

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: 24 Feb 2014
Range: Hastings Range
Title: Squad Live Fire, Day/Night
Problem No:

Log #2-2-15

THRU: S3, 3/75 Ranger Battalion

FROM: 3/75 Ranger Battalion
Fort Benning, GA 31905

SECTION I, TYPE OF TRAINING

a. Live Fire b. Non-live Fire CP/Controller Coordinates: 16S GA 1881 9547

SECTION II, DEMOLITIONS/GRENADES/MINES/PYROTECHNICS

Coordinates	Type	Model/DODAC	Size of Charges
See Weapon & Ammo Enclosure	See Weapon & Ammo Enclosure	See Weapon & Ammo Enclosure	N/A

SECTION III, WEAPONS/AMMUNITION REQUESTED

Coordinates of Weapons Position	Type Weapon/Model Number	Type Ammunition	Left Limit	Right Limit
See Weapon & Ammo Enclosure	See Weapon & Ammo Enclosure	See Weapon & Ammo Enclosure	See Weapon & Ammo Enclosure	See Weapon & Ammo Enclosure

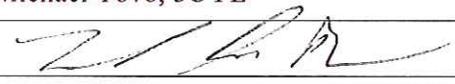
SECTION IV, LIVE FIRE EXERCISES Attach the following:

SECTION V, NON-LIVE FIRE TRAINING

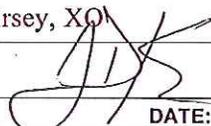
- Scenario of training to be conducted:
- Sketch of area:
- Risk Assessment:
- Attach FB Form 350-19-2-E-R if Mortar or artillery is being fired:

- 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:
ILT Michael Tovo, 3C PL



Name/rank of Major Unit S3/Commander:
MAJ Jim Keirse, XO



SECTION VI, FOR RANGE DIVISION USE

DATE: 24 Feb 2015

TO: S-3, 3/75 Ranger Battalion
Fort 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: **25 FEB 17**

See roadblock enclosure

Requires 15 degree waiver to execute this packet

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



Hastings Range 3/75th Ranger Regiment Squad Live Fire Exercise (Log #2-2-15) Weapons/Ammunition Enclosure, Feb 25, 15 (Page 1 of 1)

Firing Positions	Weapons	Ammunition	Left Limit of Fire Deg's, Grid Azimuth	Right limit of Fire Deg's, Grid Azimuth
<u>SBF 1:</u> 1858 9557	M249/MK46, M4/M16/MK16 M240/MK48, M320	5.56mm Blank/Ball/Tracer/Link, UTM 7.62mm, Blank/Ball/Tracer/Link, 40mm TP	253	300
<u>SBF 2:</u> 1858 9561	M249/MK46, M4/M16/MK16 M240/MK48, M320	5.56mm Blank/Ball/Tracer/Link, UTM 7.62mm, Ball/Tracer/Link, 40mm TP	258	290
Assault Start: 1853 9552 - 1855 9554 Stop: 1845 9560 - 1847 9562	M4/M16/MK16/M249/MK46 M320	5.56mm Blank/Ball/Tracer/Link, UTM 40mm TP	269	011

NOTES:

LASERS: Various Lasers will be used. Laser warning signs will be in place during use.

AMMO: 5.56mm M855A1 EPR and 7.62mm M80A1 EPR will not be used until final approval is granted. Fuzed Practice Grenades (M69, G918) will be used throughout the LFX.

PYRO: Various smoke grenades, grenade and artillery simulators, star clusters, etc... will be used throughout the LFX.

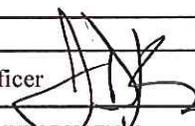
TRANSMITTAL, ACTION AND CONTROL

For use of this form see MCoE Memo 25-52; the proponent is SGS

1. SGS LOG:	2. IN SGS:	3. OUT SGS:	4. DATE PREPARED:
			19 FEB 2015

5. SUBJECT:
Deliberate Risk Assessment Worksheet/Hastings Range

6. ACTION OFFICER/OFFICE SYMBOL/PHONE NUMBER: SSG Quintero, Battalion Land NCO 3/75 545-0499	7. DIRECTOR'S/COMMANDER'S SIGNATURE: MAJ Jim D. Keirse, Battalion Operations Officer
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<input type="checkbox"/> SIGNATURE	<input checked="" type="checkbox"/> APPROVAL	<input type="checkbox"/> INFORMATION
<input type="checkbox"/> SGS	<input type="checkbox"/> DCofS	<input type="checkbox"/> GC CSM
<input type="checkbox"/> USAIS CSM	<input type="checkbox"/> USAARMS CSM	<input type="checkbox"/> MCoE CSM
<input type="checkbox"/> CDID	<input type="checkbox"/> GC	<input type="checkbox"/> CIG
<input type="checkbox"/> CofS	<input type="checkbox"/> SA	<input type="checkbox"/> DCG-NG
<input type="checkbox"/> Comdt, IN School	<input type="checkbox"/> Comdt, AR School	<input type="checkbox"/> CG

1. PURPOSE: 3/75th RR request review and approval of the Deliberate Risk Assessment Worksheet for Log# 2-2-15

2. RECOMMENDATION: Post Safety Office reviews and approves the Deliberate Risk Assessment Worksheet and initials the FB25-52 -1-R-E

3. DISCUSSION:

a. 3/75th RR is requesting the use of packet # 2-2-15, Squad Live Fire Exercise on Hastings Range.

b. Unit understands that the Deliberate Risk Assessment Worksheet must be maintained and on-hand while conducting Squad Live Fire Exercises.

c. Unit will return the packet/Deliberate Risk Assessment Worksheet back to Range Operations for the final signature of approval by the Range Operations Chief (Brad Tesch).

4. THIS DOCUMENT IS AUTHORED BY:

8. COORDINATION/APPROVAL

S:

OFFICE	ACTION	NAME AND DATE	OFFICE	ACTION	NAME AND DATE
Range Ops	Concur	Brad Tesch 25 FEB 15			
Post Safety	Concur w/c	K. Edema 26 FEB 15			

STAFF REMARKS: (Command Group Use Only)	APPROVAL AUTHORITY
	APPROVED:
	DISAPPROVED:
	NOTED:



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

25 February 2015

MEMORANDUM FOR Commander, 75th Ranger Regiment, Attn: SFC Eric Dingman,
6420 Dawson Loop, Fort Benning, GA 31905

SUBJECT: 3-75th RR 3-75th RR Squad Live Fire on Hastings Range CONOP and
DRAW Safety 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, 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

2. Document received on 24 February 2015.

3. Concur w/comment.

a. CONOP, paragraph 5 (Squad Live Fire (DAY LIVE AMMUNITION)), pg 6.
Measures must be implemented ensure that a UTM round is not lodged in the barrel of the weapons prior to using ball ammunition.

b. CONOP, paragraph 5 (Squad Live Fire (NIGHT LIVE AMMUNITION)), pg 7.
Measures must be implemented ensure that a UTM round is not lodged in the barrel of the weapons prior to the use of ting ball ammunition.

ATZB-SO

SUBJECT: 3-75th RR 3-75th RR Squad Live Fire on Hastings Range CONOP and DRAW Safety Review

c. CONOP, paragraph 7, pg 8. Evacuation of all patients from the range complex (Hastings Range) to Martin Army Community Hospital is byway of EMS ambulance.

d. Request that all diagrams contain a legend with scale in the future.

e. DRAW, Block 6 & 9, pg 2. "Injury due to accidental /negligent discharge", recommend that the Initial and Residual Risk Levels be elevated to HIGH and MODERATE. The ingestion of 62-grains of high velocity lead is/can be catastrophic in nature in most cases.

f. DRAW, Block 6 & 9, pg 3. "Vision Restrictions", recommend that the Initial and Residual Risk Levels be elevated to HIGH and MODERATE. At night the eye only uses the rods (black and white vision) and is only capable of 200/20, which is legally blind. The use of night vision devices is the control measure which allows you to see and reduces the risk.

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


WILL E. CARLSON
Director, MCoE/USAG Safety



DEPARTMENT OF THE ARMY
CHARLIE COMPANY, 3d BATTALION, 75TH RANGER REGIMENT
7917 DAWSON STREET, BLDG 2944
COLUMBUS, GEORGIA 31905

REPLY TO
ATTENTION OF:

AORG-TB-CC

10 December 2014

MEMORANDUM FOR Chief, Range Operations, Fort Benning, Georgia 31905

SUBJECT: Memorandum of Instruction for Squad Live Fire at Hastings Range

1. Purpose: This MOI outlines the training plan for Charlie Company during Squad Live Fire Exercise at Hastings Range.
2. References:
 - a. 75th Ranger Regiment Marksmanship RTC 350-10. dtd OCT2006
 - b. RTC 350-1 (75th Ranger Regiment Training Circular). dtd OCT2000
 - c. MCOE Regulation 350-19 Range and Terrain
 - d. FM 3-22.9 (Rifle Marksmanship M16/M4 Series Weapons). dtd AUG2008
 - e. Soldier Manual and Trainers Guide, Warrior Skills Level 1, STP 7-11B24-SMTG. dtd AUG2004
 - f. The Infantry Rifle Platoon and Squad, FM 3-21.8. dtd MAR2007
 - g. Infantry Live Fire Training. TC 7-9. dtd SEP1993
 - h. Soldiers Manual of Common Tasks, Warrior Skills Level 1, STP21-1-SMCT. dtd MAY2011
 - i. Soldiers Manual of Common Tasks, Warrior Skills Levels 2,3, and 4 STP 21-24-SMCT. dtd SEP2008
 - j. Battalion Commander's Policy Letter #7, Conduct of Maneuver Live Fire. dtd FEB2013
3. General: C/3/75 will execute squad live fire at Hastings Range IOT prepare squads for platoon live fire training and combat operations. Each squad will execute the live fire lane under day and night conditions with UTM/Blank certification followed by live iterations. The key to this range is the successful completion of both the day and night iterations. The end state is that all squads can react to contact, execute squad attack, and battle drill five under both day and night conditions.
4. Specific:

Terminal Training Objectives / desired end state: All C Co. Ranger Squads are a "T" on conducting squad attack, knock out a bunker and the associated sub-tasks under day and night conditions and Squad Leaders effectively control the movement of their teams, communicate across the squad, and effectively synchronize organic and non-organic weapons systems and their effects.

 - a. Individual Tasks
 - 1) Move as a member of a Fire Team
 - 2) Move under direct fire
 - 3) Select temporary fighting positions

- 4) Engage targets with an M249/MK46 machine gun
- 5) Engage targets with an M4 or M4A1 carbine
- 6) Engage targets with an M320 grenade launcher
- 7) Control use of night vision devices
- 8) Use visual signaling techniques
- 9) Perform voice communications

b. Leader Tasks:

- 1) Conduct troop leading procedures
- 2) Control movement of a fire team
- 3) Control organic fires
- 4) Develop and communicate a plan
- 5) Conduct PCC/PCI
- 6) Conduct consolidation and reorganization activities

a. Conditions: Given a Ranger Squad with a gun team attached under day and night conditions

b. Task: Successfully assault a known enemy NAI and any associated enemy forces

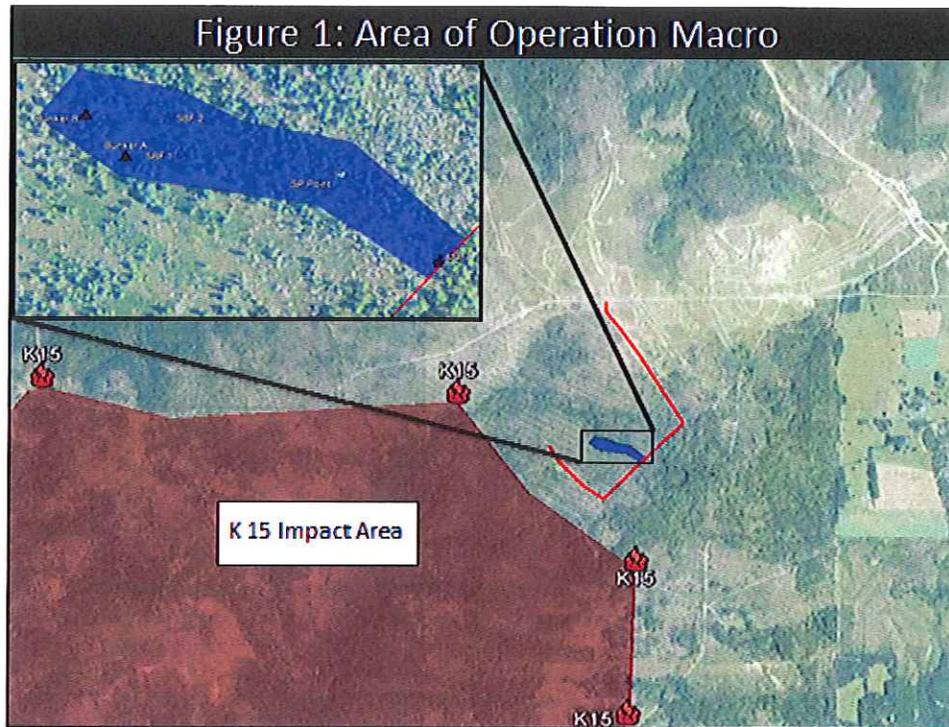
5. Concept of the Operation

PHASE 1 (RESOURCING): This phase will begin with the production of the MOI for the LFX. This phase will include all resourcing, CONOP, MOI, and Risk Assessment production, range preparation, rehearsals, and briefings. Leaders will interface with range operations personnel to ensure that all targets and maneuver boxes are within the surface danger zones for all utilized weapons systems. Leaders will conduct a range walk to verify proper marking and placement of the maneuver boxes and all targets. The key to this phase is rehearsals conducted by the individual squads, and range validation by Battalion leadership. All company and platoon level leaders will conduct a walk with the Battalion Commander IOT validate company leaders for training. This phase will end with the arrival at Hastings for range preparation one day prior to training.

PHASE 2 (RANGE PREPARATION): This phase begins with the arrival of range prep personnel on the preparation day. This phase will include the placement of all targets and range set up, IAW the CONOP sketch. The purpose of this phase is to ensure that the range is completely set up for the initiation of training the following day. Critical to this phase is ensuring the range is ready for use the first day of training; with proper target placement, establishment of the ammo supply point IAW Ft. Benning regulations, and establishment of the administrative area.

PHASE 3 (EXECUTION): An ADVON group of leaders will arrive at the range prior to arrival of the main body IOT begin final range prep and to ensure the range will be opened when the main body arrives. The OIC, RSO, and range safeties will walk the lane one additional time to check for any hazards and to ensure the lane is ready for training. Once the main body arrives all Rangers will receive a range orientation and safety brief from the range OIC and the RSO. Following the safety brief all team leaders and above will move downrange with the OIC and RSO to conduct a range walk explaining the boundaries of the range. After the range walk all Rangers will return the administrative area and prepare their equipment to conduct the lane. Once a squad is ready to conduct the lane the squad leader will be briefed on the tactical situation for the lane by the platoon leader and platoon sergeant. During the execution of the range there will be a minimum of one range safety behind each fire team and the CO/PL/PSG/RSO will supervise the entire squad to ensure all Rangers stay generally on line, fire within limits, and shoot at the

correct targets. Leaders on the range will ensure the squad does not engage or move outside of the designated maneuver box. The risk of Rangers shooting outside of the designated zone will be mitigated by the presence of lane safeties, and the requirement for all range personnel to be present at the walk through to have a complete grasp of the concept and the firing points for each engagement.



SCHEME OF MANUEVER

SP-ENAGEMENT 1

When the Observer Controller team is ready for the first or next squad they will contact the squad leader located IVO the admin area (16S GA 18814 95476) over platoon net and have them forward stage at the lane's start point (16S GA 18724 95546). SQD will begin dismounted movement from the start point and begin movement towards the objective area (IVO 16S GA 1851 9557) on approximately a 280 degree azimuth moving in a fire team wedge, squad column. The squad will move on azimuth, maintaining the correct dispersion for the terrain and vegetation, and using hand and arm signals and radio communications to control movement. The squad will continue until the lead team leader observes the initial enemy bunker position (bunker A 16S GA 18527 95563). Upon observing the bunker the lead team leader will contact his squad leader and report the location of the bunker. The squad leader will then push up and conduct a hasty leaders recon in order to maneuver his gun team into an advantageous position (support by fire 1: 16S GA 18580 95570) from which to engage the bunker. The squad leader will then emplace a base of fire element with the gun team on the support by fire line, and then maneuver his other team through maneuver box A in order to assault the bunker position. From the support by fire position the left limit for engaging bunker A is 253 degrees and a right limit of 276 degrees. After the deliberate emplacement of the support by fire the squad leader will initiate contact on the bunker, unless he does not initiate contact before his element crosses PL Jets, at which point the bunker and pneumatic gun will initiate on the squad. The machine gun team and base of fire element (located at SBF 1) will begin to engage the bunker and target 1A (Target 1A 16S GA 18498 95577) as the maneuver team moves on the bunker. The left limit from support by fire 1 is 253 degrees while firing on bunker A and target 1A, and the right limit is 280 degrees. The start fire line of the assault maneuver box is 16S GA 1853 9552 to 16S GA 1855 9554 with a

left limit of 269 degrees and a right limit of 11 degrees. Once fire superiority is achieved the maneuvering element will continue through the maneuver box and assault bunker A. Once the maneuver element comes within 15 degrees of bunker A from support by fire 1, they will shift fire from the bunker A to bunker B (16S GA 18489 95600) and target B1 (16S GA 18493 95595) in order to allow the maneuver element to assault the bunker A. After the shift fire the left limit of support by fire 1 is 280 degrees, and the right limit is 300 degrees (for the engagement of bunker B and target 1B). Bunker A targets will hit and bob until the base of fire element shifts and then lifts fire. Then the squad leader will give the order for that team to assault through the objective.

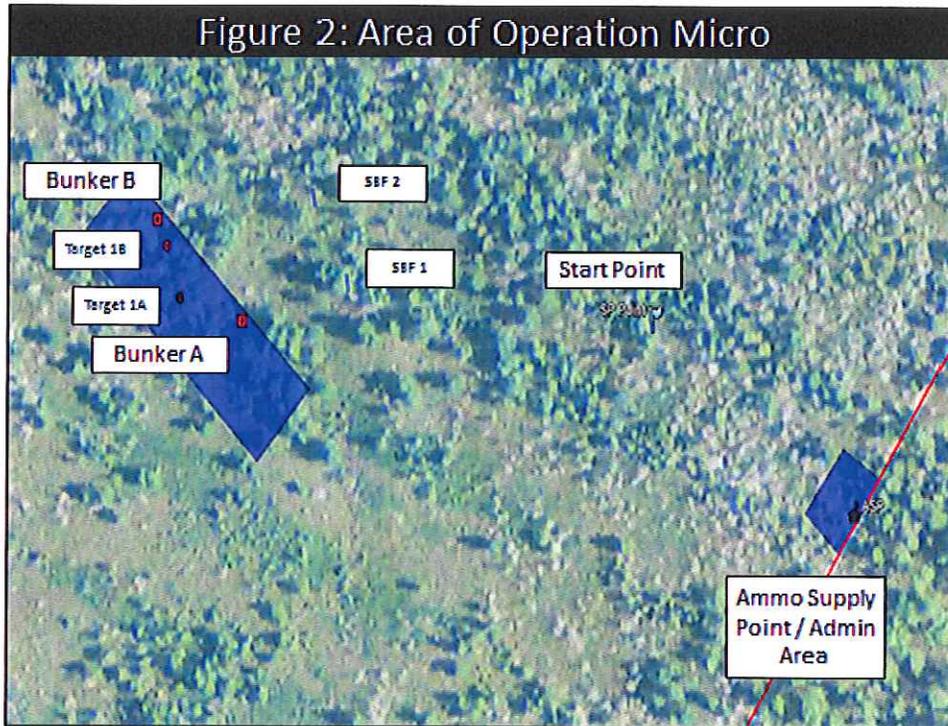
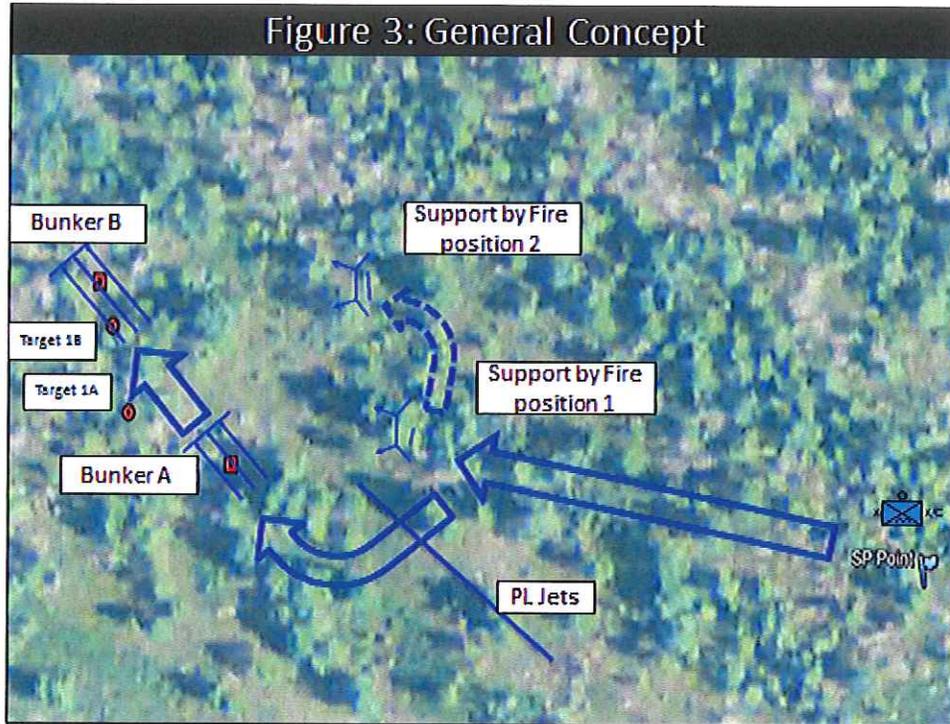
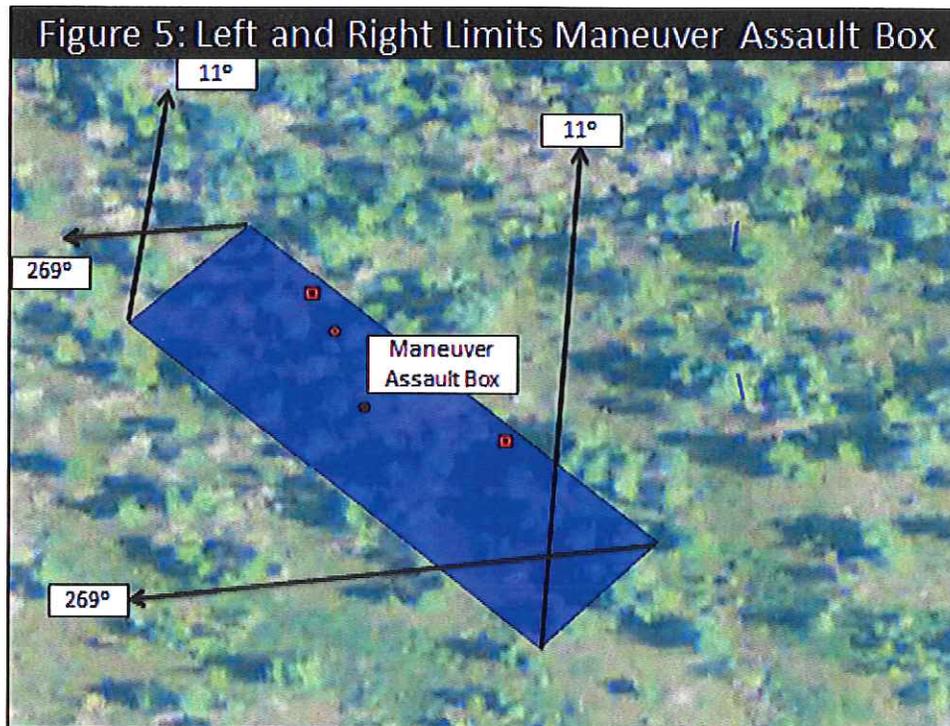
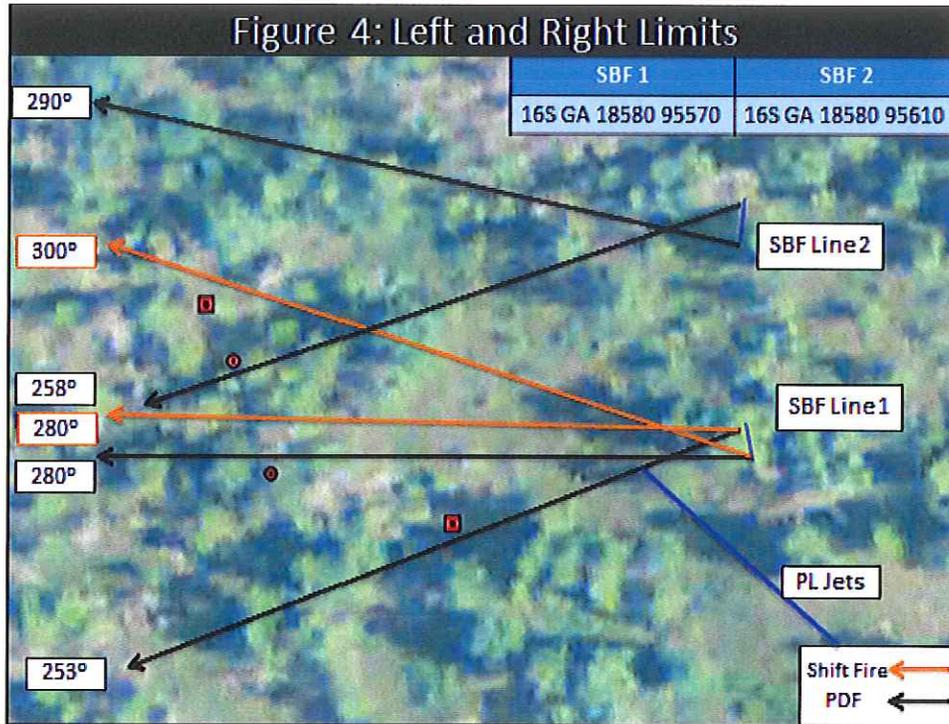


Figure 3: General Concept



ENGAGEMENT #2

After the lead team has cleared bunker alpha they will begin to conduct hasty consolidation and reorganization activities. During the squads consolidation and reorganization activities IVO bunker A reinforcement targets will appear, consisting of a single man fighting position and an additional bunker ~50 meters past bunker A. The squad leader will then decide to stay IVO of bunker A or he will displace his support by fire element to support by fire position 2 (16S GA 18580 95610) in order to gain fire superiority on the bunker with his most casualty producing weapon system. The support by fire element (SBF 2) will engage target 1B and bunker B with a left limit of 258 degrees and a right limit of 290 degrees. Target 1B (16S GA 18493 95595) will require 10 hits before falling. The squad leader will then maneuver on the second bunker, once the maneuver element is 15 degrees from target 1B the support by fire element will shift and then lift fire enabling the maneuver element to assault bunker bravo. The maneuver element will not move past the stop fire line (16S GA 18450 95600 to 16S GA 18470 95620). Upon clearing bunker bravo and the one man fighting position the squad leader will set up in a defensive position and report the contact to higher. After the radio call to platoon leadership and successful consolidation and reorganization the head Observer/Controller will end the exercise.



Squad Live Fire (DAY LIVE AMMUNITION)

After completion of the day UTM/blank iteration range safeties will check each Ranger to ensure they have no UTM/blank ammunition on their kit, person, or magazines. Rangers will be checked to ensure they remove their UTM bolts / blank firing adapters. When all Rangers have been checked they will load live ammunition and repeat the lane in the same manner as the blank iteration. Rangers will also be briefed not to pick up any foreign objects while on the lane (i.e. magazines, ammunition) and safeties will ensure compliance.

Squad Live Fire (NIGHT UTM/BLANK AMMUNITION)

After completion of the day live ammunition iterations range safeties will check each Ranger to ensure they have no live ammunition on their kit, person, or magazines. Rangers will be checked to ensure they re-attach their UTM bolts / blank firing adapters. When all Rangers have been checked they will load UTM/blank ammunition. Rangers will also be briefed not to pick up any foreign objects while on the lane (i.e. magazines, ammunition) and safeties will ensure compliance. Rangers will then repeat the lane under night conditions.

Squad Live Fire (NIGHT LIVE AMMUNITION)

After completion of the night UTM/blank iterations range safeties will check each Ranger to ensure they have no UTM/blank ammunition on their kit, person, or magazines. Rangers will be checked to ensure they remove their UTM bolts / blank firing adapters. When all Rangers have been checked they will load live ammunition. Rangers will also be briefed not to pick up any foreign objects while on the lane (i.e. magazines, ammunition) and safeties will ensure compliance. Rangers will then repeat the lane in the same manner as the night UTM/blank.

Leader Focus: Team Leaders will focus on the ability of their Rangers to quickly and accurately engage the enemy upon first contact and to fire and move within buddy team into positions adequate to place accurate fire on enemy positions. Squad Leaders will focus on C2 of their teams, integration of organic and non-organic fires assets, and the synchronization of those fires.

PHASE 4 (RECOVERY): This phase will begin at the conclusion of the last day of training. This phase will include recovery of the range, final after action reviews, recovery, and maintenance of weapons and equipment. The key to this phase is 100% accountability of all equipment and sensitive items.

6. Support Requirements:

1) **Classes of Supply:**

- 1) *CL I (Chow / Water): 1x Water Buffalo*
- 2) *CL II (Expendables):*
- 3) *CL III (POL):*
- 4) *CL IV (Construction Materials): 200 sandbags, 5 4'x4'Sheets 3/4" plywood (not including bunker construction)*
- 5) *CL V (Ammo): See Enclosure*
- 6) *CL VII (Major End Items):*
- 7) *CL VIII (Medical): CLS/Aid bags internal, FLA*
- 8) *CL IX (Batteries / Repair Parts):*
- 9) *Other: 1x Ranger for HQ to operate Targetry, 1x GP medium for cover / sleeping*

2) **Transportation:** Company Bus (Pax), 2x LMTV's

3) **Range Build-UP Plan:** All targets will be placed by range detail. An ammo NCO will establish a field ASP on Hastings Range IAW Fort Benning and MCOE regulations. Immediately after the arrival at the ASP all blank, UTM, and live ammunition will be separated. The ASP will be run and maintained by a designated NCO and all ammunition will be signed out from the ammo NCO for each platoon. The ASP will be established on the first day of the training week and will be constantly occupied until the completion of all of the company's training.

- 4) **Break Down and Land Clearing Procedures:** Once training is complete at the end of the training week each platoon will provide approximately ten Rangers to support clearing of the range. The detail will police up all brass and dunnage, break down the targetry, and clean the general training area.
- 5) **Ammo Supply Point (ASP):** Will be located at 16S GA 18814 95476. Ammunition will be kept covered and will be separated by blank, UTM, and live ammunition. A certified ammunition handler will be present at all times and will be responsible for the distribution of ammunition to the platoons on their day of execution. All dunnage will be consolidated at the ASP until the last day of training. After training has been completed for the company the cleaning detail will breakdown the ASP and backhaul any live ammunition and dunnage in accordance with MCOE regulations.

7. Medical Support Plan: One covered, dedicated medical vehicle will remain on the range for the duration of training. The vehicle will be located near the staging/administrative area and ASP IVO 16S GA 18814 95476. One Medic will be located with the vehicle at all times while conducting live-fire training. The company medic or other assigned medic will be the primary caregiver in case of any injuries on the lane. The ground evacuation plan will be use of the medical vehicle to Martin Army Community Hospital. FM radio will be on C Company frequency and range brick will be on the main range operations alpha base net and both radios will be manned at all times. In the event of injury, Rangers will cease fire, call 911, and notify range operations alpha base as well as higher headquarters and begin the evacuation of the casualty to Martin Army Community Hospital.

8. Communications Plan: FM (117G) and range brick will be manned at all times. The OIC will carry the range brick for primary communication with range operations alpha base. Each leader (TL and above) will carry an MBITR. Individual Rangers will carry team radios for communication during the execution of their lane. Lane safeties and OIC/RSO will remain on Company Command and Platoon nets, the executing squad will remain on the Platoon internal frequency, and the 117G at the ASP will remain on Company Command.

9. Preparation Training: Before arriving to conduct the squad live fire platoons will have zeroed and qualified on their assigned weapons systems under both day and night conditions. Squads will also have conducted team live fire exercise two weeks prior to the squad live fire execution. Before conducting squad live fire squads should conduct refresher training on: squad react to contact, squad attack, battle drill five, and conduct squad live fire rehearsals.

10. Concurrent Training / Tasks:

- 1) Battle Drill 5a: Knock out a Bunker
- 2) React to near ambush / react to contact
- 3) Marksmanship fundamentals

11. Safety Plan: IAW 350-1-2 the principals of safe weapons handling will be followed at all times on the range, during both blank, UTM, and live iterations. Rangers must be aware of their fellow Rangers positions in relation to their own while assaulting enemy positions. Any movements left, right or rear and potentially into another Ranger's line of fire, must be clearly communicated and understood before execution. Range safeties will stop any unsafe or potentially unsafe acts. In the event of any incident on the range, medical or otherwise, Rangers will cease fire and notify range operations alpha base as well as higher headquarters. Rangers will keep all weapons oriented down range and will only take their weapons off safe when engaging targets. Range safeties will ensure Rangers fire only at approved targets and stay within the approved maneuver box. Range safeties and leaders will clear all Rangers on and off the range and will inspect all Rangers for blank, UTM, and live ammunition before and after all iterations. LASERS: Class III A lasers are not eye safe 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. Ranger safety briefing will include hazards using Lasers and NVD's and lane safeties will stop any potentially dangerous actions with lasers. If possible additional targets will be drawn from range operations in order to orient certain targets that will be engaged by both the maneuver and assault element so that there will not be issues of elements engaging targets no longer intended for them. For example target 1A will initially be a target engaged by support by fire 1, after SBF 1 shifts fire that target will be engaged by the maneuver element. So in order to ensure that personnel from support by fire 1 do not fire at target 1A after they have shifted fire there will be one hit and bob target on the target 1A spot oriented towards the support by fire and one oriented towards the maneuver element. This target discipline is also one of the training points of the lane, and there will be safeties in order to ensure that Rangers do not fire outside of their lane.

Communications: Unit will maintain continuous contact with range operations alpha base at all times through use of the range brick. If communications are lost the unit will go into a self-induced check fire until communications are restored. The platoon will also maintain communications with company CQ desk using a 117G on the company frequency.

Incident: When an incident occurs on the range, regardless of injury or not, the OIC/RSO will immediately call as cease fire and report it to range operations alpha base and higher headquarters. The OIC/RSO will take action as directed by range operations alpha base. The cease fire will remain in effect until the problem is resolved and cleared through alpha base. If the incident results in an injury, the OIC/RSO will use the procedures outline in the medical paragraph. The following information will be furnished by the OIC/RSO to range operations alpha base:

- a. Designation of unit
- b. Range and location
- c. Type of weapon involved
- d. Type of ammunition involved
- e. Brief summary of what happened
- f. Personnel injuries and extent
- g. Full Name, SSN, Rank and unit of injured personnel
- h. Extent of property damage
- i. Intentions regarding an AR 15-6 investigation

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 marked appropriately. Range operations alpha base will be notified in this event. The cease fire will remain in effect until cleared through alpha base.

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

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

Rehearsals: The “Crawl, Walk, Run” method of training will be the standard for all LFX. A detailed leader’s TEWT will outline all range fans, restrictions, and safety considerations. Day/night dry-blank fire exercise will be conducted prior to getting clearance to participate in any live fire exercises (LFX’s). The day phase will be completed prior to the night phase. The dry-fire, blank-fire exercise and the live fire exercise will have dedicated observer/controller teams.

Signals: Primary means of signaling shift/lift/cease fires will be FM communications. Alternate signal will be colored smoke/star cluster/VS-17, or hot rock. Company Leadership will be with each element to confirm receipt of signals by tactical radios. Emergency cease fire signal will be RED SMOKE / Air horn held by the support by fire’s and maneuver element’s observer / controller teams. All signals will be included in the initial safety briefing and all changes to the signals plan will be briefed. Everyone is a safety and anyone observing any unsafe acts can and will call a cease fire at any time.

12. The point of contact for this memorandum is the Charlie Company 3rd Platoon Leader, 1LT Michael Tovo, available at 706-545-7643 or michael.tovo@soc.mil.



MICHAEL K. TOVO
1LT, IN
Platoon Leader

Enclosures

1. General Timeline
2. Risk Management Worksheet
3. Ammo Requested
4. 15 Degree Waiver
5. Figure 1: Area of Operations Macro
6. Figure 2: Area of Operations Micro
7. Figure 3: General Concept
8. Figure 4: Left and Right Limits
9. Figure 5: Left and Right Limits Maneuver Assault Box

Hastings Range 3/75th Ranger Regiment Squad Live Fire Exercise (Log #2-2-15) Target & Weapon Positions

Firing Positions	Bunker Positions	Target Positions
<u>SBF 1:</u> 18580 95570	<u>Bunker A:</u> 18527 95563	<u>Target 1A:</u> 18498 95577
<u>SBF 2:</u> 18580 95610	<u>Bunker B:</u> 18489 95600	<u>Target 1B:</u> 18493 95595
<p style="text-align: center;">Assault</p> <p>Start: 18530 95520 - 18550 95540 Stop: 18445 95605 - 18465 95625</p>		

Figure 1: Area of Operation Macro

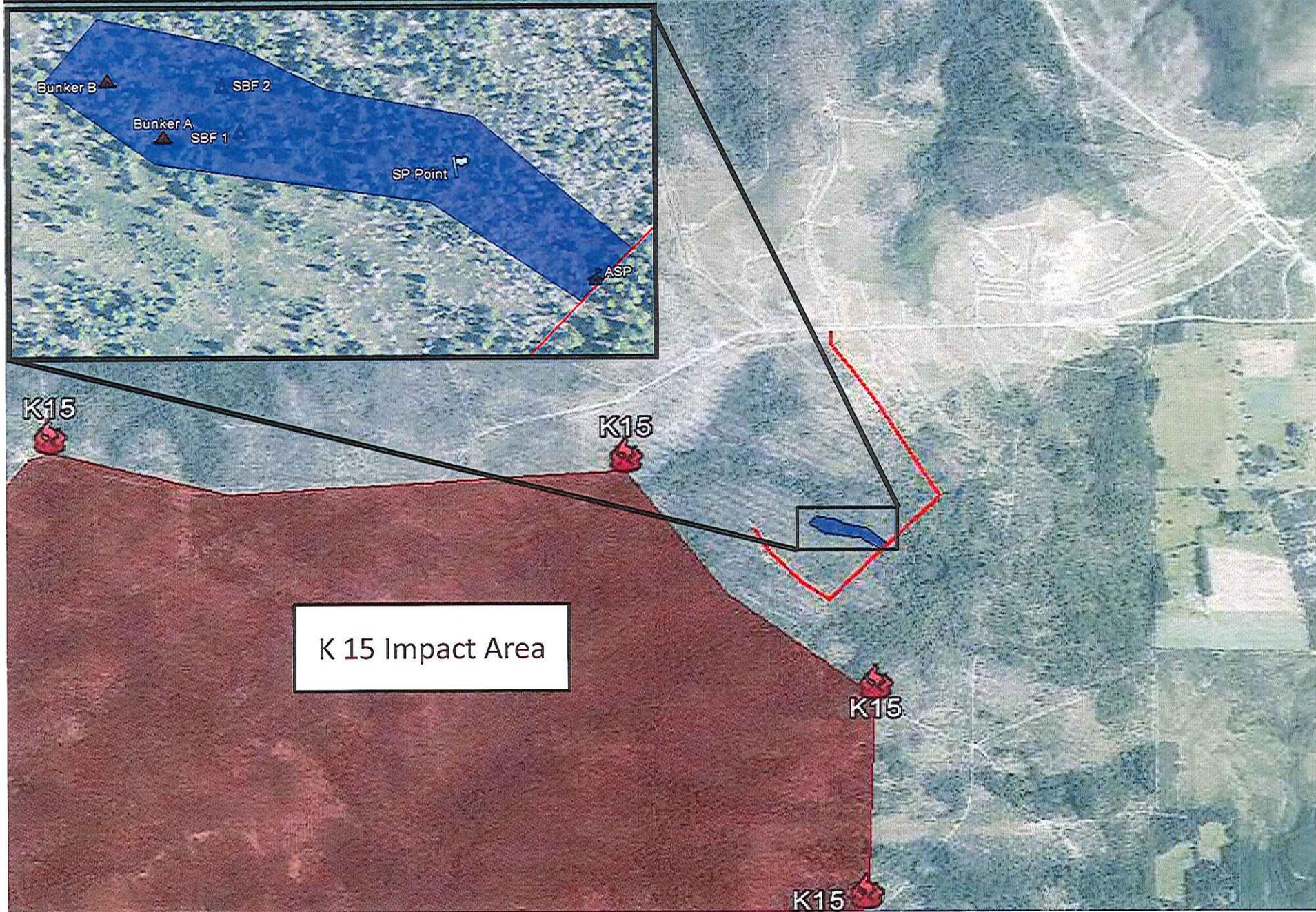


Figure 2: Area of Operation Micro



Figure 3: General Concept

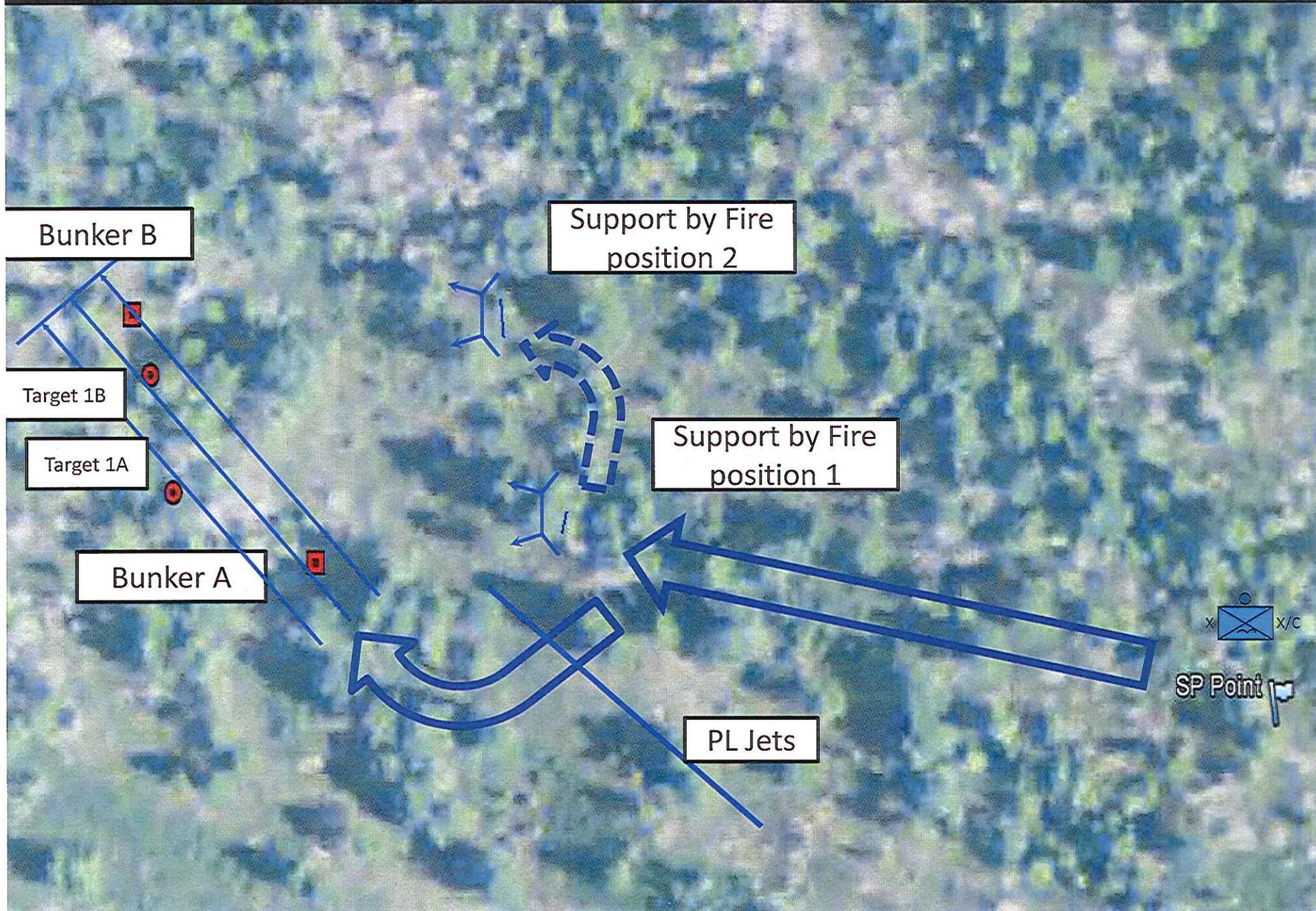


Figure 4: Left and Right Limits

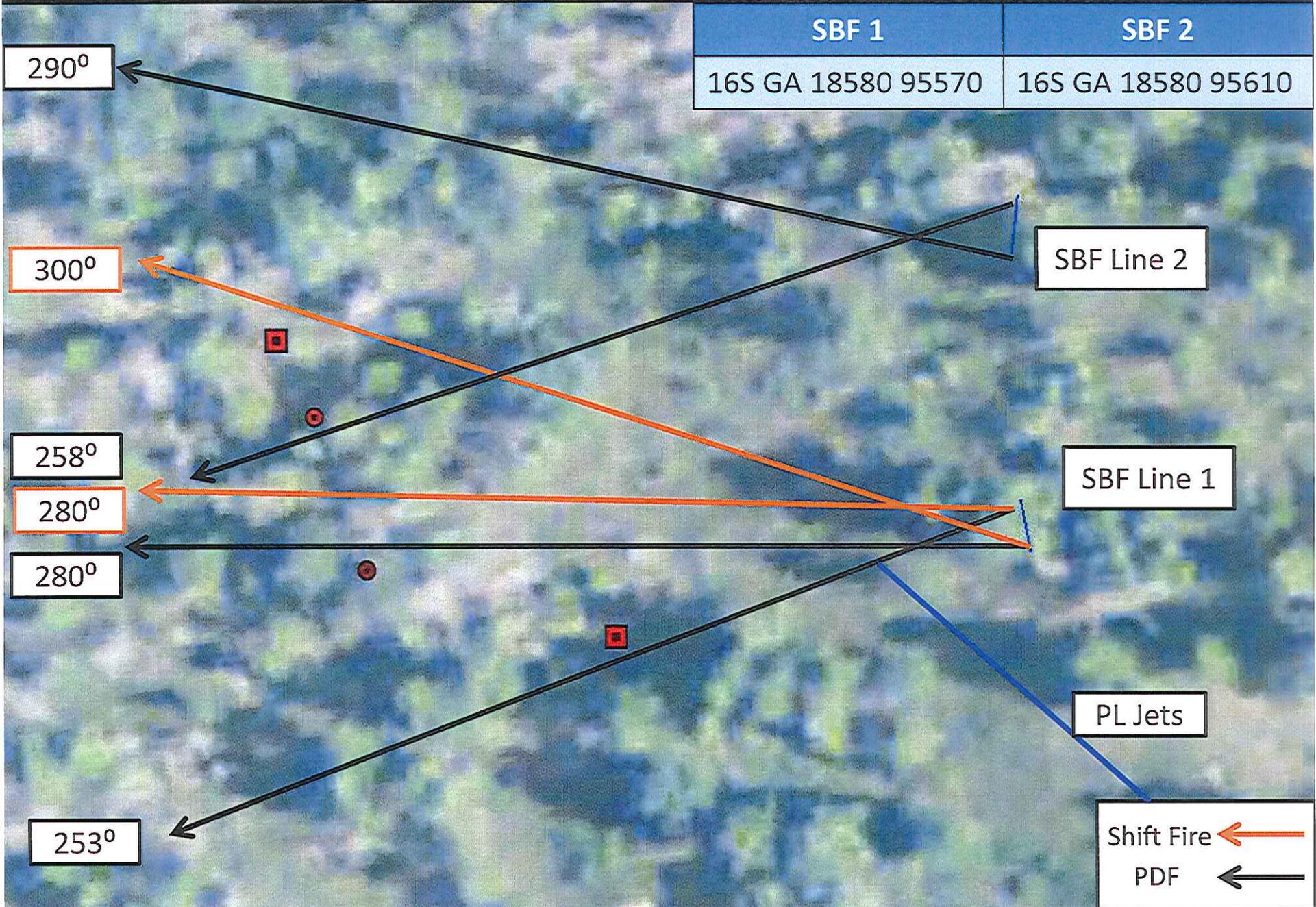
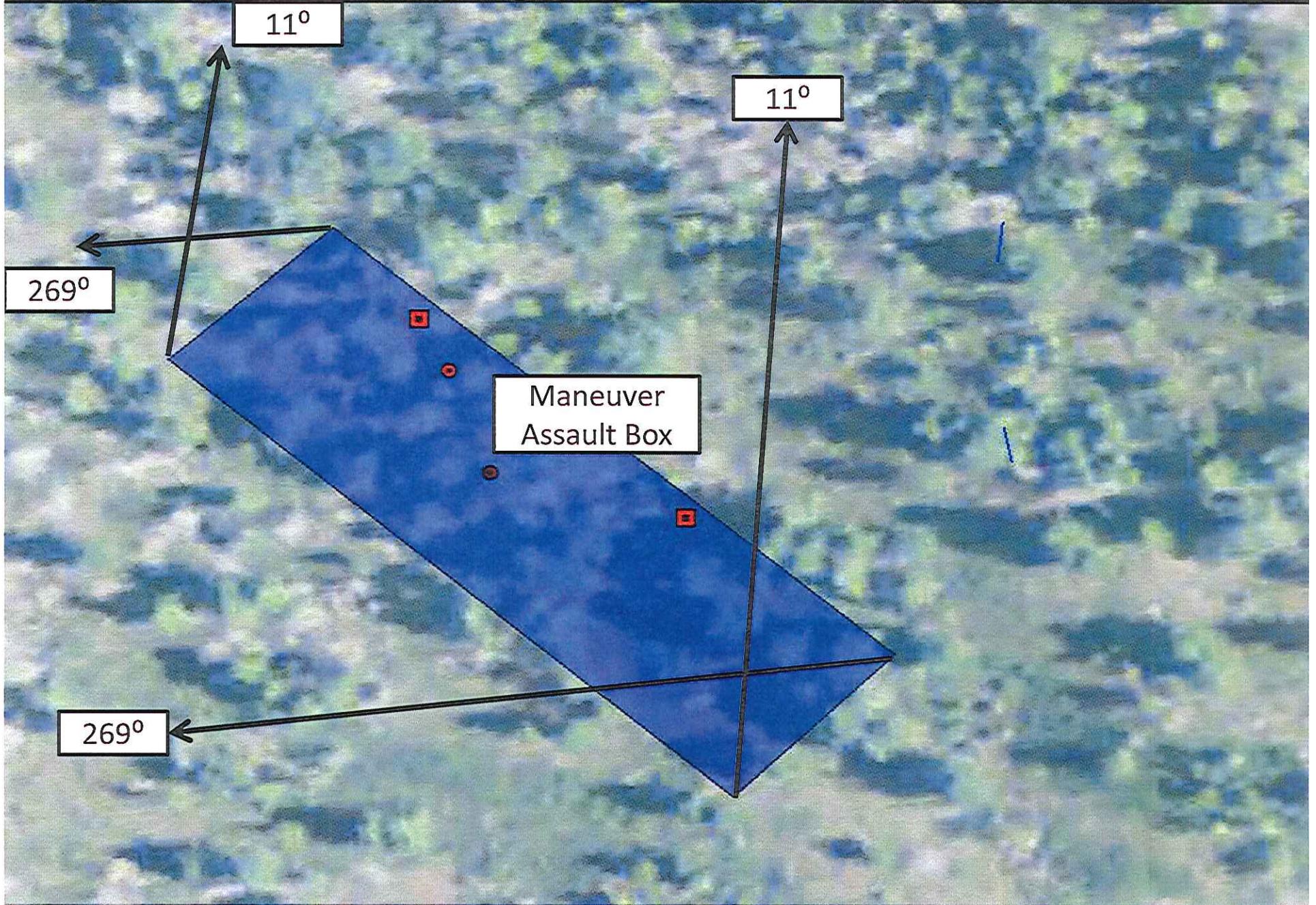


Figure 5: Left and Right Limits Maneuver Assault Box



MICRO TIMELINE

Time	Event	PAX
0545	ADVON SP to Hastings	Select PAX
0630	MB SP to Hastings	ALL
0800	Safety Brief / Range Walk	ALL
1100-1500	Day BFX	ALL
1500-1900	Day LFX	ALL
1900	CHOW	ALL
2030-0030	Night BFX	ALL
0030-0430	Night LFX	ALL
0430	Range Cold	ASP Guard
0500	Return to Company and Release	ALL

Request for Ammunition (Week 23)

To: Ammo NCO

Thru: Training Officer

From: C Co XO

Ammunition Requested for (SQD LFX: HASTINGS 03-05 MAR 2015)

Item	DODIC	Amount		Item	DODIC	Amount	
5.56 mm Blank	A080	8,920	8,320				
5.56 mm Blank Link	A075	7,200	7,200				
5.56 mm Ball	A059	11,760	11,760				
40 mm TP	B519	200	200				
40 mm Yellow Smoke	B509	0	96				
5.56 mm Mix Link	A064	9,600	9,600				
7.62 Blank	A111	4,800	7,400				
7.62 Live	A131	7,200	12,000				
Smoke Grenade, Yellow	G945	60	0				
Red Star Cluster	L306	4	0				
Hand Grenade Practice Fuzes	G878	0	150				
Signal Kit Pers. Distress A/P25S-5a "S/S"	L119	0	0	*Have 0 pen flares available to CO			

Date/Time of Delivery: 01000 03 MAR 2015

Date/Time of Pickup: 1000 06 MAR 2015

Location of Delivery: HASTINGS

Location of Pickup: HASTINGS

POC for request: 1LT Demro

Request date: 20 AUG 2014

Week 23

DELIBERATE RISK ASSESSMENT WORKSHEET

1. MISSION/TASK DESCRIPTION SQUAD LFX, HASTINGS RANGE (TW 23)	2. DATE (DD/MM/YYYY) 13/01/2015
---	---

3. PREPARED BY		
a. Name (Last, First, Middle Initial) WIEBOLD, THOMAS D.	b. Rank/Grade 1LT/O-2	c. Duty Title/Position PLATOON LEADER
d. Unit C CO 3/75TH RANGER REGIMENT	e. Work Email thomas.wiebold@soc.smil.mil	f. Telephone (DSN/Commercial (Include Area Code)) 706-545-5035
g. UIC/CIN (as required) WJBLCO	h. Training Support/Lesson Plan or OPORD (as required) ATTACHED	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
Movement to and from training site	Vehicle breakdowns/accidents	M	Drivers will be properly licensed on the vehicles they are operating and will comply with dispatch procedures to include PMCS.	How: PMCS and dispatch before MVMT Who: PLT and SQD leadership	L
		M	All drivers will conduct vehicle PCIs prior to movement, adhere to posted speed limit signs, drive defensively, and wear seat belts.	How: Ensure driver obeys traffic laws Who: TCs	L
		M	During periods of limited visibility, all vehicles will be ground guided when operating around dismounted personnel.	How: Ground guide Who: TC	L
Establishment of Ammunition Supply Point	Fire or explosion at ammunition supply point	M	Ammo point is arranged and maintained IAW range policies. Ammo handlers will have all paperwork IAW Ammo 67 course.	How: Ammo on opposite sides of ASP Who: Ammo NCO, OIC/RSO	L
	Mixing of blank and live ammunition	M	Ammo NCO signs for all ammunition and keeps blank and live ammo separated at ASP IAW FBGA range policy.	How: Ammo separated by terrain feature Who: OIC/RSO/Ammo NCO	L

Additional entries for items 5 through 9 are provided on page 2.

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

EXTREMELY HIGH
 HIGH
 MEDIUM
 LOW

11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION

Throughout the duration of the training event, NCOICs will dictate food, rest, and uniform plans for subordinate elements. RSO will ensure safety compliance. OIC will ensure O/Cs control fires from behind all team members. Squad leaders from another squad serve as target operators for the scenario. The use of blank round iterations prior to day and night live fire iterations will allow certification prior to the use of live rounds. Regimental and Battalion Policy Letter Number #7 will be followed. Proper walkthroughs, rehearsals, and PCC/PCIs will ensure safe execution. All fires will be oriented within the maneuver box left and right limits.

12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK APPROVE DISAPPROVE

a. Name (Last, First, Middle Initial) ELLIS, PATRICK J.	b. Rank/Grade COL/O-6	c. Duty Title/Position BATTALION COMMANDER	d. Signature of Approval Authority
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e. Additional Guidance:

DELIBERATE RISK ASSESSMENT WORKSHEET

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
Blank and live fire iteration switches	Blank and live ammunition mixing	M	Inspect Rangers between iterations to ensure download of all ammo at ammo point before transitioning from blank to live rounds.	How: Range brief; post iteration inspection Who: TL/SL/PSG/PL	L
Movement/maneuver on lane	Pre-existing hazards	M	Leaders will perform range walks on range and identify any potentially unsafe points of friction prior to LFX.	How: Range walks, safety brief, TFWT Who: OIC/RSO	L
Effect simulator	Burns or fire due to pyrotechnics and effects simulators	M	Targetry will establish pneumatic guns and train any operators on day 1.	How: Target operator brief Who: OIC/RSO	L
Conducting live fire	Loss of hearing due to loud noises	M	Rangers will wear ear pro and prescribed PPE at all times when weapons are being fired. Additional ear pro will be available at range.	How: PCC/PCI prior to each iteration Who: TL/SL/PSG/PL, OIC/RSO	L
	Injury/burns from effect simulators (grenade fuzes)	M	Rangers will throw grenade simulators in a safe direction away from other Rangers.	How: Safety brief Who: TL, OIC/RSO, O/Cs	L
	Injury due to a Ranger moving through another Ranger's field of fire	H	All training will be conducted IAW Policy Letter 7, RTC 350-1-2, and USASOC Reg 385-1. All iterations will have O/Cs.	How: Safety brief Who: PLT leadership, OIC/RSO	M
		M	Rangers will perform blank iterations of the scenario until leaders certify the team for live fire.	How: No unsafe acts observed IOT go live Who: PL/PSG/CO/ISG, O/Cs	L
		M	Rangers will wear prescribed PPE at all times and maintain selector levers on safe unless actively engaging targets.	How: Safety brief, PCC/PCIs Who: Leaders, OIC/RSO	L
		M	A 15 degree minimum safe distance will be strictly enforced for all direct fire weapon systems.	How: Policy Letter #7 Who: TL, SL, O/C walkers	L
	Injury due to accidental/negligent discharge	M	Weapon and muzzle awareness will be strictly emphasized during the range safety brief and throughout all training.	How: Safety brief Who: TL/SL/PLT leadership, O/Cs	L
		M	Rangers lock and load only when directed to do so at SP. Lock, clear and inspect all chambers after iterations are complete.	How: Command from O/Cs Who: TL/SL/PSG/PL, OIC/RSO	L
		M	Rangers will only use weapons they are zeroed, qualified, and boresighted on.	How: Pre-execution training Who: TL/SL/PSG/PL	L
		M	Medics will be onsite with a CASEVAC vehicle at all times during LFX.	How: Safety brief Who: OIC/RSO	L
	Fratricide resulting from fire and maneuver	H	CO CDR and BN CDR will validate all LFX scenarios prior to execution. OIC and RSO will be certified through Range Control.	How: Range walks Who: BC, CO, OIC, RSO	M

DELIBERATE RISK ASSESSMENT WORKSHEET

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
		M	All personnel and equipment will be accounted for after each iteration before beginning the next.	How: Team leader checks team Who: TL/SL/PSG/PL	L
		M	OIC and RSO will be RSO qualified and maintain updated RSO cards. OIC will operate range IAW FBGA range regulations	How: Maintain RSO cards on person Who: OIC/RSO	L
	Tripping hazards	M	Rangers will be mindful of their foot placement at all times.	How: Safety brief Who: OIC/RSO	L
	Minor bodily injury (cuts/falls)	M	Identify hazards during range walk and brief to all Rangers. Ensure all Rangers wear all proscribed PPE.	How: Safety brief Who: OIC/RSO	L
Night fire	Operating during periods of limited visibility	H	Rangers will conduct blank and live fire iterations of scenario prior to transitioning to night iterations	How: Day iterations Who: OIC/RSO	M
	Vision restrictions	M	Soldiers will utilize NODs and IR lasers IOT increase visibility and clearly identify targets	How: Spot checks Who: TL/SL/PSG/PL, OIC/RSO	L
		M	All Rangers will be briefed on NVG considerations including lack of depth perception and limited fields of view	How: Safety brief Who: OIC/RSO	L
	Laser eye damage	M	All Rangers will ensure IR lasers are set to low power and have blue safety screws installed.	How: Safety brief Who: OIC/RSO	L
	Clearing weapons in the dark	M	Leaders will clear each Ranger prior to leaving ENDEX location by visually inspecting weapons with white light	How: Leader checks Who: TL/SL/PSG/PL	L
Weather considerations	Severe inclement weather	M	Monitor net for all weather warnings. Weather restrictions will be enforced. Utilize sunscreen as appropriate.	How: Monitor range control net Who: OIC/RSO	L
		M	In the event of lightning stand down, all Rangers will move to pre-designated lightning safe positions.	How: Safety brief Who: OIC/RSO	L
	Exposure to cold rain	M	Leaders will ensure proper uniform is worn IAW weather and that frostbite/hypothermia do not set in	How: Safety brief Who: OIC/RSO	L
	Exposure to high winds	M	Leaders will understand the effect of high winds chill factor and modify the uniform of Rangers during execution and post execution	How: Safety brief Who: OIC/RSO	L
Environmental considerations	Dehydration	M	Rangers will hydrate before, during, and after training events. OIC/RSO will specify uniform modifications IAW climate conditions.	How: Monitor food and fluid consumption Who: TL/SL/PSG/PL, OIC/RSO, Medics	L

DELIBERATE RISK ASSESSMENT WORKSHEET

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
	Hot/Cold weather casualties	M	All training will be conducted IAW USASOC REG 385-1 and proper work/rest ratios for the climate will be utilized.	How: Safety Brief Who: OIC/RSO	L
		M	Leaders and buddies monitor for symptoms of weather-related injuries	How: Safety brief Who: OIC/RSO	L
	Wildlife	M	Rangers with allergies will be noted and marked IAW SOP. Rangers will not disturb wildlife. Utilize insect repellent as necessary.	How: Safety brief Who: OIC/RSO	L
		M	In the event of an encounter with red cockaded woodpeckers or gopher tortoises, training will cease until range control clears the area.	How: Safety brief Who: OIC/RSO	L
NOTHING FOLLOWS				How: Who:	
				How: Who:	

DELIBERATE RISK ASSESSMENT WORKSHEET

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: Death, unacceptable loss or damage, mission failure, or unit readiness eliminated I	EH	EH	H	H	M
Critical: Severe injury, illness, loss, or damage; significantly degraded unit readiness or mission capability II	EH	H	H	M	L
Moderate: Minor injury, illness, loss, or damage; somewhat degraded unit readiness or mission capability III	H	M	M	L	L
Negligible: Minimal injury, loss, or damage; little or no impact to unit readiness or mission capability 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)

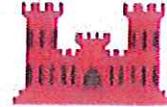
a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer

14. FEEDBACK AND LESSONS LEARNED

15. ADDITIONAL COMMENTS OR REMARKS



RECORD OF ENVIRONMENTAL CONSIDERATION REC



Date Submitted: 01/13/2015

EMD Number: 1501502

Project#: WJBLCO

Project Title: Hastings SLFX

Description of proposed action:

Squad fire and maneuver exercise utilizing up to 9 man Ranger squads. Munitions used for the duration of the exercise will include 5.56 blank/ball ammo, 7.62 blank/ball ammo, 40 mm training purpose round, 40mm yellow smoke round, yellow smoke grenade, red star cluster, hand grenade practice fuzes, and signal kit personal distress A/P25S-5a. All munitions will be utilized from both set firing positions as well as alternate positions for assaulting force, which will be driven by the direction of maneuver.

A training objective of this squad live fire exercise will be to "knock out a bunker", eliminating enemy forces in a developed fighting position. The fighting positions will require minor disruption of the soil during construction, minor being described as less than 12 inches of disturbance. Bunkers will be built by sand bags and one wood panel as a roof with additional sandbags on top. During the assault the bunker will be engaged by all weapon systems throughout the exercise, to include fragmentation grenade fuzes. The fuze explosion and fragmentation will be mostly contained internal of the bunker and will cause little to no disturbance to environment external of bunker.

Red star clusters as well as Signal Kit will be utilized faced up inside the wooded environment.

Range Clean Up after each element exercise to ensure maximum brass and munitions are accounted for post exercise, and all food and Ammo Supply point trash will be consolidated prior to element departure.

Additionally there will need to be some tree removal to prevent ricochets of rounds on maneuvering element from the base of fire. Trees will be less than 9" in diameter and approximately 8-10 trees total.

Project Location:

Hastings Range

Amount, Description, Location of Disturbance/Digging:

What type of land disturbance will you be doing?
No more than 12" disturbance at place of bunker build.

Number of Personnel:

40

Type Of Ammunition:

5.56 and 7.62 blank/live

Number/Types of Trees:

Number of trees to be removed?
8-10

Size of Project Area:

NA

Duration of Action:

Start:3/3/2015 Stop:3/5/2015

Proponent: RAYE.E.PEREZ 706-545-7718

Organization/Unit:

TENANT

Number/Types of Vehicles:

Yes.
How many vehicles and what type of vehicles will be involved?

Types of Avlation

Other Concerns

No Vehicles will be taken off road.

Bus, GMV, LMTV will be utilized to bring personel and ammunition onto site.

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."

*****THIS REC IS GOOD FOR ONLY THIS ONE TIME TRAINING EVENT*****

AREA WILL REQUIRE INSPECTION BY CONSERVATION BRANCH PERSONNEL AFTER TRAINING HAS OCCURED

EMD Number: 1501502 **Project#** WJBLCO

Project Title: Hastings SLFX

be limited to areas already disturbed if possible. Recommended distance of approximately 50 (17 meters) from any water source.

CWA - Training

Conditions:

Felix Seda (706-545-9879), 1/16/2015

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 improperly 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 and/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.

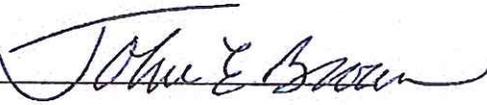
As needed, for environmental considerations to protect water quality; all food service facilities and waste collection areas (including Porta-Pottys) must be located away from any water wells, state waters, and waterways (including drainage ditches) in the vicinity of the training area. Recommended distance of approximately 100 (30 meters) from any water source.

Watershed Management

None

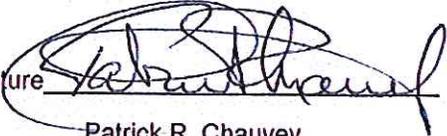
Hugh Westbury (706-545-4208), 1/16/2015

No Comment.

Signature 
John E Brown

NEPA Program Manager

Date 23 FEB 2015

Signature 
Patrick R. Chauvey

EPMB Chief

Date 23 FEB 2015

RECORD OF ENVIRONMENTAL CONSIDERATION (FB FORM 144R) CONTINUED....

RECORD NUMBER: 1501502

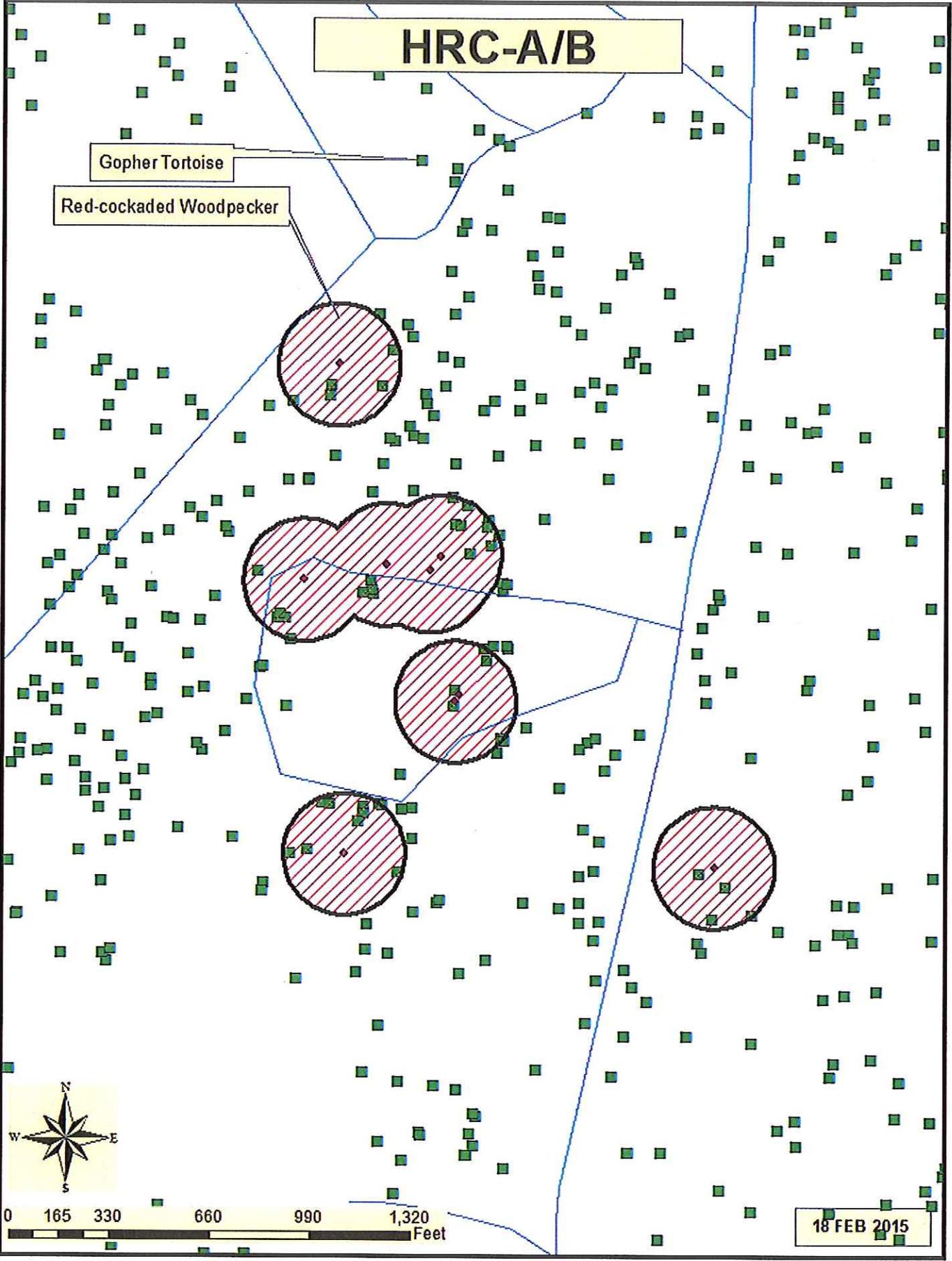
1. Backfill all fighting positions before leaving the training area.
2. Conservation Branch (CB) personnel may inspect for environmental violations. Unit should not conduct any type of activity that will result in the death or injury of pine trees that are 10 inches diameter or greater, this includes demolition, cutting, etc; off-road vehicles should not damage any such trees. Unit must not cut any pine trees for any use such as firewood, barricades, support structures, camouflage, etc. Failure to adhere to these conditions may result in disapproval of future 144Rs.
3. There are gopher tortoises in the area. Some burrows have been marked by a white PVC pipe or pink engineer's flags. Digging and all vehicles must be kept at least 50 feet away from gopher tortoise burrows, whether burrows are marked or unmarked. See attached sheet for more information regarding the gopher tortoise. There are sensitive areas that are marked with sensitive area signs. There is no digging or vehicle movement allowed in these areas.
4. There are 2 Red-cockaded woodpeckers (RCW) cluster located on Hastings Range at center point GLs 19128-95385 and 19050-95673. Two white bands mark cavity (nest) trees. The cluster boundaries extend approximately 200 feet from the cavity trees and are marked by signs indicating the area is an RCW cluster
 - a. **Activities in cluster boundaries are limited to 2 hours with the following activities allowed:** Hasty defense-light infantry-hand digging, foot traffic, wheeled-vehicle traffic (must stay 50 feet from marked trees), vehicle maintenance, 7.62-mm and lower blank firing, artillery/hand grenade simulators, Hoffman type devices, smoke/haze operations-generators or pots (smoke can drift into, but source must be outside boundary), star cluster/parachute flare, cutting of hardwoods for camouflage (do not cut any pines).
 - b. **The following activities are not allowed in the cluster boundary:** No other digging, establishment of command post, assembly area operations, established CS/CSS sites, live fire, noise generators, incendiary devices (including trip flares), CS/Riot gas, HC smoke, tank ditches, deliberate individual fighting positions, crew served fighting positions, vehicle fighting positions, force reduction positions, vehicle survivability postings.
 - c. Within ½ mile of a cluster, there is no mechanical digging within 20 feet of a mature pine tree (10 inches diameter at breast height or greater).
5. Report all wildfires to Range Control ASAP.

MICHAEL BARRON
Wildlife Biologist, CB
544-7080

HRC-A/B

Gopher Tortoise

Red-cockaded Woodpecker



18 FEB 2015

GOPHER TORTOISE - GEORGIA'S OFFICIAL STATE REPTILE

The Gopher Tortoise (GT) is a "keystone species" because of its value to other animals. Over 300 species of amphibians, reptiles, insects, and mammals move in with the GT, using its burrow for hiding, nesting, or overwintering.



The GT is one of only three land tortoises left in North America, and it is the only one east of the Mississippi River. Due to habitat loss, the GT has declined over most of its range and is federally-listed as a species of concern.

Digging and vehicular traffic are the only two training activities destructive to the GT and its habitat: these activities are prohibited within 50 feet of tortoise burrows, whether the burrow is marked or unmarked. Many burrows are unmarked, but they are easily identified. Tortoise colonies near tracked vehicle areas are marked by "Sensitive Area" signs.



TRAINING ACTIVITY WITHIN 200' BUFFER ZONE	
Maneuver and Bivouac:	
Hasty defense, Light Infantry, Hand digging only, 2 hrs max	yes
Foot Transit	yes
Wheeled Vehicle Transit	yes (1)
Cutting Hardwood Camouflage	yes
Vehicle Maintenance, 2 hrs max	yes
Hasty defense, Mechanized Infantry/Armor	no
Deliberate Defense, Light Infantry	no
Deliberate Defense, Mechanized Infantry/Armor	no
Established Command Post, Light Infantry	no
Assembly Area Operations, Light Infantry, Mech Infantry/Armor	no
Established CS/CSS Sites	no
Cutting Pine Trees (anywhere on post)	no
Weapons Firing:	
7.62mm and Below Blank Firing	yes
.50 Cal Blank Firing	yes
Artillery Firing Position	no
MLRS Firing Position	no
All Others	no
Noise:	
Artillery/Hand Grenade Simulators	yes
Hoffman Type Devices	yes
Generators	no
Pyrotechnics/Smoke:	
Smoke, Haze Operations, Generators or Pots	yes (2)
Smoke Grenades	yes
Star Cluster/Parachute Flares	yes
Incendiary Device to Include Trip Flares	no
CS/Riot Gas	no
HC smoke of Any Type	no
Digging:	
Hasty Individual Fighting Positions, Hand Digging Only	yes
Tank Ditches	no
Deliberate Individual Fighting Positions	no
Crew-served Weapons Fighting Positions	no
Vehicle Fighting Positions	no
other survivability/Force Reduction positions	no
Vehicle Survivability Positions	no

Note: Yes means that the activity may be conducted within 200 feet of a marked cavity tree

- (1) Vehicles (wheeled) will not get closer than 50 feet of a marked cavity tree unless on an existing road or trail; tracked vehicles may use named roads and trails that pass within 50 feet of a banded cavity tree but should reduce speed
- (2) Smoke generators and smoke pots will not be set up within 200 feet of a marked cavity tree, but the smoke may drift inside the 200 foot buffer

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 or 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

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 -----

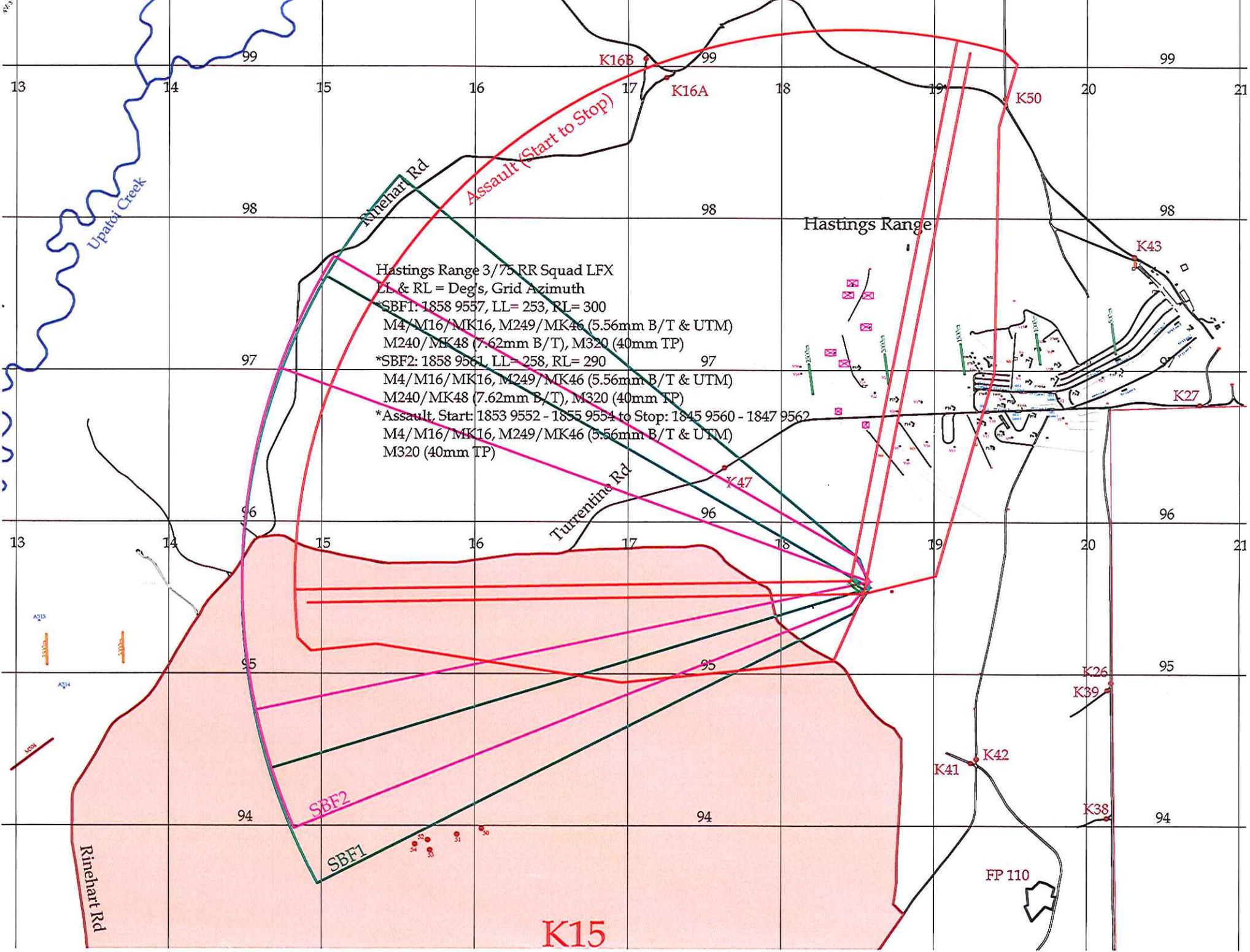
ENVIRONMENTAL INCIDENT REPORT FORM

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.)

Hastings Range 3/75 RR Squad LFX (Log #2-2-15) Roadblocks 25 Feb 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-5	GA 117 920	Across Shamanski Rd 25m N. of its intersection with Buena Vista Rd.	Gate	K-28	GA 191 885	Across Whitson Rd 15m W. of its intersection with Cactus Rd.	Gate
K-7	GA 109 937	Across Moore Rd 15m N. of its intersection with Bullseye Rd.	Cable	K-29	GA 189 888	Across un-named trail on left side of Cactus Range 300m W of Cactus Road	Gate
K-8	GA 099 947	Across Bulls Eye Rd 50m E of its intersection with Lorraine Road.	Gate	K-30	GA 190 890	Across un-named trail on right side of Cactus Range 250m W of Cactus Road.	Gate
K-9	GA 103 921	Across Buena Vista Rd 40m E of the intersection with Moore Rd (Road Guard Location)	Gate	K-32	GA 192 915	Across Shamanski Road 35m W of its intersection with Cactus Rd.	Gate
K-9A	GA 106 919	Across tank trail 200m W of the Upatoi Creek ford site.	Gate	K-36	GA 163 883	Across Buena Vista Rd 50m W. of its intersection with Box Springs Rd. (Road guard location).	Gate
K-10	GA 118 920	Across Buena Vista Rd at K-5 road block.	Gate	K-36A	GA 163 882	Across Tank Trail 50m W. of its intersection with Box Springs Rd.	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-38	GA 201 941	Across unnamed trail 35m 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-39	GA 202 949	Across unnamed trail 15m W. of its intersection with the east boundary road. Permanently closed.	Gate
K-13	GA 112 943	Across Moore Rd 680m N. of its intersection with Bullseye Rd.	Gate	K-40	GA 174 908	Across Box Springs Rd 30m S. of Pine Knot Creek.	Gate
K-14	GA 113 998	Across Moore Rd 10m S. of its intersection with Lorraine Rd.	Gate	K-41	GA 192 944	Across Kennesaw Trail 30m W. of its intersection with Box Springs 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-42	GA 193 944	Across Box Springs Rd 10m N. of its intersection with Cactus Rd.	Gate
K-16	GB 190 003	Across Rinehart Rd 130m W. of its intersection with Box Springs 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-16A	GA 172 989	Across Rinehart Rd 20m S. of its intersection with the northern boundary range road.	Gate	K-44	GA 113 955	Across Moore Rd on the N. side of Carmouche Range maneuver box.	Gate
K-16B	GA 171 990	Across un-named trail 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-17	GB 116 013	Across unnamed trail 15m E. of Moore Rd and 300m N. of Ruth Range tower.	Gate	K-46	GA 119 979	Across Moore Rd 725m S. of its intersection with Americo Trail	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-47	GA 176 963	Across Turrentine Rd 1000m W. of mover 4 on Hastings Range	Gate
K-20	GB 141 021	Across unnamed trail 550m S of the northern boundary range road.	Cable	K-50	GA 195 988	Across Box Springs Rd 60m N. of its intersection with the northern boundary range road.	Cable
K-21	GB 139 027	Across the northern boundary range road Aprox 250m East of Cox Creek bridge.	Gate				



Hastings Range 3/75 RR Squad LFX
LL & RL = Deg's, Grid Azimuth
*SBF1: 1858 9557, LL= 253, RL= 300
M4/M16/MK16, M249/MK46 (5.56mm B/T & UTM)
M240/MK48 (7.62mm B/T), M320 (40mm TP)
*SBF2: 1858 9561, LL= 258, RL= 290
M4/M16/MK16, M249/MK46 (5.56mm B/T & UTM)
M240/MK48 (7.62mm B/T), M320 (40mm TP)
*Assault, Start: 1853 9552 - 1855 9554 to Stop: 1845 9560 - 1847 9562
M4/M16/MK16, M249/MK46 (5.56mm B/T & UTM)
M320 (40mm TP)

K15

FP 110