

**FIRING/NONFIRING DATA**

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

<b>TO:</b> Chief, Range Division, Directorate of Plans, Training, Mobilization and Security Fort Benning, GA 31905	<b>Date:</b> 2 April 2015 <b>Range:</b> Maertens Range <b>Title:</b> Sniper Live Fire with RHTT <b>Problem No:</b> N/A
<b>THRU:</b> 1-29th Infantry Regiment Fort Benning GA, 31905	<b>FROM:</b> S-3, 1-29th Infantry Regiment Fort Benning GA, 31905

Log # 4-11-15

**SECTION I, TYPE OF TRAINING**

a. Live Fire     
  b. Non-live Fire     
 CP/Controller Coordinates: GA 0011 8214

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

Coordinates	Type	Model/DODAC	Size of Charges
N/A			

**SECTION III, WEAPONS/AMMUNITION REQUESTED**

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

**SECTION IV, LIVE FIRE EXERCISES Attach the following:**

**SECTION V, NON-LIVE FIRE TRAINING**

<input checked="" type="checkbox"/> Scenario of training to be conducted: <input checked="" type="checkbox"/> Sketch of area: <input checked="" type="checkbox"/> Risk Assessment: <input type="checkbox"/> Attach FB Form 350-19-2-E-R if Mortar or artillery is being fired:	<b>Training area(s) to be occupied:</b> Maertens Range <input type="checkbox"/> Scenario of training to be conducted: <input type="checkbox"/> Sketch of area(s) to be occupied: <input type="checkbox"/> Risk Assessment:
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Name/rank of requesting officer: Anthony W. Kizziah, SFC	Name/rank of Major Unit S3/Commander: Nicholas P. Privette, CPT. B Co. 1-29th IN Regt.
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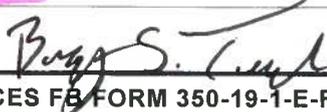

**SECTION VI, FOR RANGE DIVISION USE**

**DATE:** 4 JUNE 2015

<b>TO:</b> 1-29th Infantry Regiment Fort Benning GA, 31905	<b>FROM:</b> Range Division, Directorate of Plans, Training, Mobilization and Security Fort Benning, GA 31905
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<b>a. Roadblocks to be closed:</b> <b>b. Road(s) to be closed/road barrier locations:</b> <b>c. Remarks:</b> <b>d. This approval expires:</b>	A18, A22, A24, A25, A26, A27, A49, A50   31 May 2017
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Chief, Range Division  
Directorate of Plans, Training, Mobilization and Security





DEPARTMENT OF THE ARMY  
BRAVO COMPANY, 1<sup>ST</sup> BATTALION 29<sup>TH</sup> INFANTRY REGIMENT  
316<sup>TH</sup> CAVALRY BRIGADE  
BLDG 4883, 10440 BACKSTROM RD.  
FORT BENNING, GEORGIA 31905-4420

ATZK-SDB-B

13 April 2015

MEMORANDUM FOR RECORD

SUBJECT: Maertens Range Live Fire demonstration with T40 Robotic Human Type Targets (RHTT)

1. Reference:

a. MCoE Regulation 350-19, Range and Terrain Regulation, 17 July 2013

b. Policy Memo 385-63-10, Installation Use of Steel Targets in Marksmanship Training, 3 Dec 2014.

2. Purpose: The purpose of this demonstration is to show the RHTT capabilities by replicating the unpredictable enemy threat on the battlefield. The firers will conduct individual live fire tasks to demonstrate the capability of the RHTT. This demonstration will be conducted during normal POI training.

3. Range and Terrain Requirements: Maertens Range

4. Weapons and Ammunition Types:

a. M110, 7.62mm, AA11

b. M4, M16A4, M16A2; 5.56mm Ball, AA33, A059

c. M2010, 300 WIN MAG, A191

5. The RHTT Targets will be mapped to Maertens Range prior to execution. The area to be mapped will be between the pit berm and the 500 yard berm. Soldiers will not proceed past the 600 meter line. Lanes 6 thru 15 will be used for this event. Unit will abide by Policy Memo 385-63-10, Installation Use of Steel Targets in Marksmanship Training, 3 Dec 2014.

6. Non-Fire Stress events

a. The Soldiers will conduct non-fire stress events prior to proceeding to the firing line. The non-fire stress event will be conducted between 150 meters behind the firing line up to the firing line. Soldiers will be carrying M2010/M110/M16/M4s that are not

ATZK-SBD-B

SUBJECT: Maertens Range Live Fire demonstration with T40 Robotic Human Type Targets (RHTT)

loaded and confirmed clear prior to the non-firing event. Immediately after the non-firing event Soldiers will proceed to the firing line to conduct the live fire event.

#### 7. Live Fire Demonstration

a. This live fire exercise demonstration of the RHTTs will be coordinated by a command post (CP) just behind the yard line being used as a firing line. The ammunition supply point, CASEVAC vehicle, and transportation assets will be located 35 meters behind the firing line with the CP.

b. The RSO/OIC will ensure that all personnel firing are briefed and understand the limits of the range prior to engaging targets on the range. All static targets and RHTTs will be a distance of 100-800 yards from the firing line and all personnel will engage these targets utilizing the M2010, M110, M4, M16A4, and M16A2 weapon systems. **Personnel will also understand that they will only engage targets that are inside their firing lane.** Standard static and moving targets will be engaged in accordance with current Maertens range packet (Log# 1-9-15).

c. Soldiers will use various barricades at the firing line. They will fire from the standing, sitting, kneeling, and prone positions. There is no automatic/burst firing on this range. **(Single Shot Only)**

d. There will be a total four safeties on the firing line. The Soldiers will follow the instructions of all Safeties on the firing line. The Safeties will issue ammunition on the firing line. A Safety or Soldier will always stay with unattended weapons and ammunition that are on the firing line. The Safety will clear each Soldier's weapon before they proceed off the firing line. Range OIC will give "lock and load" and "ready to fire" commands and then Soldiers will engage targets down range inside their firing lane.

#### 8. Robotic Human Type Targets (RHTT) will be used during the demonstration.

a. These automated targets will be operated by a trained operator from the Asymmetric Warfare Group (AWG) in accordance with enclosed safety release.

b. The RHTTs will be programmed and mapped to Maertens range by an AWG RHTT operator and tested to ensure all targets are within range limits and barber poles.

c. When a RHTT malfunction occurs, the range OIC/RSO will call a cease-fire on the range, request a self imposed check fire through Range Division Alpha Base and then request clearance to go down range with an AWG RHTT Operator to make an assessment of the target. The range will not go "Hot" again until all personnel are cleared of down range and Range Division Alpha base has cleared range of check fire status.

ATZK-SBD-B

SUBJECT: Maertens Range Live Fire demonstration with T40 Robotic Human Type Targets (RHTT)

9. The point of contact for this memorandum is SFC Kizziah, the Sniper Course OPS NCO, at 544-6505.

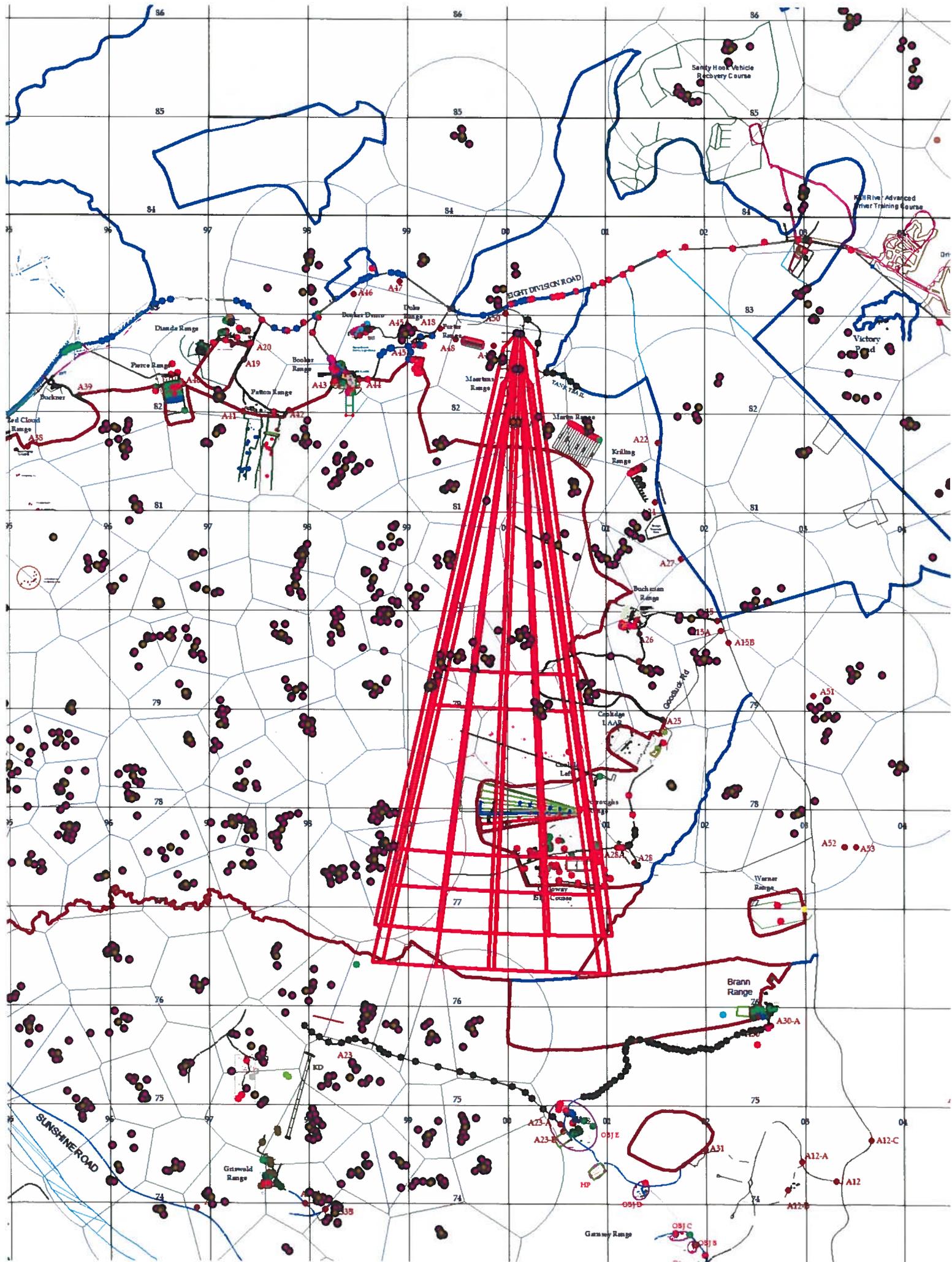


NICHOLAS P. PRIVETTE

CPT, IN

Commanding





**MEARTENS RANGE LOG# 4-11-15 ROADBLOCK LIST , 21 Apr 2015**

BLOCK	GRID	LOCATION	TYPE	BLOCK	GRID	LOCATION	TYPE
A-1	911 792	Across firebreak 200m down Fiske Range at right end of KD berm. Permanently closed.	Cable	A-28	012 774	20 meters off Yankee road on south side of Galloway range.	Gate
A-2	910 783	Off Sightseeing Rd on unnamed trail opposite of entrance to LRC.	Gate	A-28A	011 776	30 meters south of Range Tower	Gate
A-4	925 766	Off Sunshine Rd 1,200 m W. of entrance to Grandstaff range.	Gate	A-30	026 758	Across fire break leading to Garnsey Range. 140m SW of Brann Flat Range.	Gate
A-5	936 762	Across entrance road to Grandstaff Range. 10m N. of Sunshine Rd.	Gate	A-30A	027 758	Across trail leading to Garnsey Range 50m E. of A-30 Roadblock	Gate
A-6	939 763	Off Sunshine Rd 100m W. of Oswichee Creek. Permanently closed.	Cable/ Berm	A-31	020 745	Across fire break leading to Brann	Cable
A-8	968 740	Across unnamed trail 30m N. of Sunshine Rd and 800m N.W. of entrance to Griswold Range.	Gate	A-32	989 724	Across entrance road to Kunzig Range.	Gate
A-10	018 730	Across entrance road to Flint Range. 50m N. of Sunshine Rd.	Gate	A-33	974 734	Across entrance to Griswold Range.	Gate
A-11	019 731	Across Lumpkin Trail 30m N. of its intersection with Sunshine Rd.	Gate	A-33A	979 739	150 meters west of Target Systems bldg on trail leading to move to contact site	Gate
A-11A	032 729	Rd guard pos # 2 for Garnsey Rng Obj 'E' (intersection Jamestown/Sunshine Rd's	Rd Grd # 2	A-33B	982 739	20m N of Target Sys bldg on trail running on west side of bldg.	Install Gate
A-12	033 742	Across Garnsey Rd 50m W. of its intersection with Jamestown Rd.	Gate	A-34	947 760	Across entrance to Minter Hill 700m E. of Oswichee Creek.	Gate
A-12A	029 744	Across Garnsey Rd 400m W. of A-12 Roadblock.	Gate	A-38	952 816	Across fire break 300m down range of firing line on Red Cloud Range on L. side of range.	Cable
A-12B	028 741	Across trail 150m SW of A-12A Roadblock. 50m W. of Range Bldg.	Gate	A-39	956 822	Across unnamed trail 100m S. of bldgs on Buckner Range on L. side of range	Cable
A-12C	036 746	Road guard position # 3 for Garnsey Rng Objective 'E' (Jamestown at Lightning Rd)	Road Guard # 3	A-40	967 823	Across fire break 50m down range on the left side of Pierce Range.	Gate
A-13	936 762	Across Sunshine Rd 10m E. of the entrance to Grandstaff Range. (Road guard location)	Gate	A-41	972 820	Across fire break located on the right side of the firing line on Patton Range.	Cable
A-14	974 733	Across Sunshine Rd 10m W. of the entrance to Griswold Range. (Road guard location)	Gate	A-42	978 820	Across fire break located on the left side of the firing line on Patton Range.	Cable
A-15	021 799	Across entrance road to Buchanan Range.	Gate	A-43	983 823	Across fire break located on the right side	Cable
A-15A	021 798	Gate Across Good Luck Rd	Gate	A-44	986 823	Across fire break 100m E. of the 25m flat	Gate
A-15B	022 796	Road guard position # 1 for Garnsey Rng Objective 'E' (Jamestown road SW corner of Engineer building)	Road Guard # 1	A-45	990 827	Across fire break located on the right side of the firing line on Duke Range.	Gate
A-18	993 828	Across Buckeye Rd 225m S. of its intersection with 1st Div Rd. and 50m E. of entrance to Duke Range	Gate	A-45A	991 829	Across Booker Breach site entrance road 200m past Duke Rng entrance gate	Gate
A-19	973 825	Across entrance road to Patton Range 400m S. of its intersection with 1st Div Rd.	Gate	A-46	984 832	Across unnamed trail 100m W. of the intersection of 1st Div Rd and Ivy Rd.	Gate
A-20	974 827	Across entrance road to Dianda Range. 300m S. its intersection with 1st Div Rd.	Gate	A-47	990 833	Across unnamed trail 500m W. of the intersection with 1st Div & Buckeye Rd's	Gate
A-22	015 817	Across unnamed trail 50m N. of Brinson Range and 10m off Jamestown Rd.	Gate	A-48	995 827	Across fire break located on the right side of the firing line on Porter Range.	Cable
A23	983 756	Across Lumpkin Trail 200m E. of Griswold Range	Gate	A-49	998 827	Across fire break located on the left side of the firing line on Porter Range.	Cable
A-23A	005 748	On Lumpkin trail 50m NW of Objective 'E' on Garnsey Range.	Gate	A-50	000 830	Across unnamed trail 200m W. of entrance to Maertens Range.	Gate
A-23B	005 747	Adjacent to A-23A gate on trail near intersection of Lumpkin trail	Install Gate	A-51	031 791	Barrier on Furman Rd	Barrier 1
A-24	015 811	10m inside entrance gate of Brinson Rng south of entrance road.	Gate	A-52	034 776	Barrier on Yankee Rd	Barrier 2
A-25	016 789	Across fire break 10m W. of its intersection with Good Luck Rd.	Gate	A-53	035 776	Gate to Cole Range	Barrier 3
A-26	013 798	On L/S of Buchanan Range 50 meters W. of chow area across entrance to fire break.	Cable	A-54	046 749	Barrier off Lightning Rd on unnamed trail	Barrier 5
A-27	018 805	Across unnamed trl 175m N of intersection of Hourglass and Jamestown roads	Gate	A-55	057 759	Barrier off Lightning Rd on unnamed trail	Barrier 4

**Lanes 1-5 and 16-20 will not used for this event.**

1000 YRD FL

900 YRD FL





**DEPARTMENT OF THE ARMY**  
UNITED STATES ARMY EVALUATION CENTER  
2202 ABERDEEN BOULEVARD – SECOND FLOOR  
ABERDEEN PROVING GROUND, MD 21005-5001

TEAE-SS

5 November 2014

MEMORANDUM FOR U.S. Army Maneuver Center of Excellence (MCoE) (ATZK-TDT/Michael R. Wood), 1 Karker Drive, Fort Benning, GA 31905

SUBJECT: Safety Release for Robotic Human-Type Target (RHTT) Provided for Technology Assessment and Training

1. References:

- a. MIL-STD-882E, Department of Defense (DOD), Standard Practice, System Safety, 11 May 2012.
- b. DA PAM 385-30, (Safety Mishap Risk Management), 1 February 2010.
- c. DA PAM 385-63, (Range Safety), 30 January 2012.
- d. Technical Bulletin (TB) 43-0134, Battery Disposition and Disposal, Headquarters, Department of the Army, 19 May 2008.
- e. Report, Nonionizing Radiation Protection Study No. 25-MC-0BWC-09, Laser Radiation Hazard Evaluation of the SICK, Inc. Model LMS 111 LIDAR, U.S. Army Public Health Command (PHC), 1 July 2009.
- f. Report, United States Marine Corps (USMC) Four Wheeled Robotic Moving Target System (FW-RMTS) Foreign Comparative Test Part 2 (FCT2) Safety Assessment Report (SAR), Marathon Targets, 5 September 2013.
- g. Test Site Visit, U.S. Army Evaluation Center (AEC) (TEAE-SS-D), Mr. Robert Gauss, 23-25 April 2013, subject: RHTT Demonstration, Fort A. P. Hill, VA.

**FOR OFFICIAL USE ONLY**

This document contains information EXEMPT FROM MANDATORY DISCLOSURE under the Freedom of Information Act. Exemption 5 (pre-decisional materials) applies. Other exemptions may also apply.

**Distribution Statement B:** Distribution authorized to U.S. Government Agencies only  
(Test and Evaluation), November 2014.

Other requests for this document shall be referred to MCoE

TEAE-SS

SUBJECT: Safety Release for Robotic Human-Type Target (RHTT) Provided for Technology Assessment and Training

h. Email, PHC, MCHB-IP-ONR, Ms. Penelope Galoff, 21 May 2013, subject: SICK LMS.

i. Phone Conference between Mr. Gauss, AEC, and Mr. Craven, Redstone Test Center, 29 May 2013, subject: Hazards of Electromagnetic Radiation Guidance for Commercial-off-the-shelf Wi-Fi.

j. Manual, Mobile Target Training System: System Overview, Marathon Targets, undated.

k. Manual, Mobile Target Training System: Maintenance, Marathon Targets, undated.

l. Manual, Mobile Target Training System: System Startup/Shutdown, Marathon Targets, undated.

m. Manual, Mobile Target Training System: TargetControl Software Version 12.11, Marathon Targets, undated.

n. Manual, Mobile Target Training System: TargetMap and Target Paint Software Version 12.11, Marathon Targets, undated.

o. Manual, Mobile Target Training System: TargetPlan Software Version 12.11, Marathon Targets, undated.

p. Email, MCoE, ATZK-TDT, Mr. Michael Wood, 15 October 2014, subject: One Year Safety Release for Robotic Human-Type Target (RHTT).

2. Purpose. This Safety Release of RHTT is provided for Technology Assessment and training. The Technology Assessment and training will be conducted by MCoE from 10 November 2014 through 30 November 2015, at Fort Benning, GA. Soldiers from the 198th/199th Infantry Brigades, 316th Cavalry Brigade, Army Marksmanship Unit, U.S. Army Sniper School, and the Noncommissioned Officers Academy will participate in the training. This Safety Release will expire on 15 December 2015. AEC conducted a safety review of the references and determined that adherence to the warnings, cautions, procedures, and mitigations identified in this Safety Release and references 1j through 1o minimizes all risks to a level commensurate with the risks of normal operations.

TEAE-SS

SUBJECT: Safety Release for Robotic Human-Type Target (RHTT) Provided for Technology Assessment and Training

### 3. System Description.

a. The RHTT is a system of automated humanoid robotic targets for live fire weapons training. Targets move in a designated area that is both mapped and defined by the operator using the RHTT software. The RHTT system is comprised of: robotic targets, a charger for each robotic target, portable computer rack control station, 802.11n Wi-Fi, and a ruggedized operator laptop for running RHTT software and controlling the movement of the RHTT.

b. The four-wheeled, RHTT T40 model (Figure 1) manufactured by Marathon Targets will be used as robotic targets. Movement of the RHTT T40 is remotely controlled via Wi-Fi by an operator via a laptop. Movements are either along programmed or random paths within an operator-defined area. The RHTT T40 is used to program the operator-defined area in addition to functioning as targets. Each RHTT T40 has a switch on its base for changing from charge mode to operational mode, plus an emergency-stop lanyard.



Figure 1. The RHTT T40.

c. The RHTT control station (Figure 2) is a portable computer rack that controls the RHTT Wi-Fi infrastructure and coordinates the operation of the RHTT T40s.

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SUBJECT: Safety Release for Robotic Human-Type Target (RHTT) Provided for Technology Assessment and Training

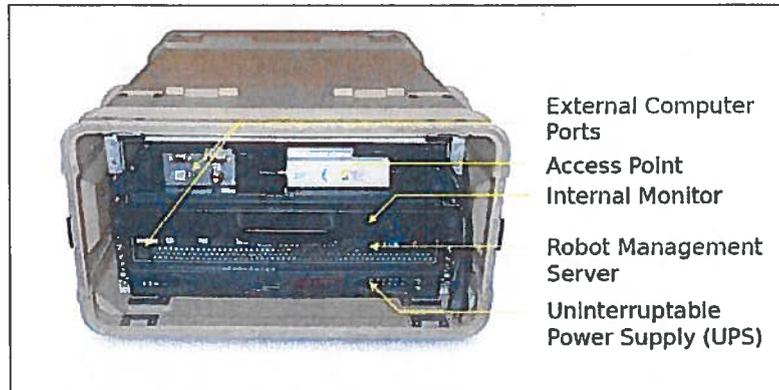


Figure 2. RHTT Control Station.

d. All RHTT components are connected by either Wi-Fi or hardwire to the networking hardware (Figure 3).

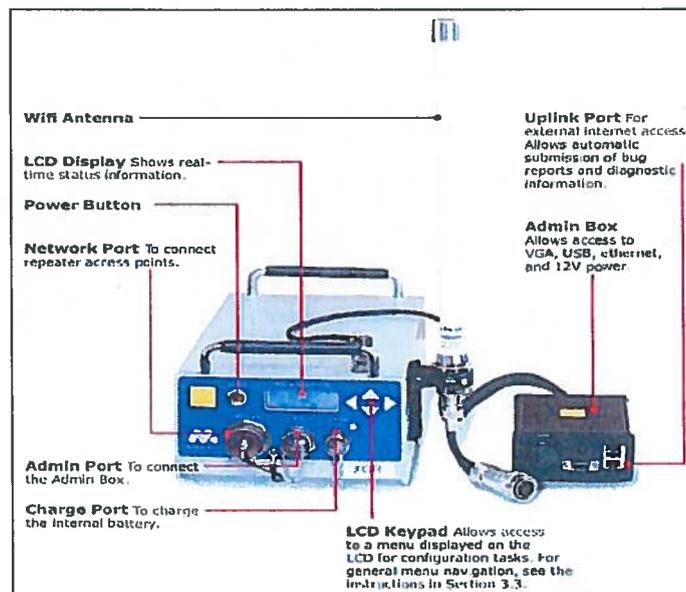


Figure 3. RHTT Networking Hardware.

e. The charger (Figure 4) is a docking station to recharge an RHTT. There is one charger per RHTT.

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SUBJECT: Safety Release for Robotic Human-Type Target (RHTT) Provided for Technology Assessment and Training

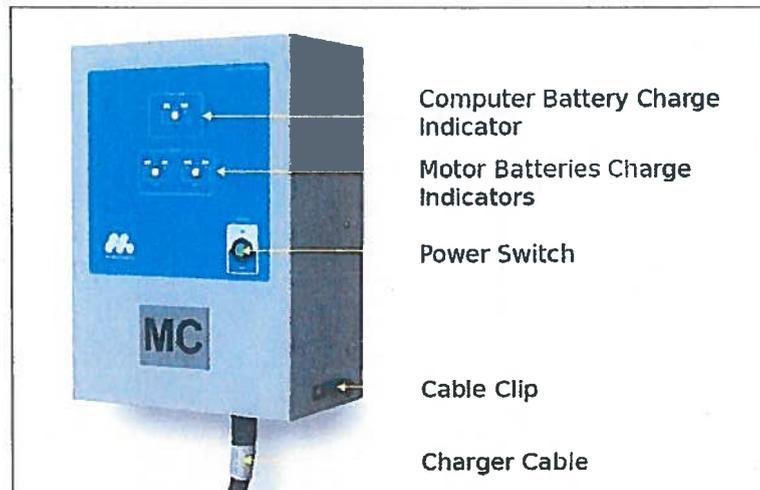


Figure 4. RHTT Charger.

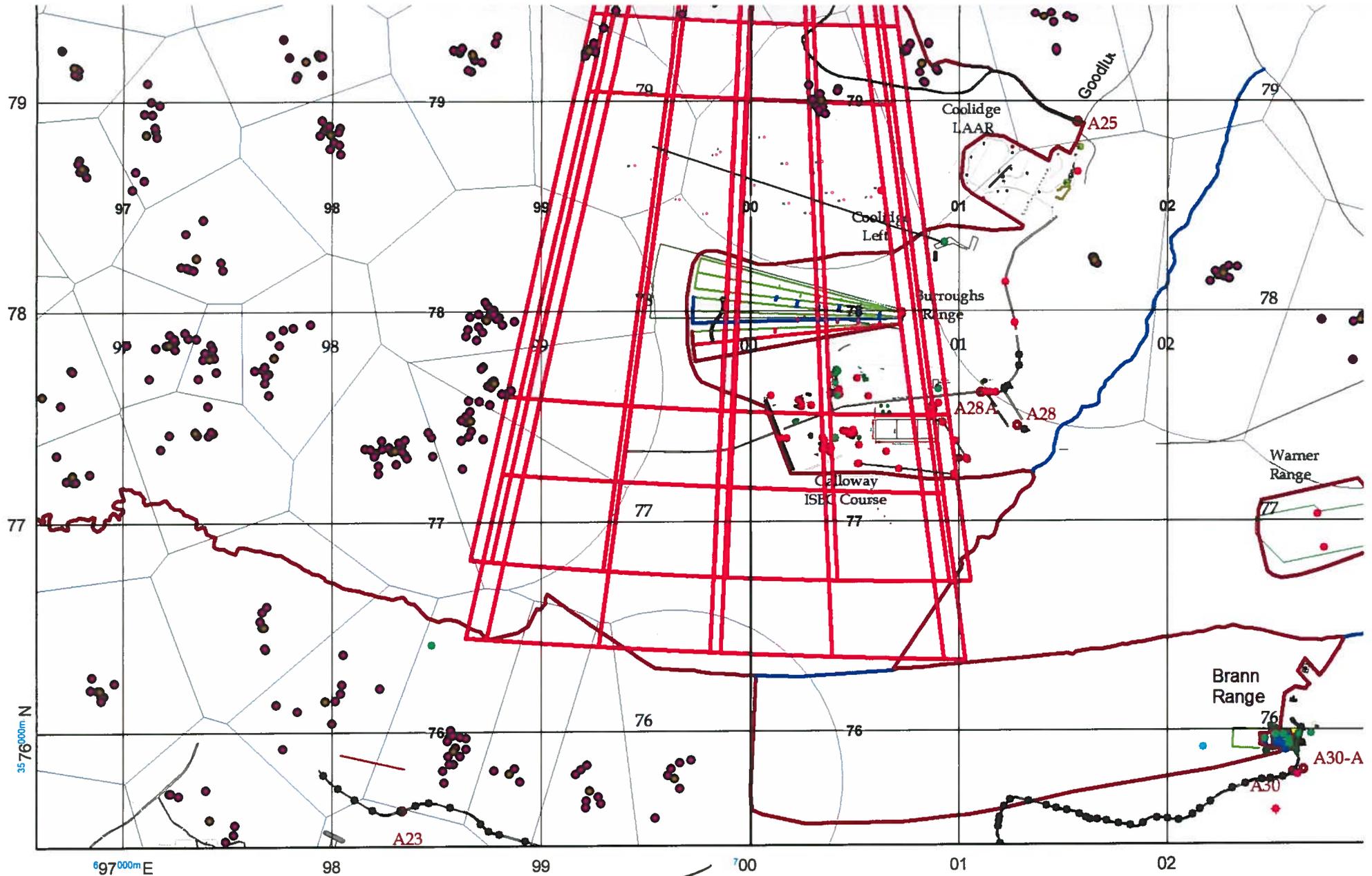
f. The operator laptop (Figure 5) is a ruggedized portable personal computer (PC) that allows programming and operation of the RHTT.



Figure 5. RHTT Operator Laptop.

#### 4. Discussion.

a. Information for this Safety Release is derived through Test Manager review of the listed references. Safety Release Information was evaluated in accordance with (IAW) MIL-STD-882E (reference 1a).



Range Manager Signature Authority:	Date: 29 May 15	<i>Brent S. Turk</i>	
Approving Authority:	Date:		
SDZ Created By:	Date: 04/20/2015	Unit: 1-29th Sniper School	Phone: 706-544-6505
			LOG # 4-11-15
SDZ Name: Maertens Sniper_Composite	FP: 16SGA0010582812		
Installation: None	TP: 16SGA0010981911		
Range Name: Maertens	TP: 16SGA0006381915		
Range Officer:			
Direct Fire			

TEAE-SS

SUBJECT: Safety Release for Robotic Human-Type Target (RHTT) Provided for Technology Assessment and Training

b. The laser in the base of the RHTT T40 is a Class 1 laser. Class 1 lasers are considered eye and skin safe and are not hazardous under any viewing or maintenance conditions.

c. The RHTT T40 has a steel base that could be hit by rounds (ordnance) during training exercises; therefore, the training exercises must occur on a range qualified for the weapon and ammunition used in training with steel/concrete impact media.

d. Radio Frequency (RF) transmitters can produce Hazards of Electromagnetic Radiation to Ordnance (HERO), Personnel (HERP), and Fuel (HERF). The 802.11n Wi-Fi transmitters have not been analyzed to determine Safe Separation Distances (SSD) from ammunition or ordnance with Electro-Explosive Devices (EEDs), personnel, and fuel. All RHTT RF transmitters must be turned off during transit to and from the training range. The training range must be free of ordnance containing EEDs.

e. Personnel must turn off all RHTT RF transmitters before performing any maintenance or handling.

f. While the RHTT T40 is being used for training, there will be no fueling operations at the training range.

g. Only Subject Matter Expert (SME) Soldiers and SME Civilians will operate the RHTT and perform any maintenance on the RHTT. However, Soldiers shooting at the RHTT T40 in training exercises will not perform maintenance on the RHTT T40.

h. The minimum allowable engagement distance from Soldiers to the RHTT T40 must be established by local range Safety Officer.

i. The RHTT T40 is powered by a rechargeable Lithium-Ion (Li-ion) battery. Li-ion batteries are safe under normal conditions, but may become extremely hot and emit smoke/flame when punctured, damaged, or misused. Soldiers should be instructed not to recharge, mishandle, mutilate, or short circuit the batteries and to follow handling and disposal procedures outlined in Technical Bulletin 43-0134 (reference 1d).

5. Conclusions. This Safety Release of RHTT is provided for Technology Assessment and training. AEC conducted a safety review of the references and determined that adherence to the warnings, cautions, procedures, and mitigations identified in this

TEAE-SS

SUBJECT: Safety Release for Robotic Human-Type Target (RHTT) Provided for Technology Assessment and Training

Safety Release and references 1j through 1o minimizes all risks to a level commensurate with the risks of normal operations.

a. The MCoE must provide the 198th/199th Infantry Brigades, 316th Cavalry Brigade, Army Marksmanship Unit, U.S. Army Sniper School, and the Noncommissioned Officers Academy Unit Commanders a copy of this memorandum for inclusion in the Unit risk management process and ensure the Soldiers are properly trained on the RHTT and aware of the guidance contained in this Safety Release.

b. The 198th/199th Infantry Brigades, 316th Cavalry Brigade, Army Marksmanship Unit, U.S. Army Sniper School, and the Noncommissioned Officers Academy Unit Commanders are responsible for providing risk acceptance documentation IAW DA-PAM 385-30 (reference 1b) and ensuring that the Soldiers are qualified to support the Technology Assessment and training

c. The MCoE hosting the Technology Assessment and training must put into practice a risk mitigation management process IAW DA-PAM 385-30 to implement the warnings, cautions, procedures, and mitigations addressed in this Safety Release and identified references. The MCoE hosting the Technology Assessment and training is also responsible for obtaining risk acceptance documentation from the Soldier chain of command.

d. This Headquarters must be notified immediately of any safety anomalies regarding Soldier use of RHTT.

e. This document does not satisfy a fielding requirement. Fielding requires a Safety Confirmation. This Safety Release does not authorize the use of RHTT outside the Continental U.S. (OCONUS) where hostilities are present.

TEAE-SS

SUBJECT: Safety Release for Robotic Human-Type Target (RHTT) Provided for  
Technology Assessment and Training

6. The point of contact is Robert Gauss, TEAE-SS-D, 410-278-1289, DSN 298-1289, or  
robert.w.gauss4.civ@mail.mil.

TRUTH IN TESTING!

FOR THE DIRECTOR:

BALL.MARC.E.1255225983

Digitally signed by BALL.MARC.E.1255225983  
DN: cn=U.S. Government, ou=DOD, ou=PEL, ou=USA, cn=BALL.MARC.E.1255225983  
Date: 2014.11.08 11:26:11 -0500

MARC E. BALL

Lead Engineer, Test and Safety

Soldier and Support Systems Evaluation

Directorate



# RECORD OF ENVIRONMENTAL CONSIDERATION REC



**EMD Number:** 1510705

**Project#:** N/A

**Project Title:** RHTT moving targets

**Description of Proposed Action:**

Range mapping of RHTT Targets will be conducted prior to execution. While using the targets on Maertens personnel will also understand that they will only engage RHTTs and static targets that are inside their firing lane. Standard static and moving targets will be engaged in accordance with current Maertens range packet. The purpose of this demonstration is to show the RHTT capabilities by replicating the unpredictable enemy threat on the battlefield. The firers will conduct individual live fire tasks to demonstrate the capability of the RHTT. This demonstration will be conducted during normal POI training and demonstrations to various VIPs.

**Project Location:**

Maertens, Burroughs

**Amount, Description, Location of Disturbance/Digging:**

None

**Number/Types of Vehicles:**

3 LMTV, 2 TMP

**Number of Personnel:**

100

**Type of Ammunition:**

5.56, 7.62, 300 WIN MAG Live

**Number/Types of Trees:**

None

Will not be taken off road.

**Types of Aviation:**

None

**Other Concerns:**

None

**Size of Project Area:** Acres

**Duration of Action:** Start:4/20/2015 Stop:9/30/2015

**Proponent:** Anthony Kizziah 706-544-6505

**Unit, Section or Dept:** Bco 1/29 IN Sniper Course

**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."

**Natural Resources - RCW**

**Conditions:**

Jonathan Neufeldt (706-544-7705), 5/21/2015

I sent a letter (administrative record) to the USFWS regarding using the RHTT at Maertens Range. The administrative record letter, the site visit to the range with USFWS and Range Division, and the SDZ/LOS analysis package from Range Division provided enough information for the USFWS to concur that the use of RHTT for sniper training will not result in a Take of RCW cluster A09-C. Burroughs Range doesn't have RCW issues so RHTT use at that range is ok. If RHTTs are used on other ranges where RCWs are located nearby or down range, a similar analysis may be required. If you have questions, contact Jonathan Neufeldt at 706-544-7705 or e-mail at: jonathan.h.neufeldt.civ@mail.mil.

**Noise**

**Conditions:**

Ellis Leeder (706-545-2400), 4/22/2015

Training has been analyzed as part of the Installation Operational Noise Management Program (IONMP) study. Approved for use according to approved range packet from Range Operations. Any noise complaints will be investigated and recommend mitigation actions to the appropriate personnel for the training actions. This 144r must be present at the training site when occupying compartments or any firing ranges.

EMD Number: 1510705 Project# N/A

Project Title: RHTT moving targets

CWA - Training

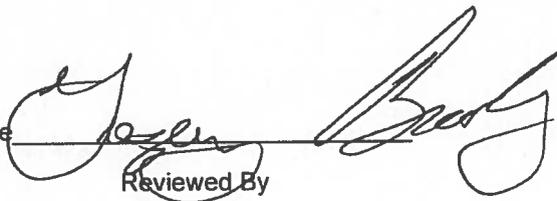
Conditions:

Jessica Loughman (706-604-4572), 4/17/2015

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). Failure to follow these guidance could cause the site to be close for future use. Recommend use and implementation of FM 4-25.12 (FM 21-10-1) Unit Field Sanitation Team preventive medicine measures when establishing field food service facilities and other waste facilities. To include but not limited to Chapter 2, Section IV: Waste Disposal; Appendix A Lesson 6: Waste Disposal in the Field; Appendix B - Figures B-25, B-26, B-27, B-28. Unit to submit POC in charge of monitoring these activities. For additional specific guidance on field sanitation requirements - contact Fort Benning Preventive Medicine.

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.

Signature   
Reviewed By

John E Brown  
NEPA Program Manager

Date 27 May 2015

Signature   
Approved By

Patrick R. Chauvey  
EPMB Chief

Date 27 MAY 2015

## FORT BENNING ENVIRONMENTAL REGULATIONS SUMMARY

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

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

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

Be prepared to report:

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

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

### ENVIRONMENTAL INCIDENT REPORT FORM

Unit: \_\_\_\_\_

OIC/NCOIC: \_\_\_\_\_

Training Area: \_\_\_\_\_

Grid Coordinates: \_\_\_\_\_

Date and Name: \_\_\_\_\_

Signature: \_\_\_\_\_

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

## FORT BENNING ENVIRONMENTAL REGULATIONS SUMMARY

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

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

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

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

### ENVIRONMENTAL INCIDENT REPORT FORM

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

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

## Example Unit/Activity SOP for Training and Deployment

### Introduction

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

### What Are Hazardous Materials and Hazardous Wastes

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

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

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

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

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

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

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

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

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

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

## Planning

### MINOR SPILLS

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

### INTERMEDIATE & MAJOR SPILLS

In addition to the procedures above:

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

## Prevention

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

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

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

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

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

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

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

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

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

to remember your **CHECK** list:

**Containment:**

\_\_\_ Ensure that secondary containment is used and in good condition.

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

**Hazardous Material/Hazardous Waste locations:**

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

\_\_\_ Put up warning signs and keep them clean and orderly.

**Environmental Documentation:**

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

**Containers:**

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

**Kits:**

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

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

**Response**

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

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

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

In any spill situation:

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

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

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

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

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

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

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

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

In addition:

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

**Acronyms are defined in the ASP Table of Content**

**APPENDIX H**

# **Spill Kits and Response Material Checklists**

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**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**

<b>Summary Spill Kit and Response Material Checklist</b>	
<b>Spill Kits and Response Material</b>	<b>Primary Contents</b>
<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><b>Spill kits</b> should include as a minimum:</p> <ul style="list-style-type: none"> <li>✓ Rubber gloves,</li> <li>✓ Safety goggles,</li> <li>✓ Putty, rubber mallet,</li> <li>✓ Wooden plugs,</li> <li>✓ Absorbent booms,</li> <li>✓ Absorbent pads,</li> <li>✓ Plastic bags, and</li> <li>✓ In some cases, a disposal barrel.</li> </ul>
<p>The Unit/Activity must check the material's MSDS for specific information on PPE and spill supplies.</p>	<p>Units/activities <b>transporting hazardous materials</b> should also plan for having a minimum amount of response materials on hand.</p> <ul style="list-style-type: none"> <li>✓ Various types of kits can be ordered through the U.S Army Supply System (through the Units supply or S-4 shop);</li> <li>✓ 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</li> <li>✓ 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.</li> </ul>

Acronyms are defined in the ASP Table of Contents

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

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

### **Recommended Spill Kits for Fuel Carrying Vehicles**

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

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

#### Drip Pan

30-Gallon POL Kit: Absorbs Approx. 20 Gallons

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

### **Recommended Spill Kits for Other Military Vehicles**

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

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

#### **Additional Materials or Equipment**

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

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

### **Vehicles Transporting Hazardous Materials other than POL**

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

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

## Spill Response Record

### PHASE I-IMMEDIATE ACTIONS FOR EVALUATING AND REPORTING SPILLS:

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

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

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

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

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

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

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

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