

**FIRING/NONFIRING DATA**

LOG # 8-5-15

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:** 14 August 2015  
**Range:** Dianda  
**Title:** Hand Grenades  
**Problem No:**

**THRU:** 3-16 CAV  
316th Cavalry Brigade  
10298 316th Cavalry RD, BLDG 5143  
Fort Benning, GA 31905

**FROM:** C Trp, 3-16 CAV  
316th Cavalry Brigade  
BLDG 5117, 10290 13th Armored Regiment Rd.  
Fort Benning, GA 31905

**SECTION I, TYPE OF TRAINING**

a. Live Fire       b. Non-live Fire      CP/Controller Coordinates: FA 969 826

**SECTION II, DEMOLITIONS/GRENADES/MINES/PYROTECHNICS**

Coordinates	Type	Model/DODAC	Size of Charges
SEE WEAPON AND AMMO ENCLOSURE	SEE WEAPON AND AMMO ENCLOSURE	SEE WEAPON AND AMMO ENCLOSURE	N/A

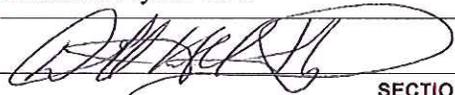
**SECTION III, WEAPONS/AMMUNITION REQUESTED**

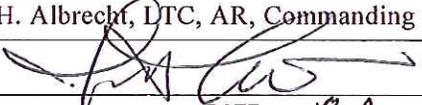
Coordinates of Weapons Position	Type Weapon/Model Number	Type Ammunition	Left Limit	Right Limit
SEE WEAPON AND AMMO ENCLOSURE	SEE WEAPON AND AMMO ENCLOSURE	SEE WEAPON AND AMMO ENCLOSURE	SEE ENCLOSURE	SEE ENCLOSURE

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

Name/rank of requesting officer:  
Donald H. Flynn / SFC  


Name/rank of Major Unit S3/Commander:  
Joseph H. Albrecht, DTC, AR, Commanding  


**SECTION VI, FOR RANGE DIVISION USE**

DATE: 18 August 2015

**TO:** C Trp, 3-16 CAV  
316th Cavalry Brigade  
BLDG 5117, 10290 13th Armored Regiment Rd.  
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: 17 Aug 17

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



**Dianda Range, 3-16 CAV Hand Grenade Weapons/Ammo List Enclosure**

**SECTION II, DEMOLITIONS/GRENADES/PYROTECHNICS**

<b>Coordinates</b>	<b>Type</b>	<b>Model/DODAC</b>	<b>Size of Charges</b>
Mock Bay Demonstration Area FA 9714 8280	Grenade, Smoke (G,Y,R,V), Practice Hand Grenade, Incideiary TH3 AN	M18 (G 940/945/950/955), M83 (G982) M14 (G900), M228	N/A
Hand Grenade Qualification Course FA 9741 8277	Practice Hand Grenade/ Fuze Hand Grenade Practice M228	M69 (G811), M228	N/A
Live Grenade Bays, Pit 1 to Pit 4 9697 8265 to FA 9691 8268	Grenade Fragmentation	M67 (G881)	N/A
Live Grenade Bays, Pit 1 to Pit 4 9697 8265 to FA 9691 8268	Grenade Concussion	Improved MK3A2 (G911)	N/A
Live Grenade Bays, Pit 1 to Pit 4 9697 8265 to FA 9691 8268	Scalable Offensive Hand Grenade	X514	Base w/ 1 Module

**SECTION III, WEAPONS/AMMUNITION REQUESTED**

<b>Coordinates of Weapons Position</b>	<b>Type Weapon/ Model Number</b>	<b>Type Ammunition</b>	<b>Left Limit Deg's Grid Azimuth</b>	<b>Right Limit Deg's Grid Azimuth</b>	<b>Amount Req.</b>
Live Grenade Bays, Pit 1 to Pit 4 FA 9697 8265 to FA 9691 8268	Scalable Offensive Hand Grenade	X514	158	248	440
Live Grenade Bays, Pit 1 to Pit 4 FA 9697 8265 to FA 9691 8268	Grenade M67 (G881)	Fragmentation	158	248	440
Live Grenade Bays, Pit 1 to Pit 4 FA 9697 8265 to FA 9691 8268	Grenade Concussion Improved MK3A2 (G911)	Concussion	158	248	440
Hand Grenade Qualification Course FA 9741 8277	Practice Hand Grenade (G811), Fuze Hand Grenade practice (G878)	M69 (G811), Fuze (M228)	N/A	N/A	3300
Mock Bay Demonstration Area FA 9714 8280	Grenade, Smoke (G,Y,R,V), Practice Grenade	M18 (G 940/945/950/955), M83 (G982)	N/A	N/A	5 (1 of EA)



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
HEADQUARTERS, 3<sup>RD</sup> SQUADRON 16<sup>TH</sup> CAVALRY  
10290 13<sup>TH</sup> ARMORED REGIMENT ROAD - BLDG 5141  
FORT BENNING, GEORGIA 31905-5000

ATZK-SBA

## MEMORANDUM FOR RECORD

SUBJECT: 3-16 CAV Training Scenario for Dianda Hand Grenade Range

PURPOSE: To outline the sequence of events on Dianda Hand Grenade Range and requirements during each phase of training.

### 1. References:

- a. FM 3-23.30 (Grenades and Pyrotechnic Signals)
- b. Training Support Package (TSP) – US Weapons Training (Hand Grenades)
- c. MCOE Range and Terrain Regulation 350-19
- d. DA Pam 385-10 (The Army Safety Program)
- e. FM 5-19 (Composite Risk Management)

### 2. RANGE OPENING AND PREPERATION

- a. Range is opened through range control via radio communication by the range OIC.
- b. Training unit detail arrives prior to the main body.
- c. Detail conducts range setup in preparation for the arrival of the main body.

### 3. MAIN BODY ACTIVITIES

- a. Main body arrives and organizes in staging area; Trainees are accounted for. Hot/Cold weather injuries are identified prior to arriving to the range.
- b. Trainees are given a Range Orientation/Safety brief by the primary instructor.
- c. Trainees are given instruction and demonstration on the different types of grenades, including Smoke and incendiary.

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#### 4. PRE-LIVE ORDNANCE TRAINING

a. All trainees receive training on the proper left/right hand grip, safe handling techniques to include instruction on confidence clips, and how to properly store the hand grenades.

b. All trainees are taught "Mock Bay" prior to throwing live grenades.

c. Trainees must pass "Mock Bay" training prior to live ordnance training.

d. Trainees will rehearse Live Bay emergency procedures for grenade dropped in the pit and out of the pit.

#### 5. LIVE ORDNANCE TRAINING

a. Trainees will be given a period of instruction at the "Live Bay" on what is expected of them.

b. Sequence of events:

(1) Trainees exit the viewing/ready room and receives the live ordnance.

(2) Utilizing the correct hold, they proceed to their assigned Bay and Pit.

(3) Throwers must hold the grenade so the Range Cadre can observe the grenade at all times.

(4) The Pit NCO Safety assumes control of the trainee.

(5) The tower will direct all activities on the firing line.

#### 6. HGQC

a. When directed, the trainees will move to the Hand Grenade Qualification Course (HGQC).

b. All weapons will remain consolidated at one location and will not be used on the HGQC.

c. The trainees will then negotiate the HGQC, which will be run by the Drill Sergeants.

d. All troops, weapons, equipment, ammunition and dunnage will be accounted for.

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SUBJECT: 3-16 CAV Training Scenario for Dianda Hand Grenade Range

- e. Trainees receive a brass and ammo check by their chain of command.

## 7. AMMUNITION

a. Live ammunition is stored and guarded at the Live Bay area and is segregated by lot number.

- b. Practice ammo is stored in the practice ammo point. (ref. sketch)

## 8. SAFETY

a. All movement will be controlled based on unit size and training pace. Access to training areas will be controlled by range cadre or their designees. Trainees will meet all prerequisites prior to Live Bay Training.

- b. Field Litter Ambulance with medic will be on site at all times during live bay.

c. For all injuries resulting in threats to life, limb and eyesight, medics on sight are the first responders. Range Control, Unit Headquarters and E911 will be notified accordingly.

- d. Range OIC will check OSUT/BCTB units for

- (1) Range request

- (2) Ice Sheets

- (3) Wet bulb

- (4) Hearing protection

- (5) Unit Commander's Risk Assessment

e. Training unit should not conduct any upper body PT the day of Hand Grenade training until live fire is complete.

f. All personnel, to include training unit cadre and trainees, will receive a safety briefing prior to any training taking place.

g. All personnel will wear Kevlar helmet, IBA/OTV, EYEPRO, and hearing protection during Live Bay or HGQC if the M228 fuzes are used.

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SUBJECT: 3-16 CAV Training Scenario for Dianda Hand Grenade Range

h. All trainees will receive instruction on proper grenade/fusing techniques as well as proper usage while at the range (Leather Glove shells will be used during the fusing process and expended shell recovery), trainees will be supervised at all times during the fusing process.

i. All trainees must complete Mock Bay training in order to throw live.

j. All Mock Bay failures will not be allowed to throw live. All failures will be determined by the Range OIC.

k. All Pit NCOs are certified by the Company Commander and are competent in all safety procedures.

l. One member of the unit's Top 3 (Commander, First Sergeant, or XO) will remain in the tower during Live Bay.

m. Any member of the trainee's Chain of Command that wants to observe trainees throwing live hand grenades will be in the same uniform as the trainees, and must acknowledge that they understand the safety procedures.

n. Any bay (consisting of one pit) adjacent to a DUD grenade that is not separated by a berm will not be utilized until the DUD has been cleared by EOD.

o. All Composite Risk Management Worksheet controls will be observed. Violations will be brought to the attention of the OIC, NCOIC, RSO, Range Cadre, and Drill Sergeants.

p. Prior to Live Fire portion of grenade training the FLA with driver will be posted to control personnel from entering the Live Fire Area of the Grenade Range.

q. All Pit NCO's will be certified on dropped grenade procedures.

r. In the event of a DUD, per SOP, the following actions will be taken:

(1) Activities in that bay will cease.

(2) All throwers and cadre in that bay will wait in their throwing pit for 5 minutes before exiting to shelter in a covered position.

(3) Range Control and EOD will be notified immediately.

(4) Adjacent Bays may continue training as long as there is a berm separating them from the DUD.

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(5) Once EOD arrives all bays will cease activities until the DUD has been neutralized.

s. Live grenades will not be thrown into standing water, deep snow, or dense vegetation.

#### 9. MEDICAL

a. Primary means of coverage will be on-site FLA with 2 medics. A medic with aid bag will walk with each Platoon with the live fires.

b. The OIC will evacuate serious injuries by air or ground by calling E911 for a MEDEVAC request. The primary LZ for air evacuation is FA 9725 8285. The primary marking signal for air evacuation is red smoke.

c. The OIC will brief the range MEDEVAC plan with the unit leadership and medics prior to live Bay.

d. Routine and non-life threatening injuries will use the ground FLA for MEDEVAC. Life threatening injuries will call E911 for a MEDEVAC request.

e. In the event of an accident, injury, or incident the RSO will immediately call a cease fire until the problem is resolved. The OIC will render reports to Range Control and take action as directed by Range Control. In the event that the injury could result in the loss of life, limb, or eyesight he/she will call E911 and request air/ground evacuation. Regardless of injury or not the following information will be furnished by the OIC/RSO to Range Control:

- (1) Designation of unit.
- (2) Range and Location.
- (3) Type of weapons involved.
- (4) Type of ammunition involved.
- (5) Brief summary of what happened.
- (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.

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SUBJECT: 3-16 CAV Training Scenario for Dianda Hand Grenade Range

10. The point of contact for this memorandum is SFC Flynn, Donald H. at 706-626-7904 or [donald.h.flynn.mil@mail.mil](mailto:donald.h.flynn.mil@mail.mil).



JAMES E. HAYES  
LTC, AR  
Commanding

## DELIBERATE RISK ASSESSMENT WORKSHEET

<b>1. MISSION/TASK DESCRIPTION</b> Hand Grenade (Live Bay) For use on: Dianda HG Range; Malone 1			<b>2. DATE (DD/MM/YYYY)</b> Start:01/10/2014    End:30/09/2015		
<b>3. PREPARED BY</b>					
a. Name (Last, First, Middle Initial) Hewett, Timothy D.		b. Rank/Grade CPT/ O-3		c. Duty Title/Position Troop Commander, C Trp. 3-16 CAV	
d. Unit C TRP, 3-16 CAV, 316 CAV BDE		e. Work Email timothy.d.hewett2.mil@mail.mil		f. Telephone (DSN/Commercial (Include Area Code)) (706) 545-5190	
g. UIC/CIN (as required) W1DXA7		h. Training Support/Lesson Plan or OPORD (as required) BT071-081, 171IRHNG049, 171IRING038		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
Range/General Situational Awareness	Inability to conduct safe training or to identify disqualified Soldiers	EH	a) Range OIC will brief all training unit cadre and leadership on the range DRAW, SOP, and training scenario. b) OIC will consult with training unit leadership to identify Soldiers with disqualifying issues such as: (suicidal/homicidal, behavioral health, hot/cold injuries, allergies, medically limited) c) Range OIC will brief all training unit cadre on MEDEVAC procedures and responsibilities	How: IAW - AR 385-63, DA Pamphlet 385-63, TRADOC 385-2 MCoE Reg 350-19, Dianda Range SOP, Dianda Training Scenario, Dianda Range Safety Brief  Who: Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers	H
Additional entries for items 4 through 9 are provided on pages 2-5.					
<b>10. OVERALL RESIDUAL RISK LEVEL (All controls implemented):</b>					
<input type="checkbox"/> EXTREMELY HIGH <input checked="" type="checkbox"/> HIGH <input type="checkbox"/> MEDIUM <input type="checkbox"/> LOW					
<b>11. OVERALL SUPERVISION PLAN AND RECOMMENDED COURSE OF ACTION</b> All coordination and inquiries should be made directly with the C Troop, 3-16 CAV CP, at 706-626-6559 or with the Committee Team Chief listed above. Specific Course of Action, implementation, and execution for this activity is published within the appropriate SOP and/or Training Scenario.					
Concur: JAMES E. HAYES LTC, AR Commanding		Concur: WILLIAM L. THIGPEN COL, AR Commanding			
<b>12. APPROVAL OR DISAPPROVAL OF MISSION OR TASK</b> <input type="checkbox"/> APPROVE <input type="checkbox"/> DISAPPROVE					
a. Name (Last, First, Middle Initial) McKean, Dennis S.		b. Rank/Grade BG/O-7		c. Duty Title/Position Commandant, USAARMS	
d. Signature of Approval Authority 					
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
M67 fragmentation grenade employment	Pit NCO unaware of procedures during Live fire and Mock Bay	EH	Pit NCOs memorize and enforce the standards: Mock and live bay procedures IAW Range SOP, UXO procedures AR 350-6. Bay NCOs control each Soldier during throw. Pit NCO takes visual and verbal commands from OIC in Tower. Pit NCO immediately notifies OIC/RSO of any hazards. Calls cease fire until resolved.	<p><b>How:</b> Range POI, HG1 TSP and FM 23-30 MCoE Reg 350-19, DA PAM 385-30, AR 385-10, AR 385-63</p> <p><b>Who:</b> Dianda Range OIC, RSQ, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	H
M67 fragmentation grenade employment	Loss of control during Live Fire	EH	Pit NCOs will maintain direct control over Soldiers in the pit and maintain positive visual observation and control of the live grenades the entire time. The following actions will be rehearsed prior to conducting Live Bay and will be overseen by the RSO and OIC. In addition to running mock bay training pit NCO's will rehearse the following actions in the live bay, Procedures for a dropped HG in the throwing pit and throwing procedures for left and right handed throwers. The OIC and RSO will ensure all rehearsals are properly conducted.	<p><b>How:</b> MCoE 350-19, Range SOP, AR 385-63, and FM 23-30</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	H
M67 fragmentation grenade employment – Live Fire Accidents	a) Armed Hand Grenade dropped in the pit	EH	Pit NCO will assist Soldier over the back wall while announcing "Grenade, Grenade, Grenade!" The Pit NCO will then cover the Soldier with himself to maintain control.	<p><b>How:</b> Range POI, HG1 TSP and FM 23-30 MCoE Reg 350-19, DA PAM 385-30, AR 385-10, AR 385-63</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	H
M67 fragmentation grenade employment – Live Fire Accidents	b) Armed Hand Grenade over back wall of pit	EH	Pit NCO will assist Soldier to the prone against the back wall announcing "Grenade, Grenade, Grenade!" The Pit NCO will then cover the Soldier with himself to maintain control.	<p><b>How:</b> Range POI, HG1 TSP and FM 23-30 MCoE Reg 350-19, DA PAM 385-30, AR 385-10, AR 385-63</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	H
M67 fragmentation grenade employment – Live Fire Accidents	c) Soldier watches grenade after thrown	EH	Pit NCO physically forces Soldier down behind the front wall of the pit.	<p><b>How:</b> Range POI, HG1 TSP and FM 23-30 MCoE Reg 350-19, DA PAM 385-30, AR 385-10, AR 385-63</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	H
M67 fragmentation grenade employment – Live Fire Accidents	d) Soldier freezes after arming grenade	EH	Pit NCO walks Soldier to the front of the pit and forces Soldier to release the grenade and assists him down behind the front wall of the pit	<p><b>How:</b> Range POI, HG1 TSP and FM 23-30 MCoE Reg 350-19, DA PAM 385-30, AR 385-10, AR 385-63</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers, Range POI</p>	H

## 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
M67 fragmentation grenade employment – Live Fire Accidents	e) Soldier "Milks" or cooks off the grenade	EH	Pit NCO will give the command of "Throw" to the Soldier. If Soldier does not throw the grenade, the Pit NCO will assist the Soldier in dropping the grenade over the front wall of the pit. The pit NCO will then assist the Soldier in getting down behind the front wall of the pit. Pit NCOs will maintain a hand over the Soldiers during all live grenade throws to ensure the Soldiers do not "Milk" the grenade and to maintain positive control over the armed grenades.	<p><b>How:</b> Range POI, HG1 TSP and FM 23-30 MCoE Reg 350-19, DA PAM 385-30, AR 385-10, AR 385-63</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	H
Range Execution	Heat	H	Wet bulb on site, CLS w/aid bag. Ice sheets and bulk water source/ cooling tent. Training unit leadership alters uniform and training tempo to within temperature guidelines. Buddy Teams monitor each other, Range cadre and Drill Sergeants monitor all Soldiers. NCOIC enforces rest and cool down phases w/RSO and Training Unit.	<p><b>How:</b> IAW - GTA 5-12-8, Unit SOP, BDE policy AR 350-10, AR 350-6</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	M
Operating under limited visibility	Lack of positive control grenades after employment	H	When there is limited visibility, OIC makes the appropriate assessment; Lane Safeties also make an assessment within their lane during live fire. Bay NCOs are in direct Contact w/RSO and NCOIC to make safety calls, NCOIC and RSO continuously monitor visibility to ensure safe range conduct.	<p><b>How:</b> IAW -Range POI, HG1 TSP, and FM 23-30 MCoE Reg 350-19, DA PAM 385-30, AR 385-10, AR 385-63</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	M
Fratricide	Soldiers unable to meet standards set forth to employ Live Hand Grenade	H	Soldiers receive instruction about proper throwing techniques, kill radius and must exhibit proper gripping procedures, throwing techniques and throwing positions at the Mock Bay and be able to throw over and past the 15 meter line located to the front of the mock bay. Bay NCOs will be certified on safety measures before running one of the live bays. Live Bay NCOs will give specific step by step instructions to each Soldier who prepares to throw and observe and enforce for correct performance measures. Soldiers who are unable to throw the proper distance or violate any of the 8 safety violations after retraining (Double NO-GO) will not be allowed to throw a live hand grenade and can be rescheduled.	<p><b>How:</b> MCoE 350-19, pg 2-18, Range SOP, FM 23-30 and AR 385-63</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	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
Employ Hand Grenades	Self inflicted injury	H	OIC will consult with training unit CoC prior to the execution of training to identify high risk Soldiers (i.e. Soldiers displaying suicidal or homicidal intent or gestures demonstrating serious emotional issues). Those Soldiers identified as a high risk will be denied access to weapons or ammunition if they are deemed a threat to themselves or fellow Soldiers.	<p><b>How:</b> Training unit COC, OIC, RSO, Range Cadre, Drill Sergeants, Battle Buddies and individual Soldiers</p> <p><b>Who:</b> TSP, A 3/16 SOP, MCoE, REG,350.19, AR 385-63, DA PAM 365-63</p>	M
Employ Hand Grenades	UXO	M	Soldiers receive UXO briefing during the class portion. Lane safeties monitor lanes during execution. Maintain contact w/ range control via FM. OIC clears the range prior to training.	<p><b>How:</b> SOP, MCoE Reg 350-19, AR 385-10, DA PAM 385-63</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	L
Employ Hand Grenades	Wildlife on the Range	M	SMs will not approach wildlife and will notify Cadre members if they observe animals down range. NCOIC or OIC will call cease fire until range is clear.	<p><b>How:</b> SOP, MCoE Reg 350-19, AR 385-10, DA PAM 385-30</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	L
Employ Hand Grenades	Trip Hazards	M	Site is cleared of debris. Equipment check is conducted to ensure all equipment is secured and eye pro does not fog.	<p><b>How:</b> SOP, AR 385-10, DA PAM 385-30</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	L
Employ Hand Grenades	Hearing Loss	H	Lane Safeties ensure Soldiers are in proper uniform, OIC and RSO ensure all cadre are in the proper uniform. Soldiers wear hearing protection during execution.	<p><b>How:</b> BDE Policy, Range SOP and FM 385-63, AR 385-10, DA PAM 385-30</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	M
Employ Hand Grenades	Eye injuries	M	Lane Safeties ensure Soldiers are in proper uniform, OIC and RSO ensure all cadre are in the proper uniform. Soldiers wear eye protection during execution. Prescription glasses will not provide adequate wrap around protection and will not be worn in lieu of proper ballistic eye protection.	<p><b>How:</b> SOP, AR 385-10, DA PAM 385-30</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	L
Employ Hand Grenades	Ammunition accountability	M	When ammunition arrives, the unit Ammo NCO will account for all grenades and fuses by LOT # at start and finish of training. All LOTs will be stored separately. Ammunition will be stored at the appropriate location on Dianda Range (i.e., live ammo pad and pyro ammo pad.)	<p><b>How:</b> BDE Policy, Range SOP and FM 385-63, AR 385-10, DA PAM 385-30</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	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
Range Execution	Severe Weather	M	Training Unit is responsible for Soldiers equipment requirements to meet the weather. Training unit emplaces and puts into operation wet bulb and monitors it throughout the day. Soldiers briefed on severe weather action plan. NCOIC ensures wet bulb is operational. OIC remains in constant contact w/ range Control VIA FM for weather updates.	<p><b>How:</b> MCoE 350-19, pg 2-18, Range SOP, FM 23-30 and AR 385-63</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	L
Range Execution	Mandatory training prior to Live Bay	M	Soldiers are taught proper grip and throwing techniques during classroom portion of training. Distance and Accuracy (DNA) is reinforced during Mock Bay. All Soldiers must successfully complete DNA and Mock Bay prior to entering the live bay. Soldiers and training units will not be allowed to conduct any other training until live bay is complete in order to ensure techniques taught during mock bay are utilized by the Soldiers during live bay. The training unit will ensure that one of the top three (XO, 1SG, CO) are in the tower during all live bay procedures. Pit NCOs will be SSGs certified by the range OIC and Company Commander. Pit NCO's will certify IAW enclosure A of the A 3/16 CAV Instructor Certification SOP.	<p><b>How:</b> Range POI, HG1 TSP and FM 23-30 MCoE Reg 350-19, DA PAM 385-30, AR 385-10, AR 385-63</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	L
Range Execution	Cadre Heat Mitigation	H	OIC implement uniform alteration to minimize heat accumulation. Rotate Cadre at live bay and allow Plate Carriers as an alternate to IOTV	<p><b>How:</b> IAW - GTA 5-12-8, Unit SOP, BDE policy AR 350-10, AR 350-6</p> <p><b>Who:</b> Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants</p>	M
Expenditure of excess ammunition (SPENDEX)	Shortage of fiscal ammunition	M	Soldiers will only throw two live grenades and excess ammunition will be turned in or expended by range cadre. Units will not open ammo until Cadre get an accurate count of trainees	<p><b>How:</b> Range POI, FM 23-30 and AR 385-3, AR 385-10, DA PAM 385-30</p> <p><b>Who:</b> : Dianda Range OIC, RSO, Dianda Range Cadre, Unit Leadership, Drill Sergeants, Individual Soldiers</p>	L
	---NOTHING FOLLOWS---			<p><b>How:</b></p> <p><b>Who:</b></p>	
				<p><b>How:</b></p> <p><b>Who:</b></p>	
				<p><b>How:</b></p> <p><b>Who:</b></p>	

# DELIBERATE RISK ASSESSMENT WORKSHEET

## DELIBERATE RISK ASSESSMENT WORKSHEET

<b>Risk Assessment Matrix</b>		<b>Probability (expected frequency)</b>				
		Frequent: Continuous, regular, or inevitable occurrences	Likely: Several or numerous occurrences	Occasional: Sporadic or intermittent occurrences	Seldom: Infrequent occurrences	Unlikely: Possible occurrences but improbable
<b>Severity (expected consequence)</b>		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>Catastrophic:</b> <i>Death, unacceptable loss or damage, mission failure, or unit readiness eliminated</i>	<b>I</b>	<b>EH</b>	<b>EH</b>	<b>H</b>	<b>H</b>	<b>M</b>
<b>Critical:</b> <i>Severe injury, illness, loss, or damage; significantly degraded unit readiness or mission capability</i>	<b>II</b>	<b>EH</b>	<b>H</b>	<b>H</b>	<b>M</b>	<b>L</b>
<b>Moderate:</b> <i>Minor injury, illness, loss, or damage; somewhat degraded unit readiness or mission capability</i>	<b>III</b>	<b>H</b>	<b>M</b>	<b>M</b>	<b>L</b>	<b>L</b>
<b>Negligible:</b> <i>Minimal injury, loss, or damage; little or no impact to unit readiness or mission capability</i>	<b>IV</b>	<b>M</b>	<b>L</b>	<b>L</b>	<b>L</b>	<b>L</b>
<b>Legend:</b> EH – extremely high risk    H – high risk    M – medium risk    L – low risk						
<b>13. RISK ASSESSMENT REVIEW (Required when assessment applies to ongoing operations or activities)</b>						
a. Date	b. Last Name	c. Rank/Grade	d. Duty Title/Position	e. Signature of Reviewer		
<b>14. FEEDBACK AND LESSONS LEARNED</b>						
<b>15. ADDITIONAL COMMENTS OR REMARKS</b>						

## DELIBERATE RISK ASSESSMENT WORKSHEET

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

<p><b>1. Mission/Task Description:</b> Briefly describe the overall Mission or Task for which the deliberate risk assessment is being conducted.</p>	<p><b>10. Overall Risk After Controls are Implemented:</b> Assign an overall residual risk level. This is the highest residual risk level (from block 9).</p>
<p><b>2. Date</b> " OO &lt;&lt;&lt;&lt; : Self Explanatory.</p>	<p><b>11. Supervision Plan and Recommended Course of Action:</b> 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.</p>
<p><b>3. Prepared By:</b> Information provided by the individual conducting the deliberate risk assessment for the operation or training .  <b>Legend:</b> UIC = Unit Identification Code; CIN = Course ID Number; OPORD = operation order; DSN = defense switched network; COMM = commercial</p>	
<p><b>4. Sub-task/Sub-Step of Mission/Task:</b> Briefly describe all subtasks or substeps that warrant risk management.</p>	<p><b>12. Approval/Disapproval of Mission/Task:</b> Risk approval authority approves or disapproves the mission or task based on the overall risk assessment, including controls, residual risk level, and supervision plan. Space provided for authority to provide additional guidance; use continuation page if needed.</p>
<p><b>5. Hazard:</b> Specify hazards related to the subtask in block 4.</p>	<p><b>13. Risk Assessment Review:</b> 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.</p>
<p><b>6. Initial Risk Level:</b> 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.</p>	
<p><b>7. Control:</b> Enter risk mitigation resources/controls identified to abate or reduce risk relevant to the hazard identified in block 5.</p>	<p><b>14. Feedback and Lessons Learned:</b> 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.</p>
<p><b>8. How to Implement / Who Will Implement:</b> 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.</p>	<p><b>15. Additional Comments or Remarks:</b> Preparer provides additional comments, remarks, or information to support the risk assessment. If block 15 is used as a continuation of block 14, strike through the block number and title.</p> <p><b>Additional Guidance:</b> Block 4-9 continuance page may be reproduced as necessary for processing of all subtasks/ substeps of the mission/task. If a complete page is not utilized, write "NOTHING FOLLOWS" on the first unused row, immediately after the final item assessed.</p>
<p><b>9. Residual Risk Level:</b> After controls are implemented, determine resulting probability, severity, and residual risk level.</p>	



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

21 August 2014

MEMORANDUM FOR Commander 3/16<sup>th</sup> CAV, Attn: SFC Phillip Wedge, Fort Benning,  
GA 31905

SUBJECT: 3-16th CAV Hand Grenade Live Bay on Dianda Range DRAW Safety  
Review

1. References.

- a. 3-16th CAV Hand Grenade Live Bay on Dianda Range DRAW Safety Review
- b. Army Regulation 385-10, The Army Safety Program, 27 November 2013.
- c. Army Regulation 385-63, Range Safety, 30 January 2012.
- d. Department of the Army Pamphlet 40-501, Hearing Conservation Program, 10 December 1998.
- e. Department of the Army Pamphlet 385-10, Army Safety Program, RAR 19 January 2010.
- f. Department of the Army Pamphlet 385-30, Mishap Risk Management, RAR 01 February 2010.
- g. Department of the Army Pamphlet 385-63, Range Safety, 16 April 2014
- h. Army Techniques Publication 5-19, Risk Management, 14 April 2014
- i. MCoE Regulation 350-19, Range and Terrain Regulation, 01 March 2013

2. Document received on 18 August 2014.

3. Concur w/comment.

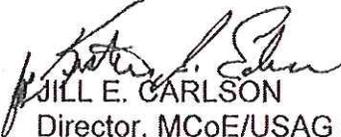
a. DRAW, Block 6 & 9, pg 4. "Hearing Loss", recommend that the Initial and Residual Risk Levels be elevated to "HIGH" and "MODERATE" due to the decibel level of the munition when it goes off.

ATZB-SO

SUBJECT: 3-16th CAV Hand Grenade Live Bay on Dianda Range DRAW Safety Review

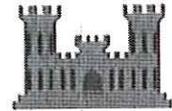
b. DRAW, Blocks 6 & 9, pg 5. "Cadre Heat Mitigation", recommend that the Initial Risk Level and Residual Risk Levels be elevated to "HIGH" and "MODERATE" due to the time of year, probability of injury, and PPE worn. Cadre are as susceptible to heat injuries as any other Soldier on Fort Benning.

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](mailto:michael.w.risher.civ@mail.mil)

  
JILL E. CARLSON  
Director, MCoE/USAG Safety



# RECORD OF ENVIRONMENTAL CONSIDERATION (REC)



Date Submitted: 8/25/2014

EMD Number: 1423717

Project#: Unknown

Project Title: Hand Grenade and short range marksmanship

Description of proposed action:

During the block of instruction given on the Dianda Hand Grenade Range, Soldiers will be required to employ live hand grenades, identify hand grenades, conduct a practical exercise and Mock Bay exercise, and conduct grenade qualification on the Hand Grenade Qualification Course

Project Location:

Dianda Hand Grenade Range

Amount, Description, Location of Disturbance/Digging:

Lanes consisting of sand will be utilized for live hand grenades.  
Areas will be filled and dragged after utilization.

Number of Personnel:

240

Type of Ammunition:

M67, M228 Practice  
Fuze, MK3A2, M18,  
M14. Live

Number/Types of Trees:

None

Size of Project Area:

Duration of Action: Start: 10/1/2014 Stop: 9/30/2015

Proponent: donaldflynn

706-626-1570

Organization/Unit: A CO 3-16 CAV

Number/Types of Vehicles:

Number of vehicles: Varied  
Types of vehicles: 5 Ton Vehicles, HMMWV's, GSA, 2.5T Truck, FLA  
No-Vehicles will be going off road.

\*\*\*\*\*  
DECISION: Concur with conditions

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

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

## REC APPROVED THROUGH 30 SEPTEMBER, 2015

Air Management Programs

Conditions:

Tannis Danley (706 545 1298), 9/5/2014

This is necessary training that should be conducted however, with the use of Smoke generators, Smoke Grenades, C/S gas, portable power generators, and smoke pots, special considerations apply to the compartment boundary locations as not to let smoke or gas travel into adjacent communities or roadways both on and off the Installation. Range safety should be informed and utilized for managing training with smoke/gas devices as weather conditions can change hourly. It is important to consult MCoE Regulation 350-19 prior to training activity. Please review particular training restrictions found in section 5-20 of the Regulation. If you need assistance feel free to contact the Air Quality Program, shannon.t.danley.ctr@mail.mil or call 706 545-1298.

Cultural Resources - Archeological

None

Edward Howard (706 545 1898), 9/2/2014

Noise

Conditions:

Ellis Leeder (706 545 2400), 8/27/2014

This is training operations request for training. If there is any operational noise complaints received, the Environmental Management Division Installation Operational Noise Monitoring Program (IONMP) and or Public Affairs Office (PAO) programs will investigate and then recommending operational noise mitigation actions to the appropriate personnel for the training actions. This 144r must be present at the training site when occupying compartment or ranges.

EMD Number: 1423717

IJO#

Project Title: Hand Grenade and short range marksmanship

CWA - Training

Conditions:

Leah Ropski (706 626 0492), 8/26/2014

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.

Training - Minor Land Disturbance: Good housekeeping measures should be implemented to control soil erosion; reduce the amount of pollution in runoff, and to prevent or minimize pollution of storm water in these training areas. These include measures to prevent pollutants, sediment from land disturbance operations, and hazardous materials/waste from coming in contact with storm water and/or reaching tributaries of nearby state waters. To minimize damage to additional land, stay within already existing disturbed areas. Avoid any new land disturbances on vegetated areas, and do not remove and trees or vegetation (as applicable). All land disturbance activities should be limited to areas already disturbed if possible. Recommended distance of approximately 50 (17 meters) from any water source.

Hazardous Materials/Waste

Conditions:

Carlos Ariasochoa (706 545 1857), 8/26/2014

Unit must ensure that all MDI -Demolitions to include special military charges are managed IAW MCOE 350-19 sec 5-4 Munitions Management, 5-5 Demolitions and explosives, 7-2 (a) (b) Communications Requirements. Defective, misfired, or otherwise unserviceable munitions must be managed IAW/MCOE Reg.350-19-5-10, Para 9-2 (Proper management of Misfired munitions). All excess, munitions must be returned to the Ammunition Supply Point after the field exercise is completed. Rubbish, empty containers and other waste (including used smoke/C2 canisters) should be removed from the training area. A dud, defective, misfired, or otherwise unserviceable munitions shall not be removed from the range; it will be marked, called into range control and will be properly disposed of by EOD personnel IAW/MCOE Reg. 350-19, 23 Jul 2010.

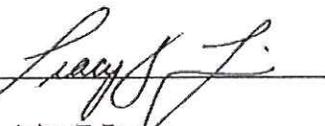
Any wastes generated must be evaluated for their hazardous characteristics and disposed of in accordance with all Federal, State and Fort Benning Hazardous Waste Regulations. Appropriate precautions must be taken to prevent hazardous material spills. Adequate quantities of spill response supplies must be on hand while work is being performed. If a spill occurs use notification procedures as outlined in the Fort Benning Hazardous Waste Management Plan Chapter 14. Contain and clean up any spill according to guidance provided by the Environmental Programs Management Branch. EPMB provides an 8 hours course covering Hazardous Materials/Waste Management, Hazardous Waste Minimization, Safety, and Pollution Prevention.

Natural Resources - RCW

None

Michael Barron (706 544 7080), 8/25/2014

Signature

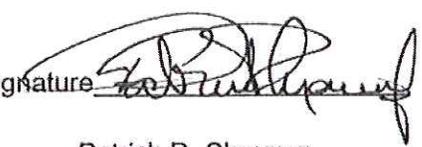


John E Brown  
NEPA Program Manager

Date

9 SEP 2014

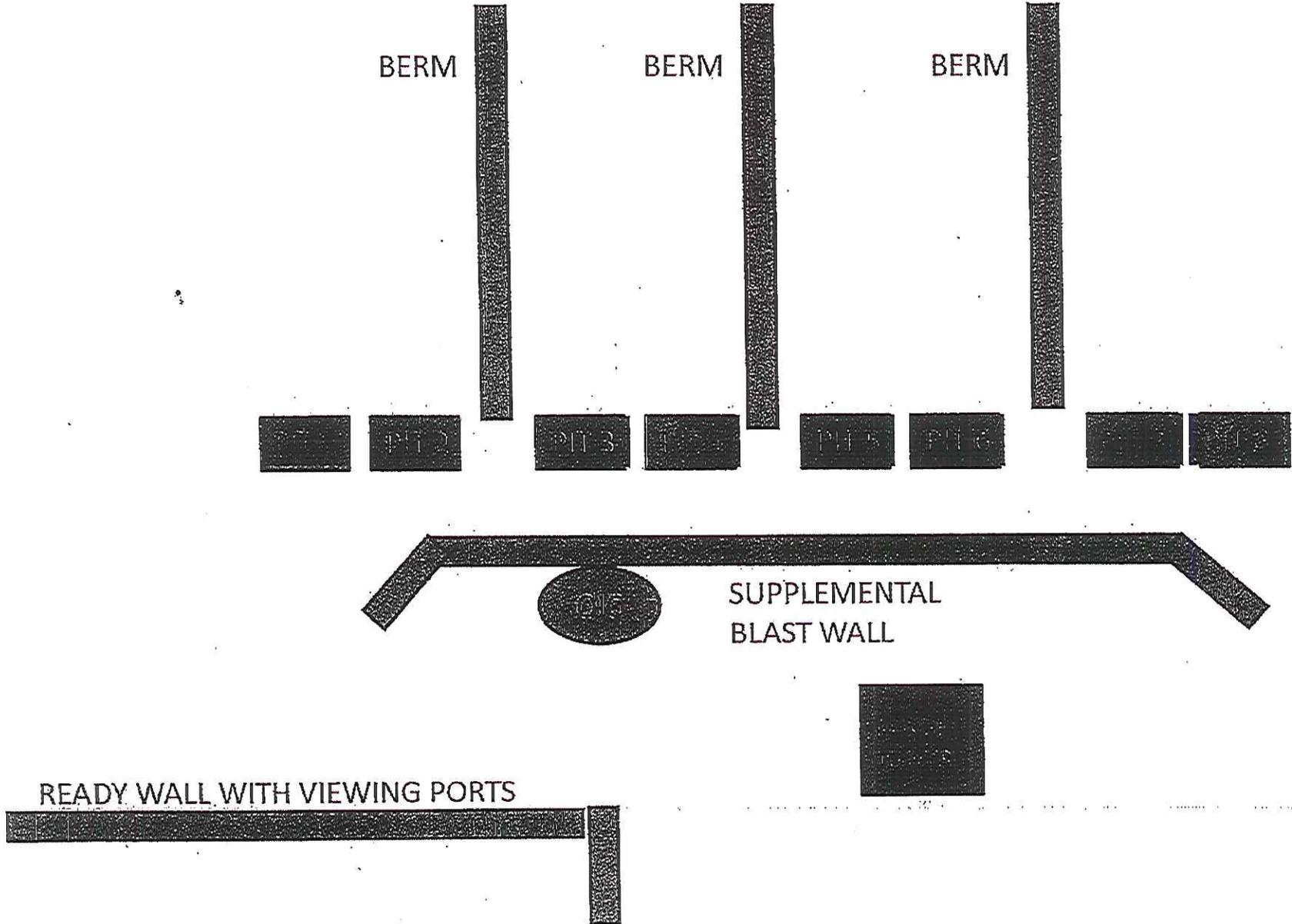
Signature



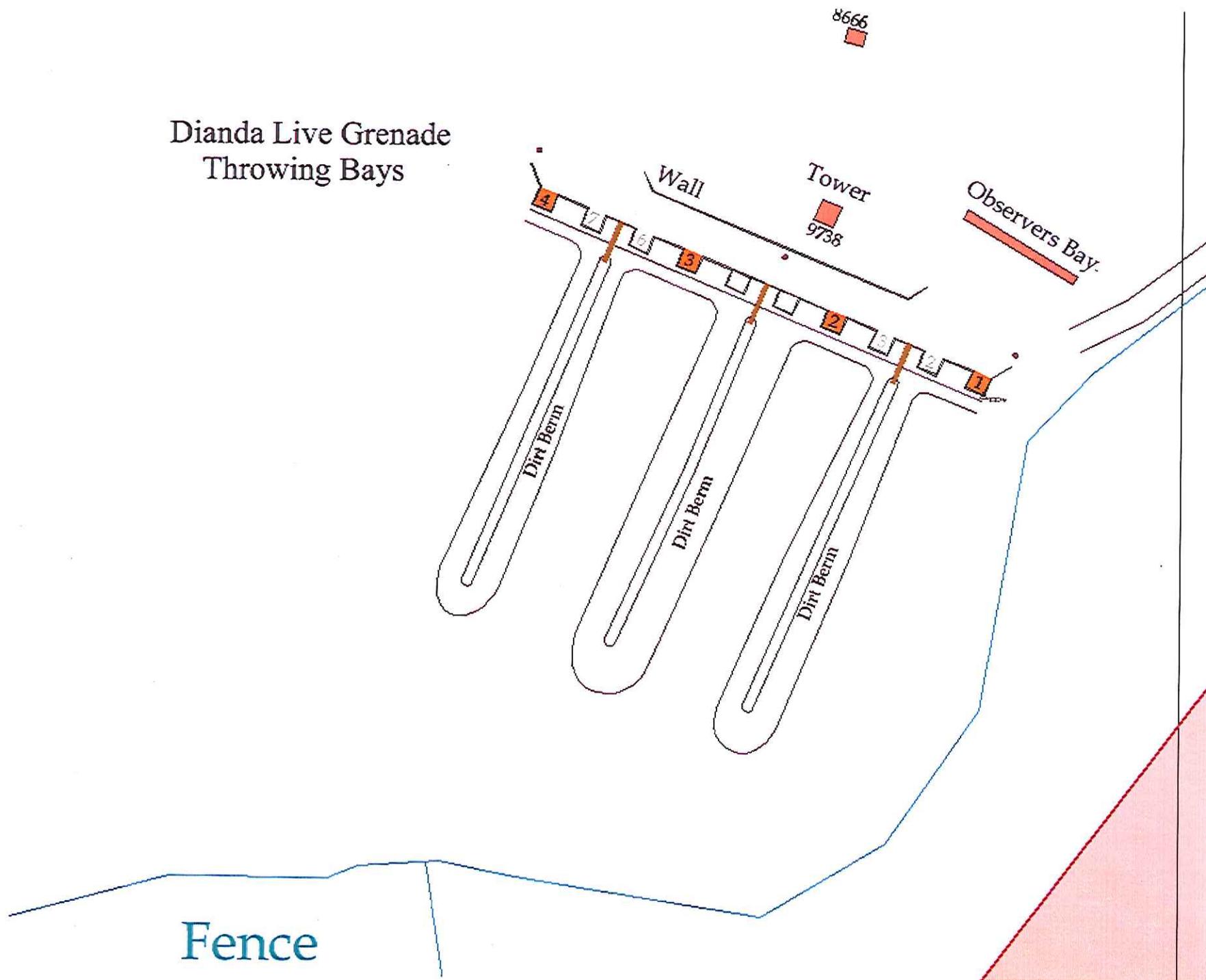
Patrick R. Chauvey  
EPMB Chief

Date

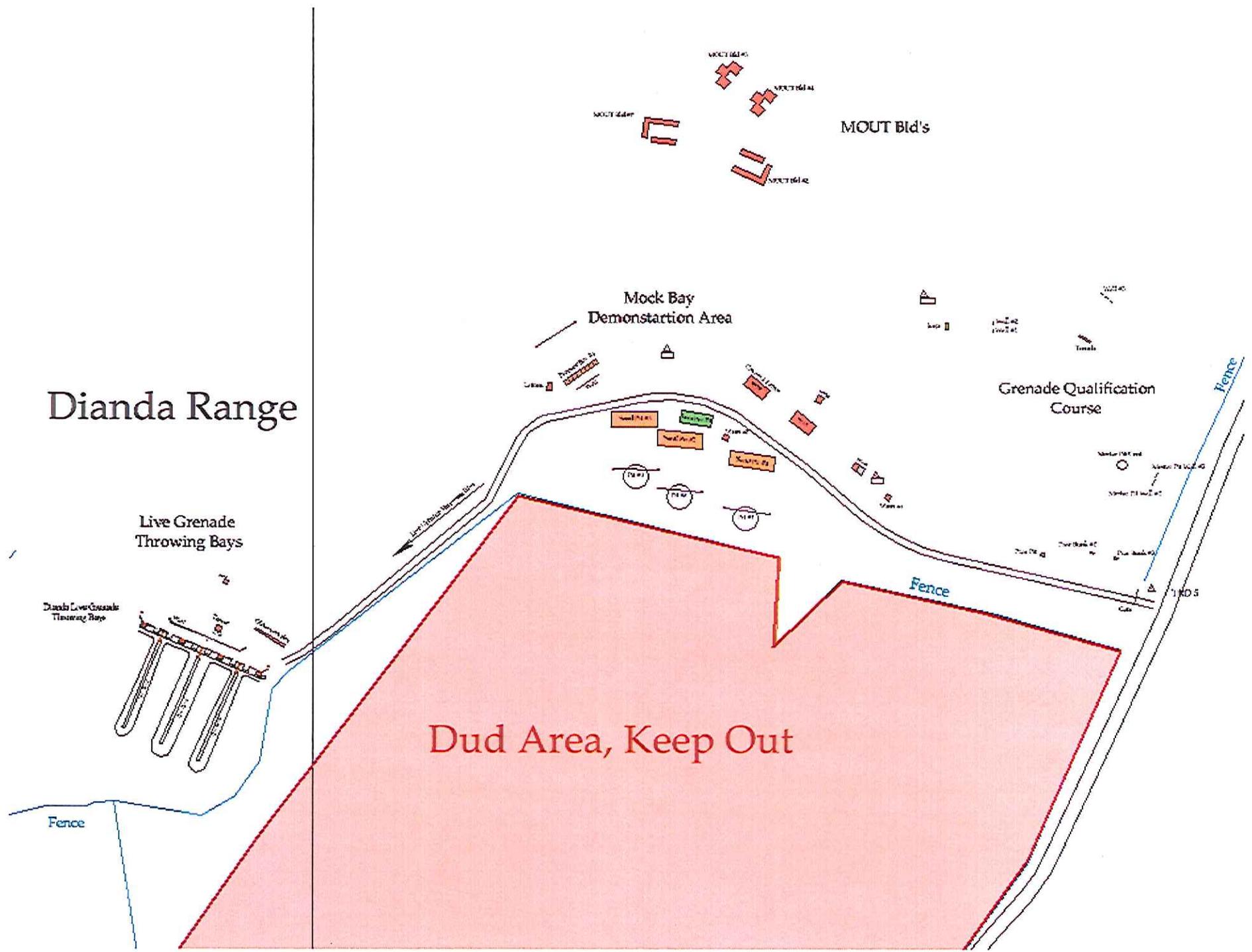
09 SEP 2014



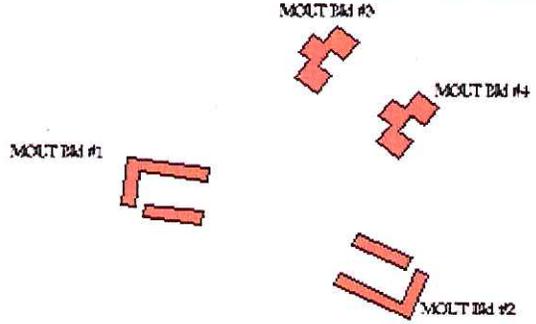
Dianda Live Grenade  
Throwing Bays



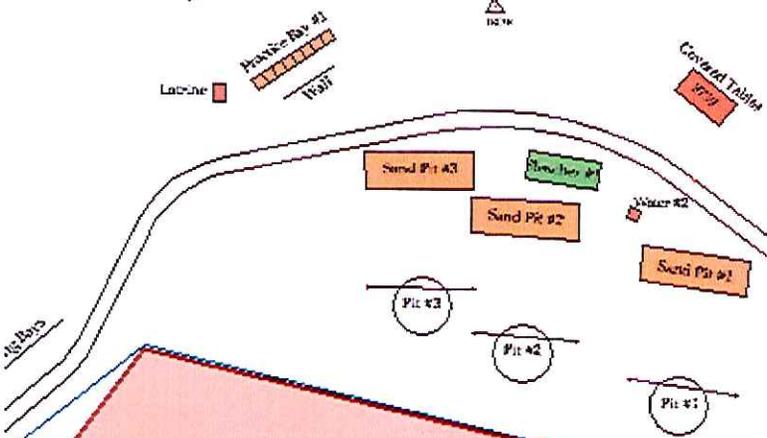
# Dianda Range



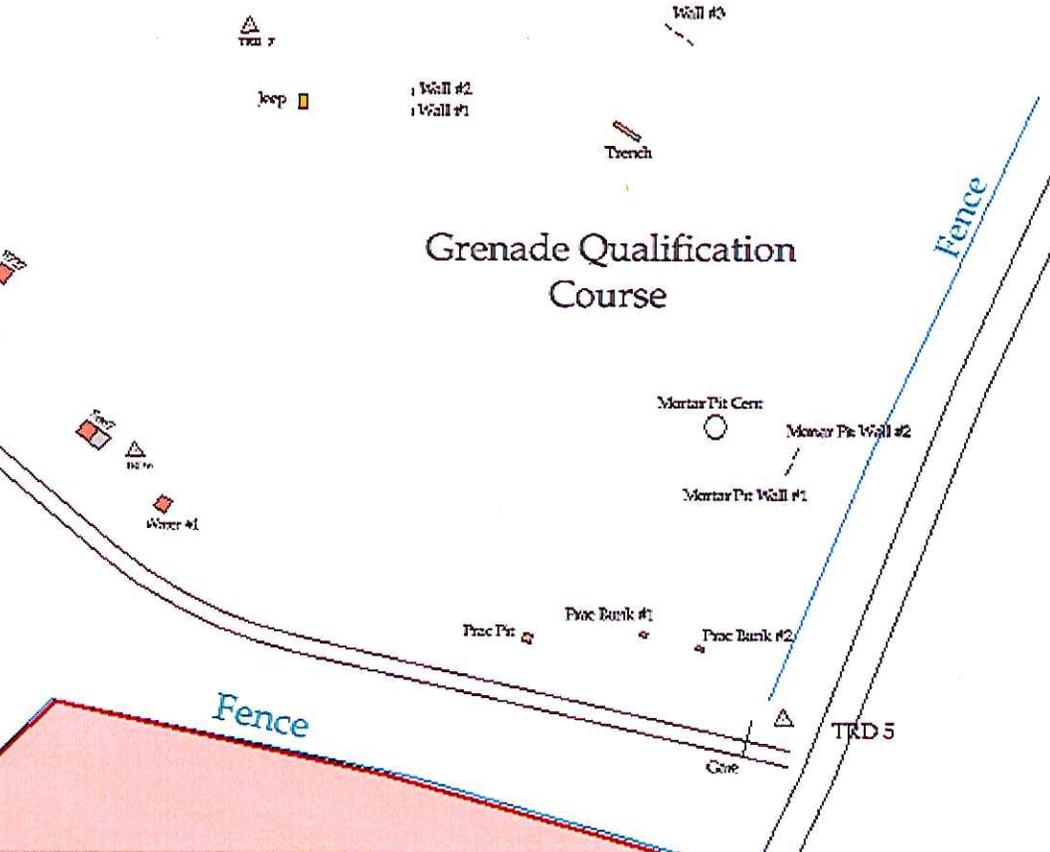
MOUT Bld's



Mock Bay Demonstration Area



Grenade Qualification Course



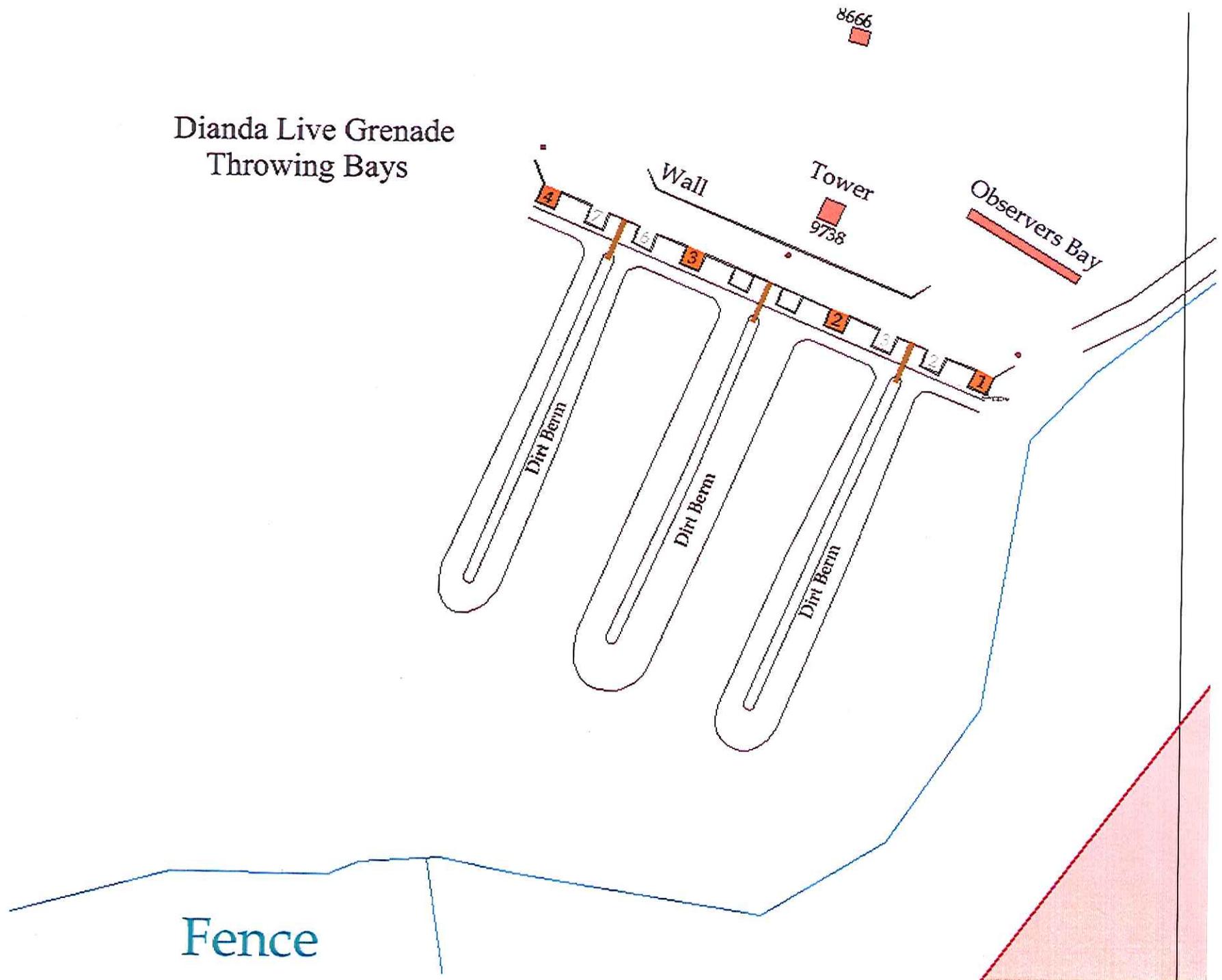
Dud Area, Keep Out

Fence

Fence

TRD 5

# Dianda Live Grenade Throwing Bays



# Dianda Range

MOUT Buildings

Guard Position (FA 9712 8278)  
When Live Grenade Throwing  
Bays Are Used

Mock Bay  
Demonstration Area

Hand Grenade  
Qualification Course

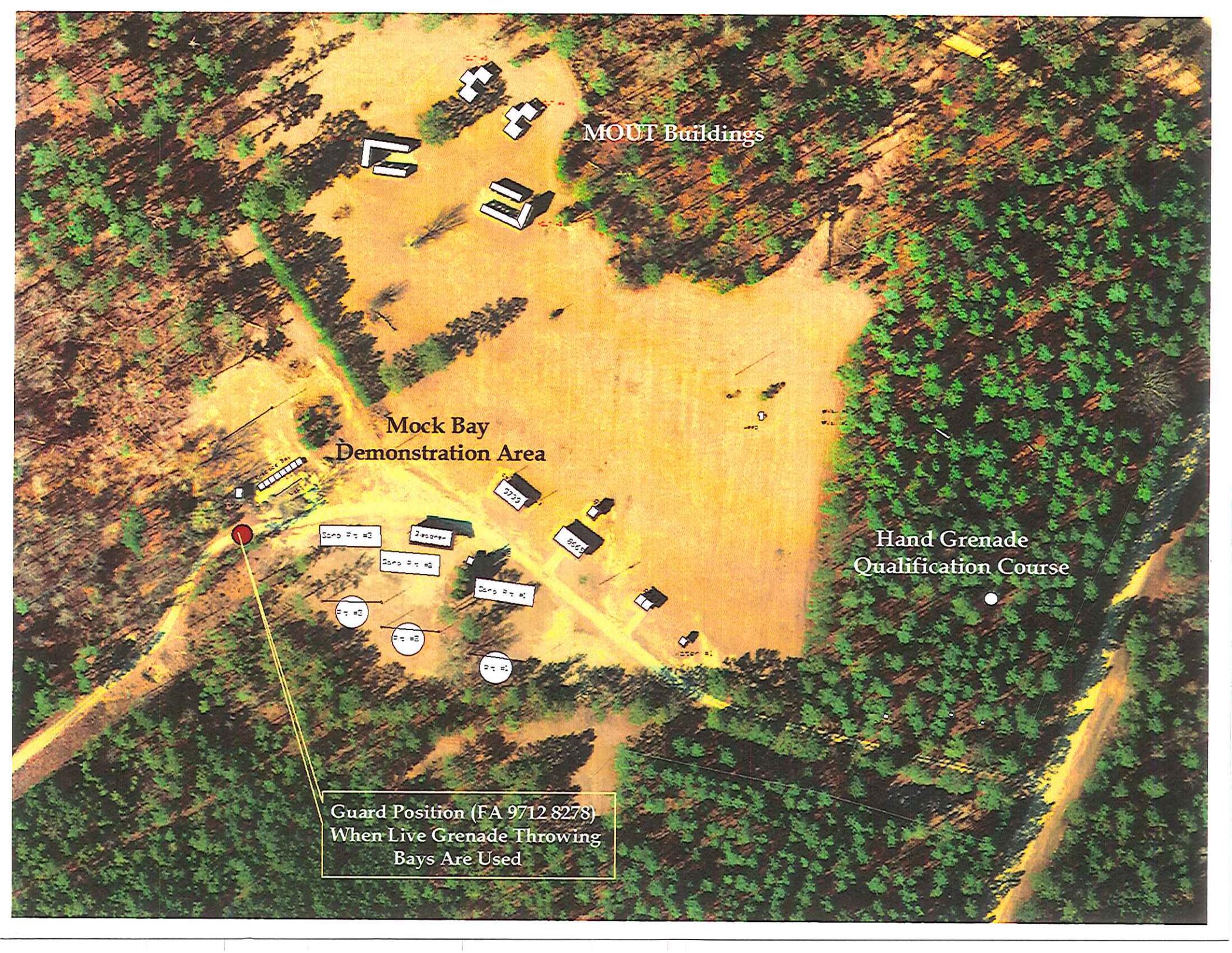
Live Grenade  
Throwing Bays



Guard Position (FA 9712 8278)  
When Live Grenade Throwing  
Bays Are Used

Dianda Range Live Grenade  
Throwing Bays



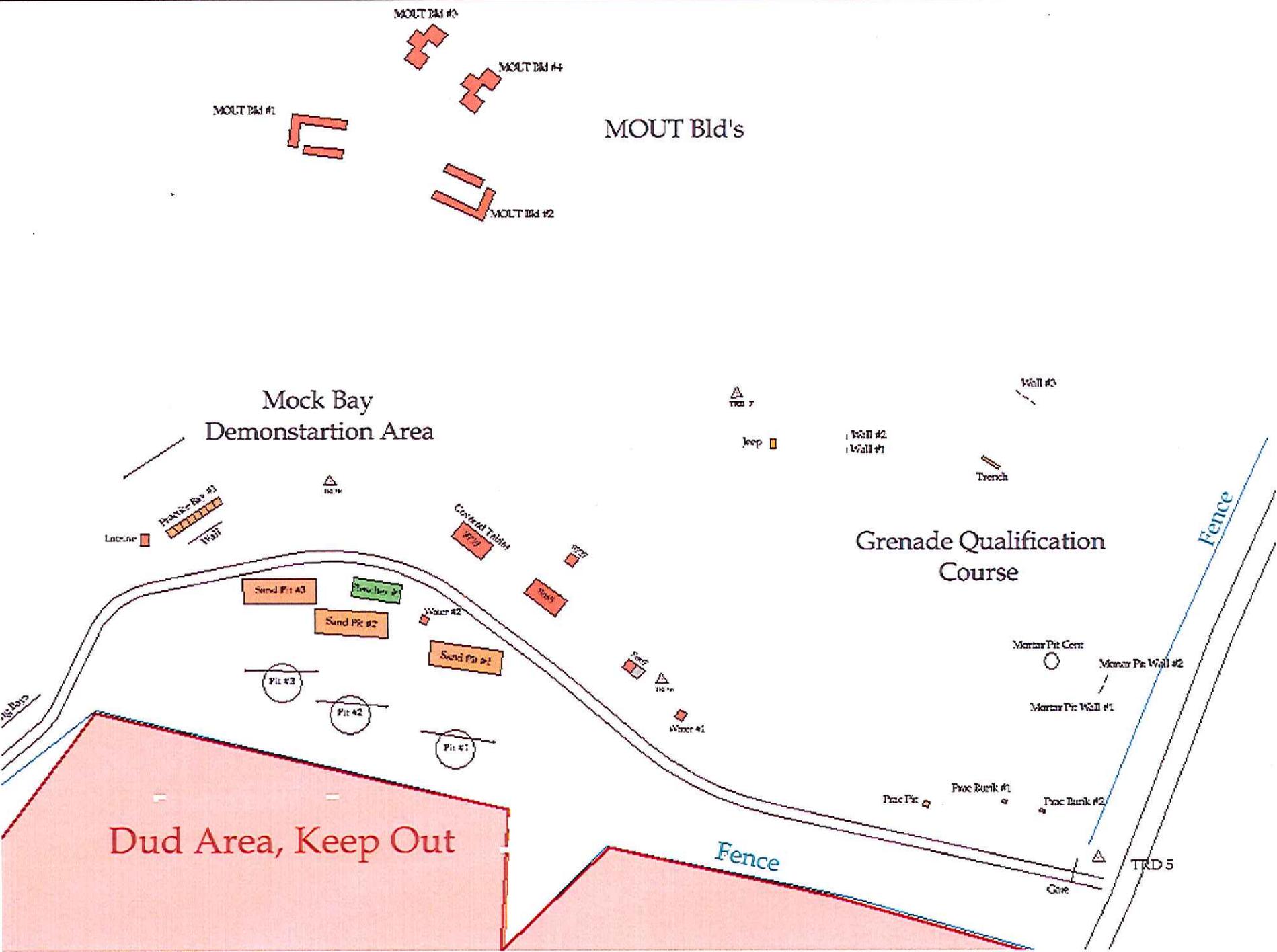
An aerial photograph of a training area, likely a mock bay, surrounded by a dense forest of pine trees. The ground is a mix of dirt and grass. Several structures are scattered across the area, including a cluster of white buildings at the top, a larger structure in the middle, and several smaller buildings and circular markers in the lower half. A red dot on the left is connected by a yellow line to a text box at the bottom. Labels in white text identify various parts of the area.

MOUT Buildings

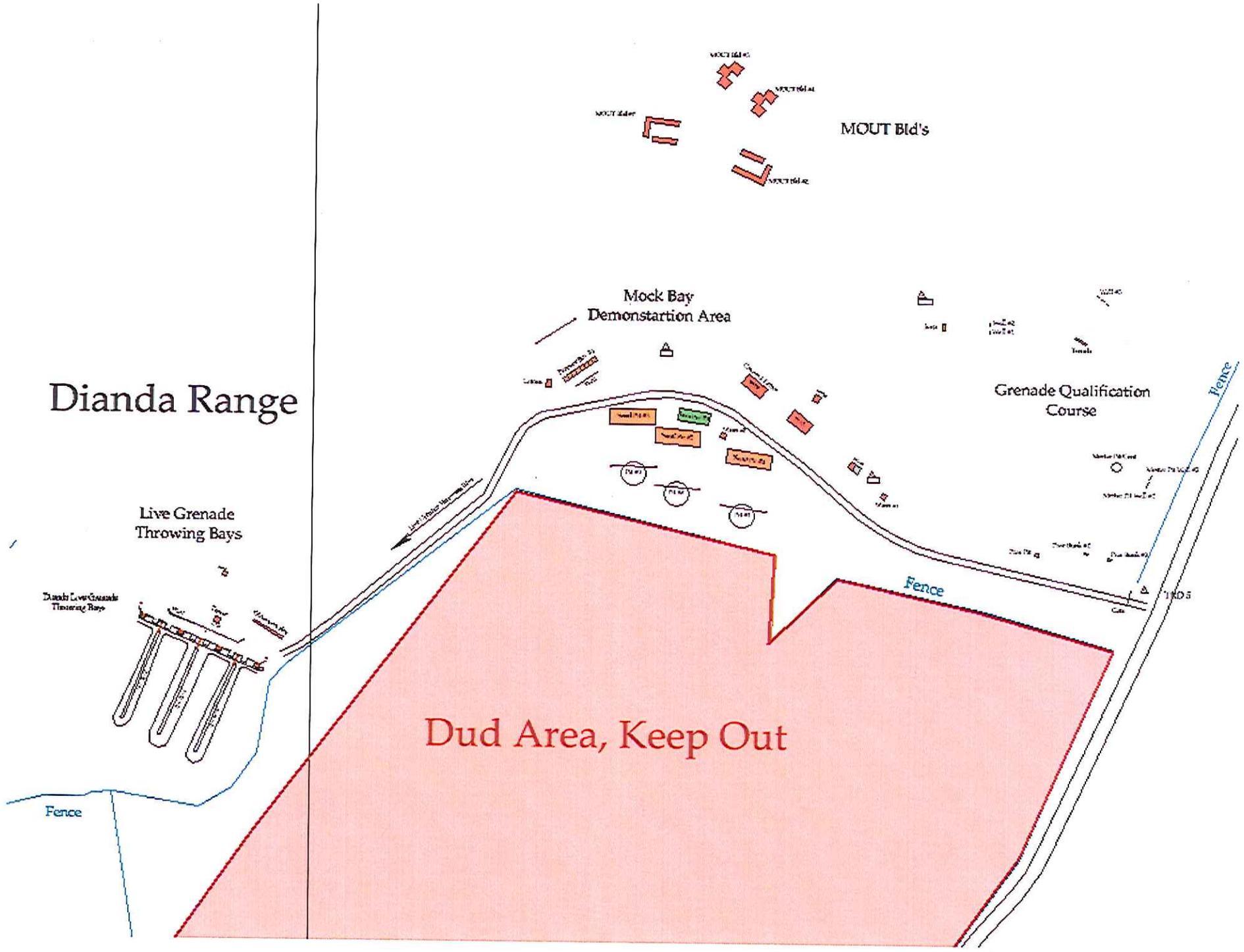
Mock Bay  
Demonstration Area

Hand Grenade  
Qualification Course

Guard Position (FA 9712 8278)  
When Live Grenade Throwing  
Bays Are Used



# Dianda Range



MOUT Bld's

Mock Bay Demonstration Area

Grenade Qualification Course

Live Grenade Throwing Bays

Dud Live Grenade Throwing Bays

Dud Area, Keep Out

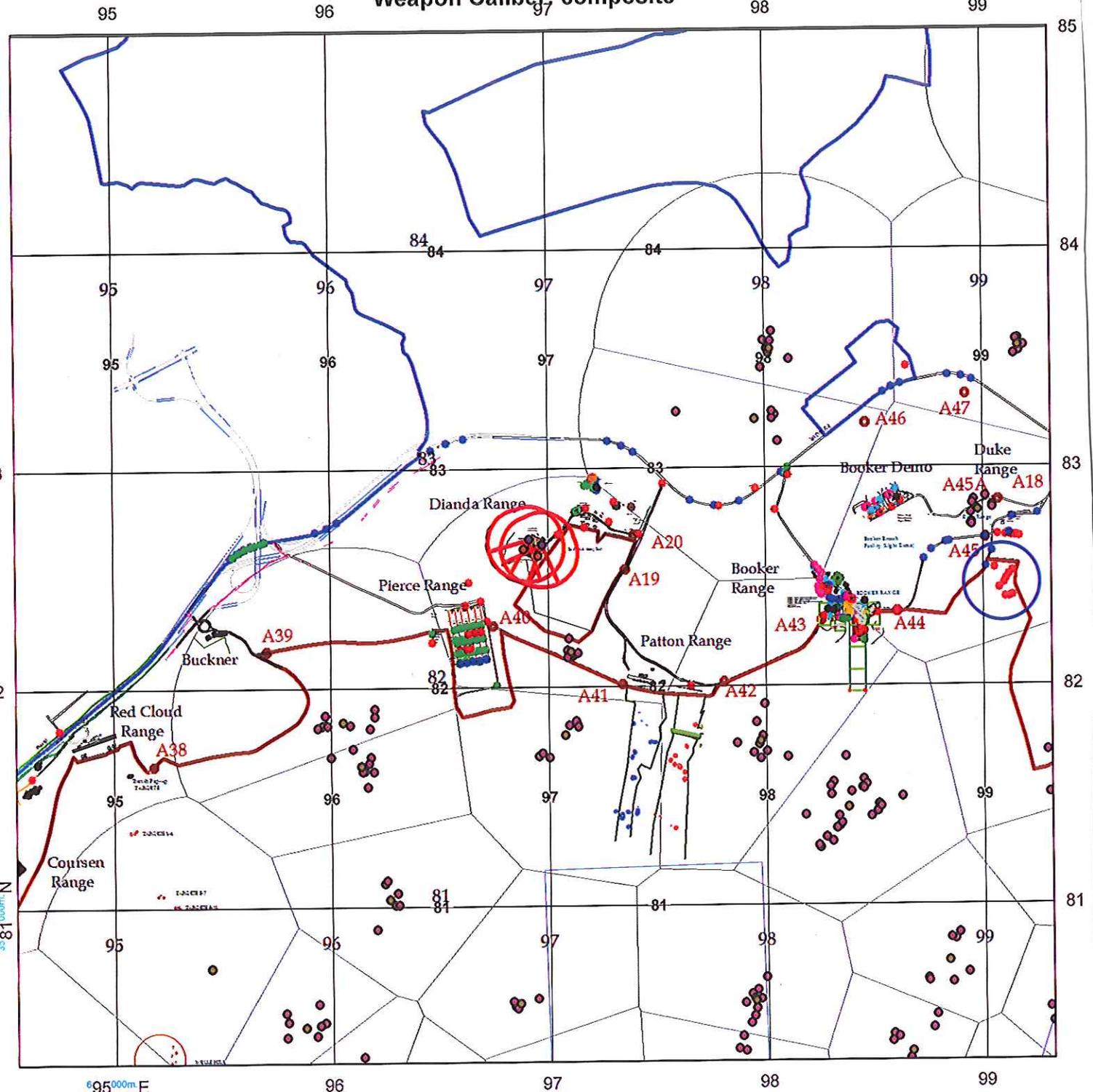
Fence

Fence

Fence



**FOUO Unclassified**  
**Weapon Type: SMALL ARMS**  
**Weapon Caliber: composite**



Range Manager Signature Authority: Mr. <i>Dah</i>	Date: <i>18 Aug 15</i>		
Approving Authority: Mr. Whitehead	Date: <i>18 Aug 15</i>		
SDZ Created By:	Date: 08/18/2015	Unit: 3-16 CAV	Phone: 706-626-6598
SDZ Name: Dianda, 3-16 CAV Log# 8-5-15	FP: 16SFA9691382677		
Installation: Fort Benning, GA.	TP: 16SFA9695382600		
Range Name: Ware	TP: 16SFA9688882633		
Range Officer:			
Direct Fire			
Aerial Target			
FP: 16SFA9697382652			