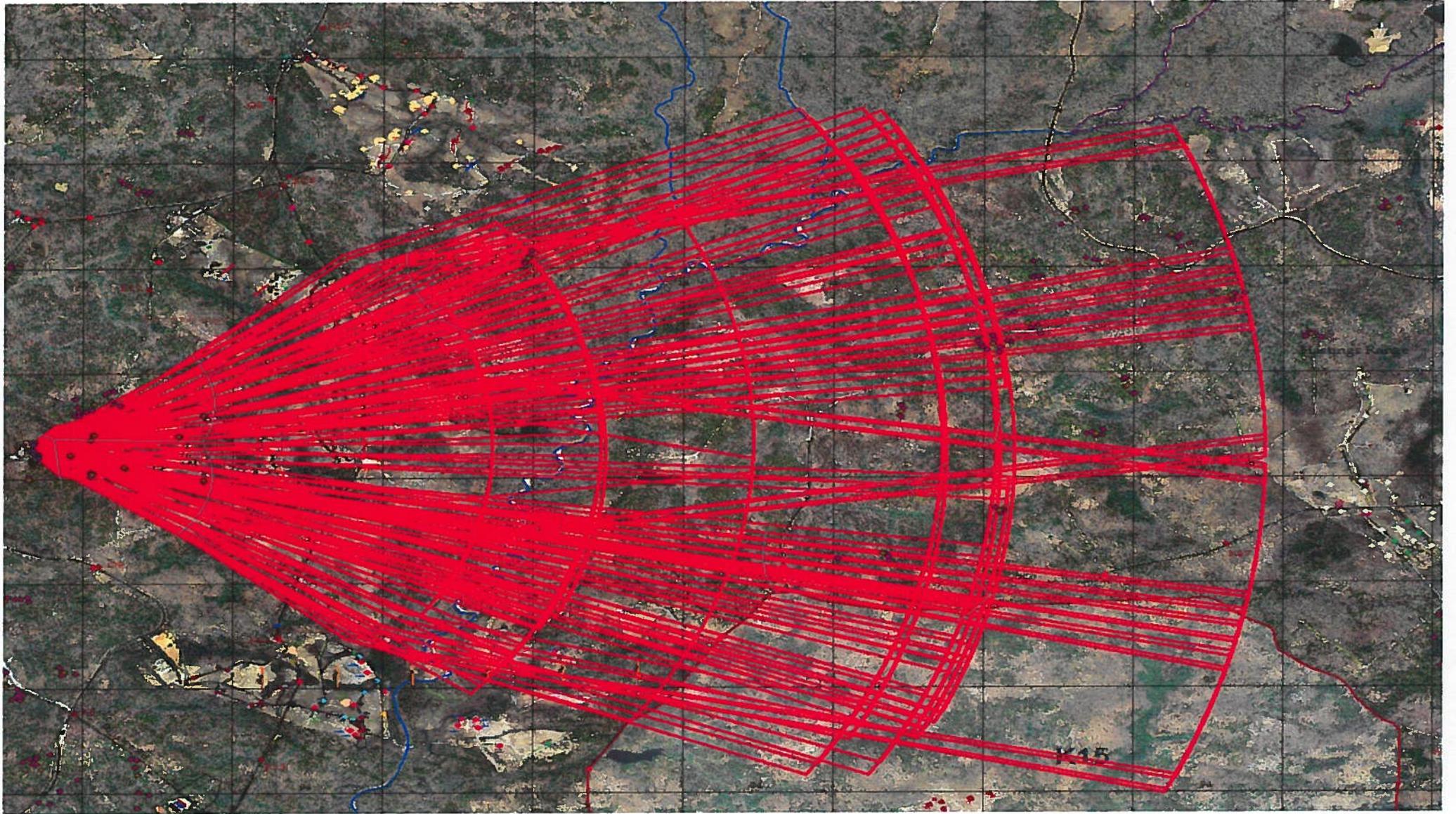
Ware Range



Ware Range

Ware Range
194th, 5-15 CAV
USUT Gunnery





WARNING



25mm gun cook-off could kill or injure soldiers. If gun is hot, do not inspect feeder, remove round, or recycle gun. All soldiers must leave vehicle for 30 minutes before corrective action. Driver must not exit through driver's hatch.



Noise from vehicle or weapons could damage hearing of soldiers in or near vehicle. Use earplugs and other hearing protectors when vehicle or gun is operated. Read warning in front of manual.

CAUTION

Gun will jam when links collect in plenum. Clear plenum after firing 50 to 100 rounds when vehicle is stationary.

NOTE

25mm gun barrel is considered hot enough to cause cookoff if 100 rounds have been fired in 15 minutes.

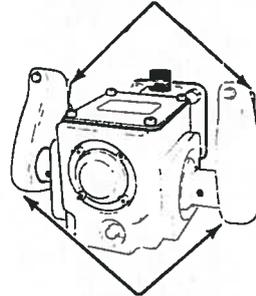
If 25mm gun has been uploaded, pulling trigger switch will result in misfire. This is normal because no round was put into feed rotor during uploading. Use misfire procedure for first cycle. 25mm gun should fire on second cycle.

33. FIRE 25MM GUN AT TARGET.

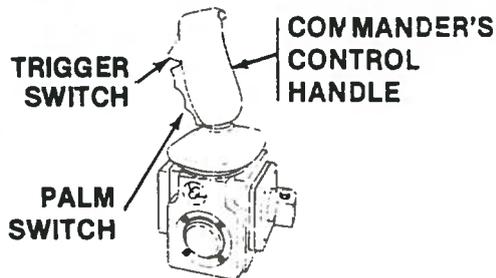
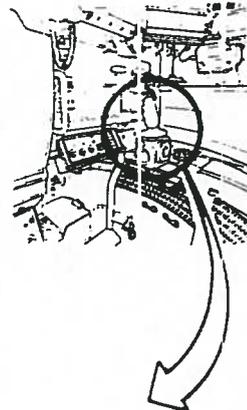
- a. Squeeze trigger switches on gunner's control handles or palm and trigger switches on commander's control handle.



TRIGGER SWITCHES



GUNNER'S CONTROL HANDLES





WARNING

Noise from vehicle or weapons can damage hearing of soldiers in vehicle. All personnel in vehicle **MUST WEAR DOUBLE HEARING PROTECTION** when gun or vehicle is operated. Hearing protection devices must be properly worn to provide effective protection.

If **DOUBLE HEARING PROTECTION** is not worn, the safe level of noise exposure will be exceeded in a short time. Hearing loss occurs gradually. Each noise exposure that exceeds the ear protection guidelines below will cause a temporary hearing loss. Over time, the loss in hearing will become permanent. Plan each day's operation, and be sure all crew and riders have the required ear protectors. Spare earplugs must be available.

DEFINITIONS:

DH-132 — The "tankers helmet," also called "CVC" helmet. Must be in good condition, with liner and earcups fitted tightly, and chin strap worn at all times.

EARPLUGS — Only standard issue earplugs are acceptable. All of the dismounted squad soldiers must be trained in how to use them. Since they may be removed and lost, spares must be carried.

H-251 HEADSET — The listen-only headset provided for the dismounted squad while in the vehicle.

DOUBLE HEARING PROTECTION — Use of two hearing protection devices at the same time. For this vehicle, use earplugs with either the DH-132 helmet or the H-251 headset.

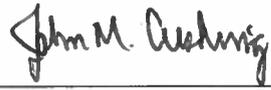
11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

OIC, RSO, NCOIC Master Gunner, Cadre, Drill Sergeants, and Tank Commanders will ensure that the live-fire exercise meets the commanders intent and that all controls and measures are set in place to facilitate a safe and productive training environment.

Note 1: FM 3-20.21, BDE Range Operations SOP, TM 9-2350-264-10-(1,2 and 3) with all changes, GTA 5-8-12, safety brief.

Note 2: OIC, RSO, NCOIC, Master Gunner, Cadre, Drill Sergeants, Tank Commanders and individuals on the range.

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK Approve Disapprove

| | | | |
|--|----------------------|-------------------------------|---|
| a. Name (Last, First, Middle Initial) | b. Rank/Grade | c. Duty Title/Position | d. Signature of Approval Authority |
| John M. Cushing | COL | Brigade Commander |  |

e. Additional Guidance:

| Risk Assessment Matrix | | Probability (expected frequency) | | | | |
|---|------------|--|---|--|--|---|
| | | Frequent: Continuous, regular, or inevitable occurrences | Likely: Several or numerous occurrences | Occasional: Sporadic or intermittent occurrences | Seldom: Infrequent occurrences | Unlikely: Possible occurrences but improbable |
| Severity (expected consequence) | | A | B | C | D | E |
| Catastrophic: Mission failure, unit readiness eliminated; death, unacceptable loss or damage | I | EH | EH | H | H | M |
| Critical: Significantly degraded unit readiness or mission capability; severe injury, illness, loss, or damage | II | EH | H | H | M | L |
| Moderate: Somewhat degraded unit readiness or mission capability; minor injury, illness, loss, or damage | III | H | M | M | L | L |
| Negligible: Little or no impact to unit readiness or mission capability; minimal injury, loss, or damage | IV | M | L | L | L | L |
| Legend: EH - Extremely High Risk H - High Risk M - Medium Risk L - Low Risk | | | | | | |

13. RISK ASSESSMENT REVIEW *(Required when assessment applies to ongoing operations or activities)*

| a. Date | b. Last Name | c. Rank/Grade | d. Duty Title/Position | e. Signature of Reviewer |
|---------|--------------|---------------|------------------------|--------------------------|
| | | | | |
| | | | | |
| | | | | |

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS

Instructions for Completing DD Form 2977, "Deliberate Risk Assessment Worksheet"

1. Mission/Task Description: Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted.

2. Date (DD/MM/YYYY): Self Explanatory.

3. Prepared By: Information provided by the individual conducting the deliberate risk assessment for the operation or training.
Legend: **UIC** = Unit Identification Code; **CIN** = Course ID Number; **OPORD** = operation order; **DSN** = defense switched network; **COMM** = commercial

4. Sub-task/Sub-Step of Mission/Task: Briefly describe all subtasks or substeps that warrant risk management.

5. Hazard: Specify hazards related to the subtask in block 4.

6. Initial Risk Level: Determine probability and severity. Using the risk assessment matrix (page 3), determine level of risk for each hazard specified. probability, severity and associated Risk Level; enter level into column.

7. Control: Enter risk mitigation resources/ controls identified to abate or reduce risk relevant to the hazard identified in block 5.

8. How to Implement / Who Will Implement: Briefly describe the means of employment for each control (i.e., OPORD, briefing, rehearsal) and the name of the individual unit or office that has primary responsibility for control implementation.

9. Residual Risk Level: After controls are implemented, determine resulting probability, severity, and residual risk level.

10. Overall Risk After Controls are Implemented: Assign an overall residual risk level. This is equal to or greater than the highest residual risk level (from block 9).

11. Supervision Plan and Recommended Course of Action: Completed by preparer. Identify specific tasks and levels of responsibility for supervisory personnel and provide the decision authority with a recommend course of action for approval or disapproval based upon the overall risk assessment.

12. Approval/Disapproval of Mission/Task: Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan.

13. Risk Assessment Review: Should be conducted on a regular basis. Reviewers should have sufficient oversight of the mission or activity and controls to provide valid input on changes or adjustments needed. If the residual risk rises above the level already approved, operations should cease until the appropriate approval authority is contacted and approves continued operations.

14. Feedback and Lessons Learned: Provide specific input on the effectiveness of risk controls and their contribution to mission success or failure. Include recommendations for new or revised controls, practicable solutions, or alternate actions. Submit and brief valid lessons learned as necessary to persons affected.

15. Additional Comments or Remarks: Preparer or approval authority provides any additional comments, remarks, or information to support the integration of risk management.

Additional Guidance: Blocks 4-9 may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. The addition and subtraction buttons are designed to enable users to accomplish this task.

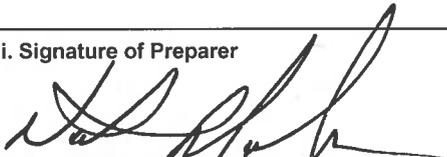
DELIBERATE RISK ASSESSMENT WORKSHEET

| | |
|---|---|
| 1. MISSION/TASK DESCRIPTION 19D OSUT Live Fire Exercise | 2. DATE (DD/MM/YYYY) 30/07/2015 to 29/07/2016 |
|---|---|

3. PREPARED BY

| | | |
|--|-------------------------------------|---|
| a. Name (Last, First Middle Initial) MCNEAL, NATHAN K. | b. Rank/Grade SSG/E-6 | c. Duty Title/Position SQDN MASTER GUNNER |
|--|-------------------------------------|---|

| | | |
|--|---|--|
| d. Unit 5-15 CAV, 194TH AR BDE | e. Work Email nathan.k.mcneal | f. Telephone (DSN/Commercial (Include Area Code)) (706) 626-4123 |
|--|---|--|

| | | |
|---|--|--|
| g. UIC/CIN (as required) W1DXL1 | h. Training Support/Lesson Plan or OPORD (as required) IRHNG-147,IRHNG-142, IRHNR121 | i. Signature of Preparer  |
|---|--|--|

Five steps of Risk Management: (1) Identify the hazards (2) Assess the hazards (3) Develop controls & make decisions
(4) Implement controls (5) Supervise and evaluate (Step numbers not equal to numbered items on form)

| | 4. SUBTASK/SUBSTEP OF MISSION/TASK | 5. HAZARD | 6. INITIAL RISK LEVEL | 7. CONTROL | 8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT | 9. RESIDUAL RISK LEVEL |
|--|------------------------------------|---|-----------------------|---|--|------------------------|
| <input type="checkbox"/> + <input type="checkbox"/> - | | Injuries requiring MEDEVAC with no CASEVAC available. | EH | Wheeled CLS vehicle on site with evacuation route from range to hospital rehearsed. Map with total driving time and graphic overlay. AXP-HLZ and coordination with rotary wing support. Full-up MEDEVAC RXL to be conducted at every live-fire event. | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | H |
| <input type="checkbox"/> + <input type="checkbox"/> - | | Soldiers being hit by a moving vehicle in daylight or hours of limited visibility. | EH | FRAGO light data determines movement technique. Ground guides have a red lens light source during night operations. Cadre maintains awareness of all vehicle movement/speeds. All ground guides will wear reflective vests when moving vehicles. | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | H |
| <input type="checkbox"/> + <input type="checkbox"/> - | | Fatricide from students in training conducting day/night engagements with main gun and machine gun. | EH | MG presents all "targetry" for crews to properly identify during operations. OIC designates targetry during operations. Cadre verifies targets acquired prior to engaging with weapon system. | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | H |

| | 4. SUBTASK/SUBSTEP OF MISSION/TASK | 5. HAZARD | 6. INITIAL RISK LEVEL | 7. CONTROL | 8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT | 9. RESIDUAL RISK LEVEL |
|--|---|---|---|---|--|--|
| <input type="checkbox"/> + <input type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/> - <input type="checkbox"/> + <input type="checkbox"/> - | Students in training engaging targets with M2 .50 caliber HB MG from vehicle mounting hardware. | Misfires, stoppages and runaway guns. | H | One qualified cadre per machine gun. Hearing and eye protection will be worn by all Soldiers. RSO observes all actions and ensures all protective gear is worn. Cadre ensures trainees understand immediate actions in case of any malfunctions. | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | M |
| | | Injury from debris, shrapnel or main gun fires. | H | Minimum live-fire uniform is head, eye and ear protection with prescribed uniform and gloves. Crews rehearse crew evacuation drills. TC takes all commands from the tower NCOIC or MG. | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | M |
| | | Dehydration/hot weather injuries. Cold weather injuries. | H | Ensure all personnel at range know where the water point is and all Soldiers are properly hydrated the day prior to training. Curtail training as needed to the appropriate work/rest ratio determined by the wet bulb. Proper hydration will be maintained. All personnel will be trained on the recognition of hot/cold weather injuries. | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | M |
| | | Ammo fire and flare backs during firing. | H | Cadre will instruct and inspect all crewman on proper wear of uniform. Fire evacuation drills rehearsed. | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | M |
| | | Mounting/dismounting vehicles on the range with/without ammunition. | Exposing body parts to muzzle end of weapons systems. Slips, trips and falls. | M | Soldiers will be briefed on how to enter and exit vehicles. HMMWVs through rear driver side door and exit through rear passenger door. CFV's through rear troop hatch. Vehicle parking brake will be engaged | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) |

| | 4. SUBTASK/SUBSTEP OF MISSION/TASK | 5. HAZARD | 6. INITIAL RISK LEVEL | 7. CONTROL | 8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT | 9. RESIDUAL RISK LEVEL |
|---|---|---|-----------------------|--|---|------------------------|
| + | | Slips and falls on the vehicle | M | When on any vehicle three points of contact will be maintained until completely in a station or dismounted. | How: See Note 1 (Block 11) | L |
| | | | | | Who: See Note 2 (Block 11) | |
| + | | Rolled and sprained ankle. | M | Foot traffic will be restricted to designated paths and roads. Shortcuts through drainage channels are authorized. | How: See Note 1 (Block 11) | L |
| | | | | | Who: See Note 2 (Block 11) | |
| + | | Inclement weather i.e., cold weather, snow, frost, rain, lightning, windstorms and tornadoes. | M | Safety briefs will include inclement weather procedures. Range control reports all warnings to OIC/RSO and they will pass it along to all Soldiers on the range. | How: See Note 1 (Block 11) | L |
| | | | | | Who: See Note 2 (Block 11) | |
| + | Students in training engaging stationary and moving targets with the 25MM main gun. | Round shot out of the impact area. | M | Vehicle commander maintains control of the turret until targets are verified. Cadre will control sectors of fire. | How: See Note 1 (Block 11) | L |
| | | | | | Who: See Note 2 (Block 11) | |
| + | | Crushing, hitting and pinching injuries. | M | Vehicle commanders will ensure all crew members are in proper uniforms with all guards in place and maintain situational awareness throughout all engagements. | How: See Note 2 (Block 11) | L |
| | | | | | Who: See Note 2 (Block 11) | |

| | 4. SUBTASK/SUBSTEP OF MISSION/TASK | 5. HAZARD | 6. INITIAL RISK LEVEL | 7. CONTROL | 8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT | 9. RESIDUAL RISK LEVEL |
|---|--|---|-----------------------|--|---|------------------------|
| + | | Misfire of main gun. | M | Crew conducts rehearsals for misfire procedures. Master gunner will ensure all crews conduct prep to fire checks. | How: See Note 1 (Block 11) | L |
| | | | | | Who: See Note 2 (Block 11) | |
| + | Students in training engaging stationary targets with crew served weapons. | Negligent discharges. | H | Cadre maintains physical control of all ammunition and ensures weapons are on safe before and after engagements. | How: See Note 1 (Block 11) | M |
| | | | | | Who: See Note 2 (Block 11) | |
| + | | Mechanical failures for vehicle and weapons systems. | M | Cadre performs proper PMCS, prep to fire checks and AAC's prior to the start of training. All CFV's zero procedures, and Stryker MGS completes LFAST | How: See Note 1 (Block 11) | L |
| | | | | | Who: See Note 2 (Block 11) | |
| + | | Crushing, hitting and pinching injuries from entering, moving, or firing the vehicle. | M | Cadre will ensure all crew members are in the proper uniforms with all guards in place and maintain situational awareness throughout all engagements. Cadre also ensure turret traverse lock is locked while Soldiers enter the drivers station. | How: See Note 1 (Block 11) | L |
| | | | | | Who: See Note 2 (Block 11) | |
| + | | Cookoff of live round from machine gun could kill or injure Soldiers | H | If machine gun is hot, remove ammo and Soldiers from the area and wait 15 minutes before clearing the weapon system | How: See Note 1 (Block 11) | M |
| | | | | | Who: See Note 2 (Block 11) | |

| | 4. SUBTASK/SUBSTEP OF MISSION/TASK | 5. HAZARD | 6. INITIAL RISK LEVEL | 7. CONTROL | 8. HOW TO IMPLEMENT/ WHO WILL IMPLEMENT | 9. RESIDUAL RISK LEVEL |
|--|------------------------------------|--------------------------------------|-----------------------|--|--|------------------------|
| <div style="display: flex; flex-direction: column; align-items: center; gap: 10px;"> <div style="display: flex; flex-direction: column; align-items: center; gap: 5px;"> <input type="checkbox"/> + <input type="checkbox"/> - </div> <div style="display: flex; flex-direction: column; align-items: center; gap: 5px;"> <input type="checkbox"/> + <input type="checkbox"/> - </div> <div style="display: flex; flex-direction: column; align-items: center; gap: 5px;"> <input type="checkbox"/> + <input type="checkbox"/> - </div> <div style="display: flex; flex-direction: column; align-items: center; gap: 5px;"> <input type="checkbox"/> + <input type="checkbox"/> - </div> <div style="display: flex; flex-direction: column; align-items: center; gap: 5px;"> <input type="checkbox"/> + <input type="checkbox"/> - </div> </div> | | Lightning | H | 1. Suspend all training during electrical storms. 2. Notify Range Control, Troop and Squadron of any lightning related incident. 3. Control the students. 4. Brief students on electrical storm plan and point out location to move to in the event of lightning. | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | M |
| | | Vehicle/Soldier Collision | M | Max 5 mph Ground guides visible in BFV sites Conduct Rollover Drills, TC's up when moving, and account for all SM's | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | L |
| | | Vehicle Rollover | H | Use two ground guides, drivers use safety belts. Only cadre will drive vehicles when loading. | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | M |
| | | Personnel forward of the firing line | M | 1. Leaders maintain accountability of all assigned personnel. 2. When BFV are firing no trucks will occupy the left side of the base | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | L |
| | | Noise Hazard | M | 1. Leaders ensure that all Soldiers have ear protection on the range. 2. All Soldiers within 16m of the gun systems (25mm and .50 cal) will utilize double hearing protection. | How: See Note 1 (Block 11) Who: See Note 2 (Block 11) | L |

10. OVERALL RESIDUAL RISK LEVEL (All controls implemented):

EXTREMELY HIGH

HIGH

MEDIUM

LOW



RECORD OF ENVIRONMENTAL CONSIDERATION REC



EMD Number: 1518302

Project#: N/A

Project Title: 19D OSUT, BFV and Basic Machine Gun, Gunnery Familiarization Fire (FY 16)

Description of Proposed Action:

During daylight and limited visibility hours, given Bradley Fighting Vehicle (BFV), .50 Cal machine gun, 240B machine gun mounted on stationary HMMWV and M249 ground mounted on the M192 LWGM, the AN/PAS13B(V)2. Soldiers will engage troops and truck targets down range utilizing the targets list per range per firing position. There will be no land disturbance. Vehicle drip pans will be used.

Project Location:

Brooks Range, Ware Range, Ruth Range and Carmouche Range

Amount, Description, Location of Disturbance/Digging:

None

Number/Types of Vehicles:

Number of vehicles: 8
Types of vehicles: BFV, HMMWV, Stryker, Stryker MGS

Number of Personnel:

180

Type of Ammunition:

25MM TP-T, .50 Cal Live, 7.62mm Live, 5.56mm Live, 105mm Live

Number/Types of Trees:

None

Types of Aviation:

None

Other Concerns:

This submission is for FY 2016 (01 October 15 thru 30 September 16)

Size of Project Area: Acres

Duration of Action: Start:10/1/2015 Stop:9/30/2016

Proponent: SSG McNeal, Nathan K. 626-4123

Unit, Section or Dept: 5-15 Cav, 194th AB

Decision: Concur with conditions

This Action is adequately covered in the Existing EIS 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."

Training is Approved Starting October 1, 2015-September 30, 2016

Cultural Resources - Archeological

None

Edward Howard (706-545-1898), 7/6/2015

No Comment.

Natural Resources - Wetlands

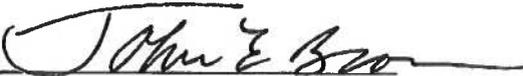
None

Gary Hollon (706-544-7070), 7/9/2015

No Comment.

EMD Number: 1518302 **Project#** N/A

Project Title: 19D OSUT, BFV and Basic Machine Gun, Gunnery Familiarization Fire (FY 16)

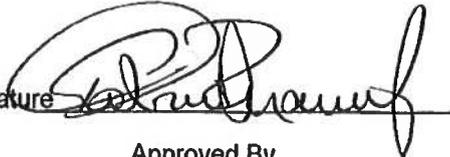
Signature 

Reviewed By

John E Brown

NEPA Program Manager

Date 20 JULY 2015

Signature 

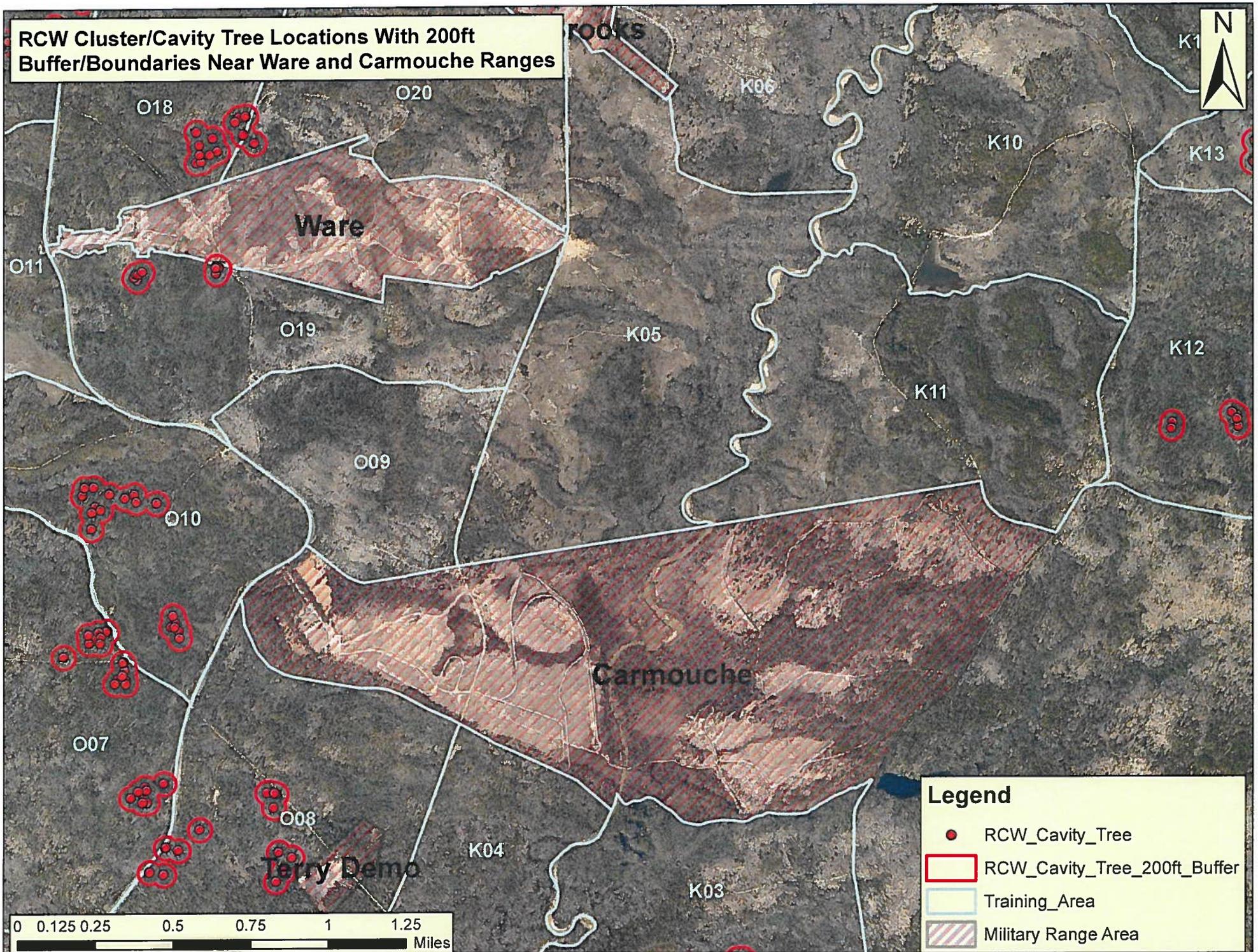
Approved By

Patrick R. Chauvey

EPMB Chief

Date 21 JUL 2015

RCW Cluster/Cavity Tree Locations With 200ft Buffer/Boundaries Near Ware and Carmouche Ranges

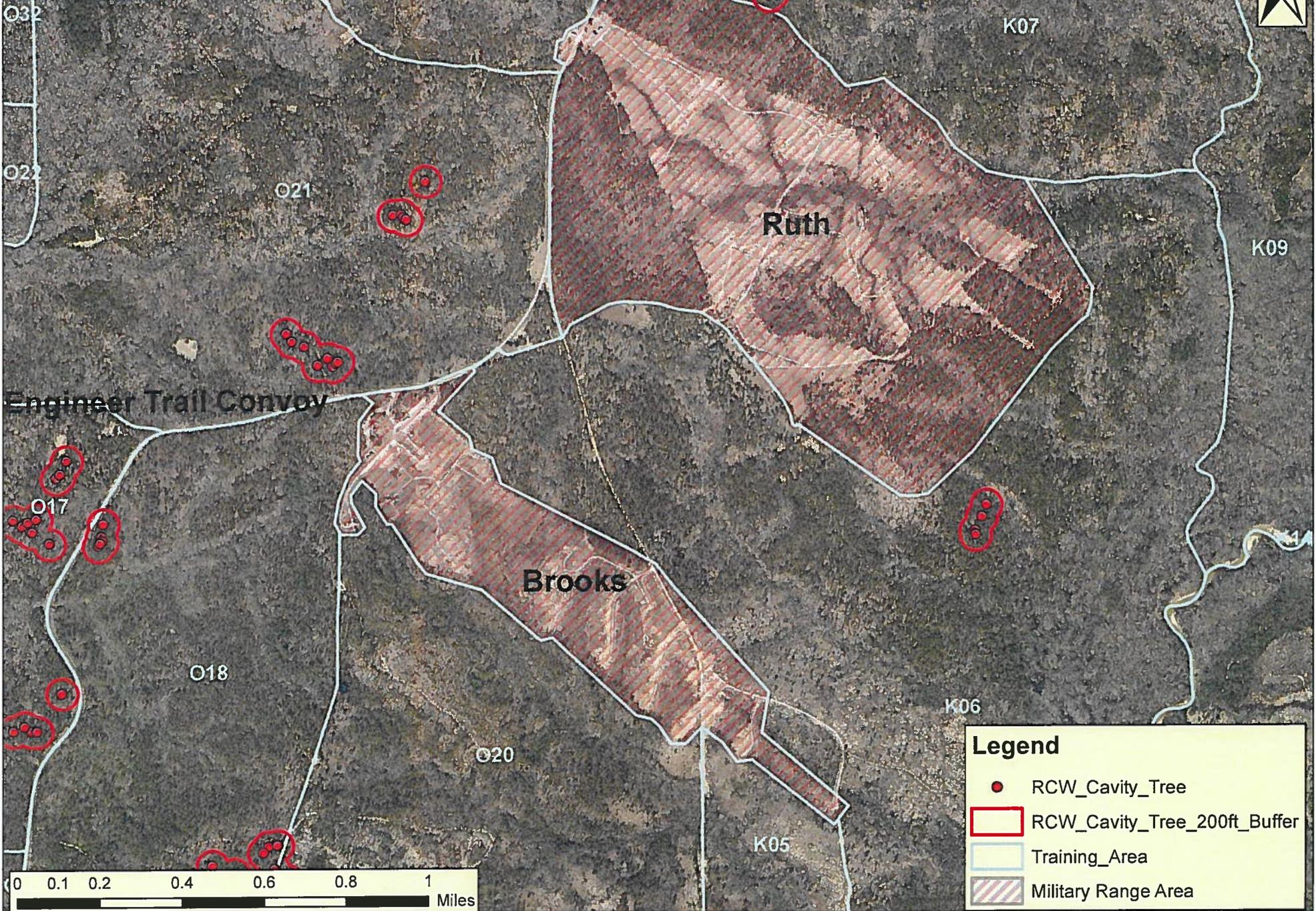


Legend

- RCW_Cavity_Tree
- ▭ RCW_Cavity_Tree_200ft_Buffer
- ▭ Training_Area
- ▨ Military Range Area

0 0.125 0.25 0.5 0.75 1 1.25 Miles

RCW Cluster/Cavity Tree Locations With 200ft Buffer/Boundaries Near Ruth and Brooks Ranges



List of training activities permitted within marked red-cockaded woodpecker (RCW) 200ft buffer zones according to the 2007 Army RCW Guidelines (Department of the Army 2007)

| | ALLOWED |
|---|---------|
| MANEUVER AND BIVOUAC: | |
| Hasty defense, light infantry, hands and hand tool digging only, no deeper than 2 feet, 2 hours MAX | Yes |
| Hasty defense, mechanized infantry/armor | No |
| Deliberate defense, light infantry | No |
| Deliberate Defense, mechanized infantry/armor | No |
| Establish command post, light infantry | No |
| Establish command post, mechanized infantry/armor | No |
| Assembly area operations, light infantry/mechanized infantry/armor | No |
| Establish CS/CSS sites | No |
| Establish signal sites | No |
| Foot transit thru the cluster | Yes |
| Wheeled vehicle transit through the cluster (2) | Yes |
| Armored vehicle transit through the cluster (2) | Yes |
| Cutting natural camouflage, hardwood only | Yes |
| Establish camouflage netting | No |
| Vehicle maintenance for no more than 2 hours | Yes |
| WEAPONS FIRING: | |
| 7.62mm and below blank firing | Yes |
| .50 cal blank firing | Yes |
| Artillery firing point/position | No |
| MLRS firing position | No |
| All others | No |
| NOISE: | |
| Generators | No |
| Artillery/hand grenade simulators | Yes |
| Hoffman type devices | Yes |
| PYROTECHNICS/SMOKE: | |
| CS/riot agents | No |
| Smoke, haze operations only, generators or pots, fog oil and/or graphite flakes (3) | Yes |
| Smoke grenades | Yes |
| Incendiary devices to include trip flares | Yes |
| Star clusters/parachute flares | Yes |
| HC smoke of any type | No |

(List continued). Training activities permitted within marked red-cockaded woodpecker (RCW) 200ft buffer zones according to the 2007 Army RCW Guidelines (Department of the Army 2007).

| DIGGING ALLOWED: | ALLOWED |
|--|---------|
| Tank ditches | No |
| Deliberate individual fighting positions | No |
| Crew-served weapons fighting positions | No |
| Vehicle fighting positions | No |
| Other survivability/force protection positions | No |
| Vehicle survivability positions | No |

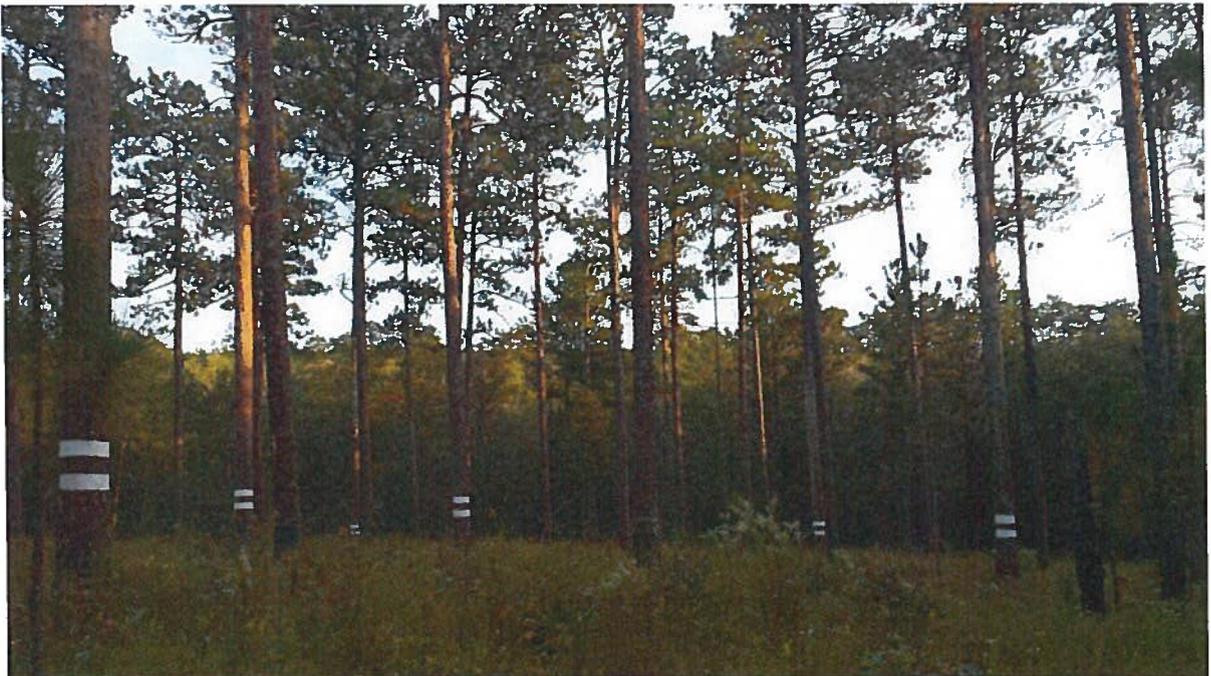
NOTES:

- (1) These training restrictions apply to RCW cavity trees in training areas, but not to cavity trees located in dedicated impact areas.
- (2) Vehicles will not get any closer than 50 feet of a marked cavity tree unless on existing roads, trails or firebreaks.
- (3) Smoke generators and smoke pots will not be set up within 200 feet of a marked cavity tree, but the smoke may drift through the 200 feet circle around a cavity tree.

Red-cockaded Woodpecker (RCW) 200 foot Buffer/Boundary Sign



Red-cockaded Woodpecker (RCW) Cavity Trees (White Banded Trees)



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

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.)

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 field 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**