

RANGE AND TRAINING REGULATIONS

Range/Facility: TS-IED	Lateral Limits: As Briefed Below	Range Facilities: (2) 3 Km Mounted Loops; (2) Walking Awareness Trails; (2) 1km Dismounted Loops; (2) Storage Containers; Port-A-Johns
Boundaries: As Briefed Below		
Location: 507 997	Type: IED Defeat Training	Assigned to: CO, MCB Date Revised: 03 June 2009
Allowable Devices/Munitions: TIED II; IMESS by Mil-Sim-FX; Blanks; Pyro; X-02		

SESAMS is not Authorized

Scheduling
<ol style="list-style-type: none"> 1. Units Must Submit Requests through ECOE, Mobile Training Team - West <ol style="list-style-type: none"> a. Site Lead - Leo Rivera b. (DSN) 363-3634 c. (BB) (760) 859-6888 d. (Comm) (760) 763-3634 e. leo_rivera@emaic.com 2. Final approval & scheduling of this range must be submitted to Range Scheduling. 3. ECOE will utilize RFMSS to schedule range.

General Instructions
<ol style="list-style-type: none"> 1. A safety Brief will be conducted by the RSO prior to each event to all participants. 2. All personnel shall wear required PPE during all training events. 3. OIC & RSO Requirements - <ol style="list-style-type: none"> a. BFX <ol style="list-style-type: none"> i. OIC Requirement – GySgt or Above ii. RSO Requirement - SSgt or Above b. Blanks/Simulators <ol style="list-style-type: none"> i. OIC Requirement – SSgt or Above ii. RSO Requirement - Sgt or Above c. Non-Munitions Simulators <ol style="list-style-type: none"> i. OIC Requirement – None ii. RSO Requirement - Sgt or Above 4. IOT occupy this range unit must have the following personnel/equipment: <ol style="list-style-type: none"> a. RSO b. Corpsman & Safety Vehicle c. Positive Communication with LONGRIFLE d. An ORM reviewed and signed by the Command, RSO and (OIC - If using munitions). 5. IOT go into a hot status on range unit must have the following personnel/equipment: <ol style="list-style-type: none"> a. OIC b. RSO c. LSSO – If using Laser d. Corpsman & Safety Vehicle e. Positive Communication with LONGRIFLE 6. POVs are authorized to park in parking lot area without a POV pass. 7. The RSO & OIC will personally observe each event. 8. A non-participating Corpsman will be stationed with safety vehicle. 9. At no time will any unit go from live fire to blank or SESAMS force-on-force within a 24 hour period 10. When Range guards are not in sight of the RSO they are required to be posted in pairs with positive communication with the RSO. 11. Ammunition will only be issued per event and accounted for on NAVMC 11381. 12. After each event, unit leaders will conduct a line out. 13. Each RSO/PSO will certify to the OIC that all weapons are in Condition 4 prior to exiting the range/facility and all ammunition is accounted for. 14. All instruction found in the Mil Sim FX, TIED 2 & X-02 manuals shall be adhered to.

Special Instructions Continued on Next page

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Training Unit Responsibilities

1. The following safety requirements shall be met by the training unit:
 - a. Provide Corpsman and Safety Vehicle.
 - b. **When required, provide Range Guards.**
 - a. Gate/Rg #1 – 50654 99850
 - b. Gate/Rg #2 – 50697 98838
 - c. Gate/Rg #3 – 50113 01615
 - d. Gate/Rg #4 – 50816 01865

Blank Ammunition

2. The following precautions will be observed during the use of blank ammunition:
 - c. Blank Firing Attachment (BFA) shall be used on all weapons.
 - d. **5 meter safe separation distance** (SSD) will not be reduced.
 - e. This distance includes a dispersion angle of 10 degrees left and right of the GTL.
 - f. Hearing protection (ear plugs) should be worn while firing blank ammunition.
 - g. **Encapsulating Eye Protection shall** be worn by all personnel.
 - h. A violation of the SSD could result in serious injury. If the SSD is decreased to within .9m, fatal injuries may occur.

IMESS by Mil-Sim-FX

(Improved Munitions Explosive Effects Simulator System)

1. **Safety Precautions –**
 - a. **No device shall Not Be stored/transported “Live”**
 - i. Device shall be assembled on site
 - b. **Shall not be used in enclosed spaces.**
 - c. **Encapsulating Eye Protection shall** be worn by all personnel
 - d. **Recommend PPE –**
 - i. Gloves
 - ii. NIOSH approved dust respirator – **Bone Black #6 Powder**
 - e. Unit shall be secure to ground with ground stakes and sandbags – **Device can be buried as long as the head assembly is above ground and not obstructed by foreign debris.**
 - f. Discharge head shall be pointed away from personnel
 - i. Burst Disk -
 - Temperature is below 50° - use one LP burst Disk
 - Temperature is above 50° - use two LP burst Disk
 - g. A.R.C. Head with Mounting Eyelets
 - i. 60° fan pattern
 - ii. **When A.R.C. is loaded Paintballs – Face & Throat Protectors are required**
 - h. Directional Head with Ground Stakes
 - i. 60° fan pattern
 - ii. **When Directional Head is loaded Paintballs – Face & Throat Protectors are required**
 - i. Ordinance Head – Non Ground Marking Effect
 - i. 110° fan pattern
 - j. Mortar Fin Head – Ground Marking Effect
 - i. 110° fan pattern
 - k. Ordinance Head & Mortar Fin Head
 - i. Place a block of wood under the support feet to prevent “rolling”
 - l. Concussion F/X PET Bottle (**Only to be used with MIL-20-ST 20 Inch Tube**)
 - i. **Shall not be used in enclosed spaces or against dismount troops – Mounted Convoy Ops Only**
 - ii. 360° fan pattern
 - iii. Safety stand off of 25 feet shall be established & maintained
 - iv. Do not detonate over gravel or loose debris
 - v. **Hearing protection is required**

Special Instructions Continued on Next page

RANGE AND TRAINING REGULATIONS

- vi. "Cool Smoke" or Talc/Baby Powder – **Maximum 7 oz**
- m. Components –
 - i. MIL-20-ST (20 Inch Tube – **Maximum of 1/3 of a 22 oz bottle of "Cool Smoke or Talc/baby Powder"**)
 - ii. MIL-120ST (120mm SIM Tube - **Maximum of 66 oz of "Cool Smoke or Talc/baby Powder"**)
 - iii. MIL-9R-HFV (9oz High Flow Valve CO² Tank)
 - iv. MIL-9R-FBA (9oz Tank Base/Firing Actuator Assembly)
 - v. Airline & Airline Connector/Airline "T" Connector
 - vi. MIL-RX-75S (75mm RX/Dual Solenoid Air Trigger Set w/ Caddy)
 - vii. MIL-12G-TCD (Trigger Command Detonator)
- n. Authorized Powders –
 - i. F/X "Cool Smoke"
 - ii. Talc/Baby Powder
- o. **Failed Detonation – Recovery Procedures**
 - i. All personnel shall stay clear of unit for **3 minutes**
 - ii. Approach with caution from the side. Ensure that the discharge end is pointed down range. Remove airline, firing actuator and then remove the unit's base and CO² tank assembly.
- p. Eye Wash Stations is recommended to be on site.
- q. **(3) five gallon water Jugs shall be on site**
 - i. If direct exposure to eyes occurs, flush with water for 15 minutes and seek medical attention

TIED 2

(Training Improvised Device Second Addition)

- 1. **Safety Precautions –**
 - a. Misuse or careless use of the TIED 2 may result in injury! **Encapsulating Eye Protection and leather gloves** must be worn at all times during handling and setup by the user and anyone within 25 feet!
 - b. **The Large IED Simulator will not be detonated within 25 feet of any dismantled personnel.**
 - c. **Shall not be utilized on enclosed spaces.** Carbon Dioxide or CO₂ is a colorless and odorless faintly acidic tasting and non-flammable gas. Use in well ventilated areas.
 - d. **Hearing protection is required by all personnel** when detonating the TIED 2 devices.
 - e. Flour and starch based products are flammable. Do not use flour or starch based products in place of the recommended smoke simulation powder due to the possibility of creating a flammable atmosphere around a detonating LIS. The resulting plume of flour or a starched based product could ignite should an ignition source be present.
 - f. **TIED 2 devices shall not be stored/transported "Live". Device shall be assembled on site**
 - g. Never attempt to alter device or operate device with any altered, broken, or missing parts!
 - h. Recommend PPE –
 - i. NIOSH approved dust respirator
 - i. Authorized Powders –
 - i. Bone Black #6
 - ii. Talc/Baby Powder
 - r. Eye Wash Stations is recommended to be on site.
 - s. **(3) five gallon water Jugs shall be on site**
 - i. If direct exposure to eyes occurs, flush with water for 15 minutes and seek medical attention

X-02

- 1. **Safety Precautions –**
 - a. **No device shall Not Be stored/transported "Live" - Device shall be armed on site**
 - b. **Shall not be used in enclosed spaces.**
 - c. **Ear protection shall** be worn by all personnel
 - d. Discharge head (exhaust) shall be pointed directly up and be clear of any obstructions of material.
 - e. Device shall never be placed below the level of any participant.
 - f. Participants shall not be closer than 15 feet when operated.
 - g. Vegetation shall be cleared five (5) feet away from device.

RANGE AND TRAINING REGULATIONS

Counter Radio-Controlled Electronic Warfare (CREW) **(For Classroom Instructional Purposes Only)**

Duke. This vehicle-mounted counter-RCIED system.

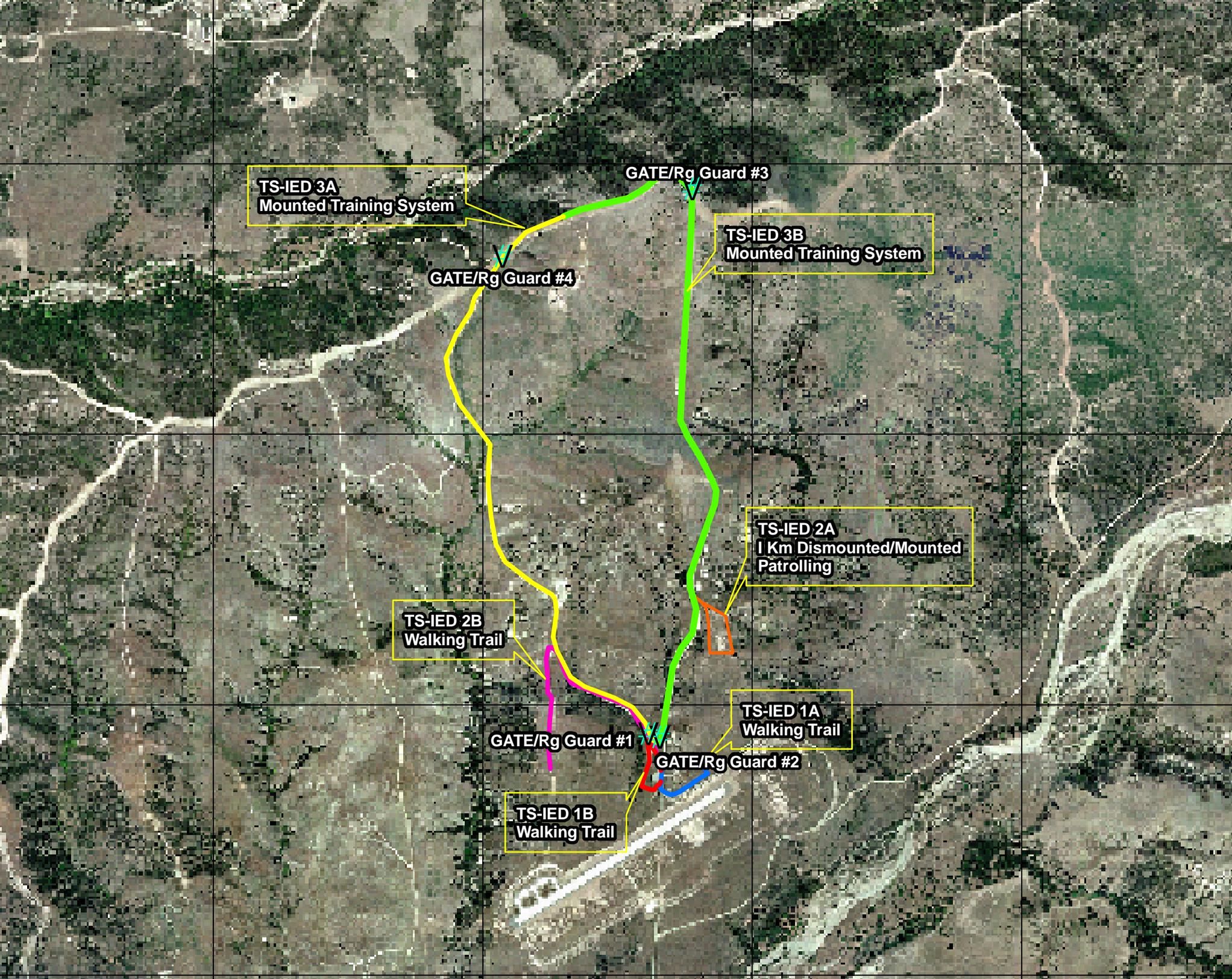
Chameleon. This vehicle-mounted counter-RCIED system.

Guardian. This man-portable active jamming system.

Authorized Training Frequencies for TIED 2

Both the Common Interface Device (CID) and Remote Trigger Unit (RTU) operate within the Department of Defense allotted radio frequency of 315 megahertz or MHz. Operating frequencies are:

- 315MHZ
- 315.125MHZ
- 315.250MHZ
- 315.375MHZ.



TS-IED 3A
Mounted Training System

GATE/Rg Guard #3

TS-IED 3B
Mounted Training System

GATE/Rg Guard #4

TS-IED 2A
1 Km Dismounted/Mounted
Patrolling

TS-IED 2B
Walking Trail

TS-IED 1A
Walking Trail

GATE/Rg Guard #1

GATE/Rg Guard #2

TS-IED 1B
Walking Trail

CONCUSSIVE F/X PET BOTTLE ADAPTER

**** WARNING ****

MAINTAIN A SAFE STAND OFF
DISTANCE OF 25 FEET

DO NOT DETONATE OVER
GRAVEL, LOOSE DEBRIS, ETC.

EYE BALLISTIC PROTECTION
REQUIRED

TO BE DEPLOYED AGAINST
MOUNTED CONVOY OPERATIONS
ONLY

HEARING PROTECTION
REQUIRED (APPROX. 110 DB
OUTPUT)

NOTE

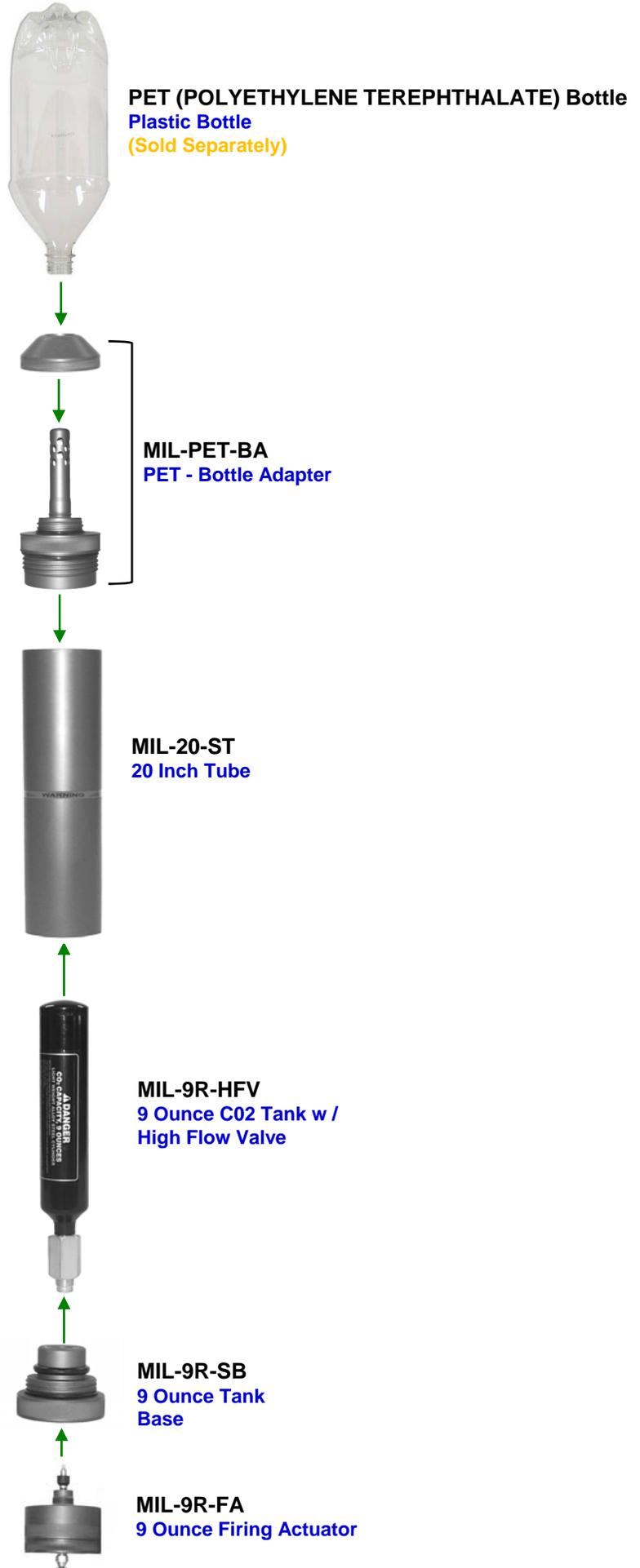
DO NOT OVER TIGHTEN PLASTIC
BOTTLE.

FOR MAXIMUM NOISE, DO NOT
USE ANY FX POWDER
(COOL SMOKE®)

IF FX POWDER (COOL SMOKE®) IS
USED, USE A MAXIMUM OF 1/3 OF
A 22 OZ. BOTTLE

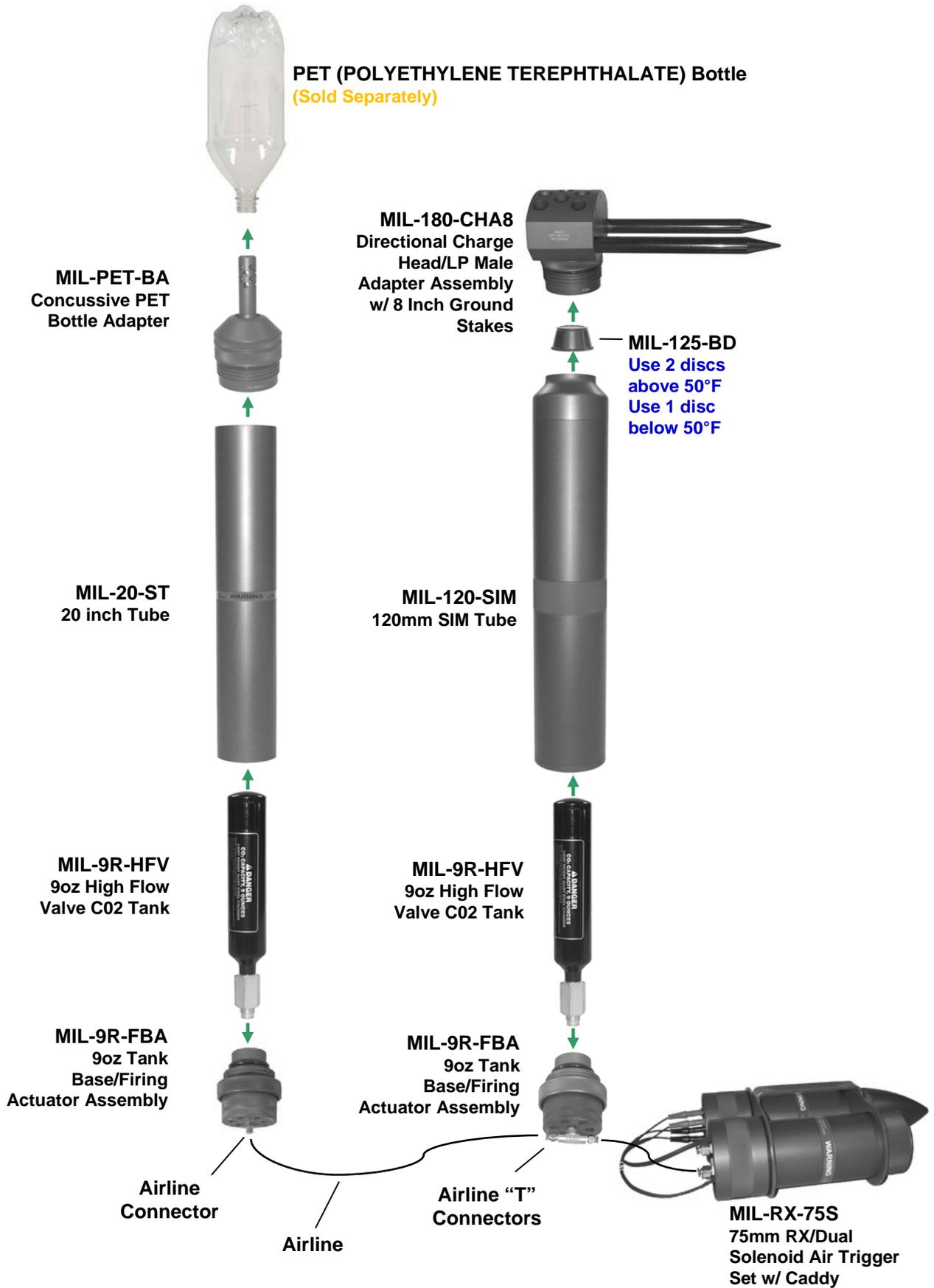
FOR THE ULTIMATE NOISE AND
POWDER EFFECT, DAISY CHAIN
THIS DEVICE (WITHOUT POWDER)
TO ANOTHER DEVICE (WITH
POWDER)

PET IS ONLY TO BE USED WITH THE
20 INCH TUBE

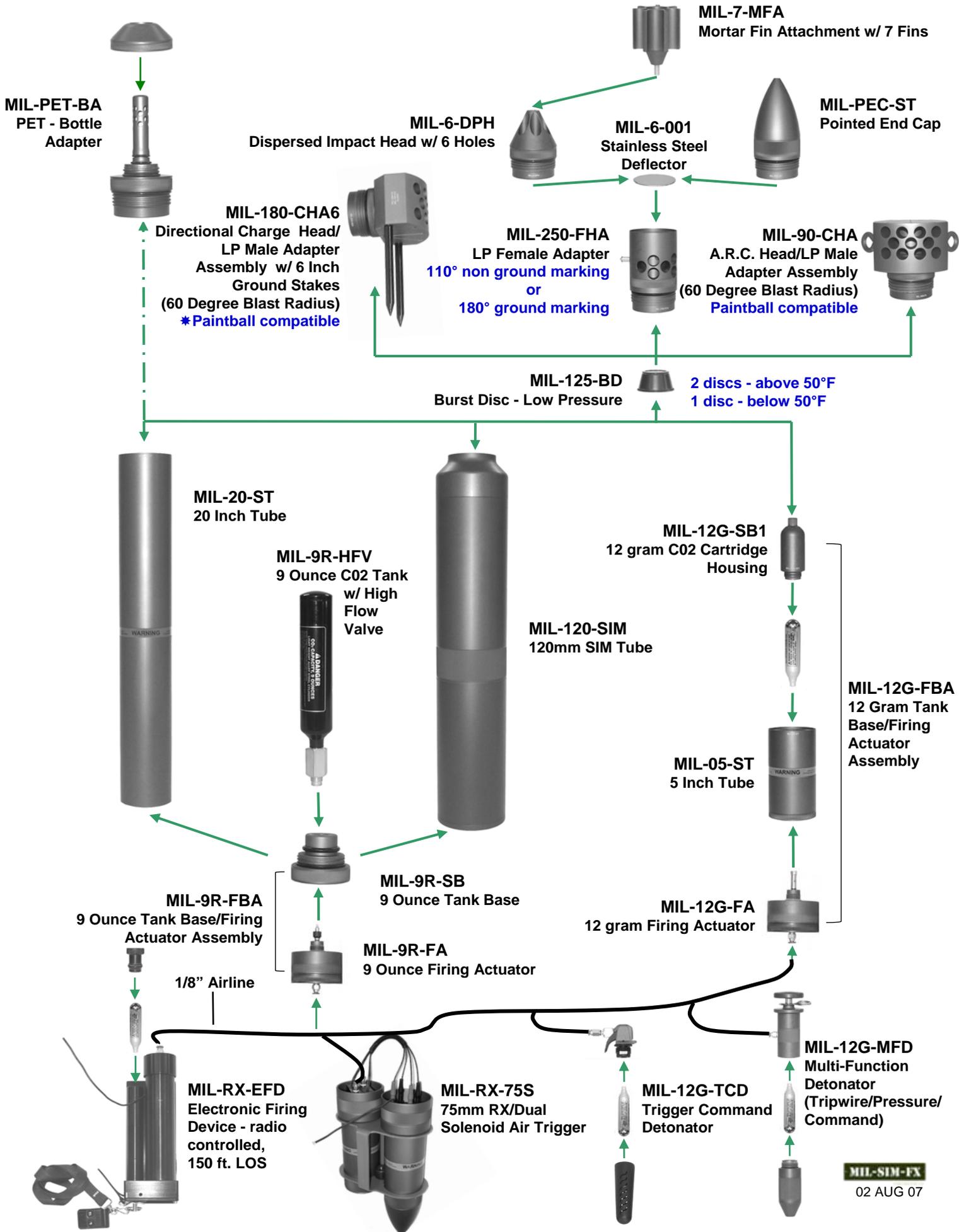


SAMPLE CONFIGURATION

SUGGESTED CONFIGURATION FOR NOISE/VISUAL EFFECT AND VEHICLE DAMAGE ASSESSMENT.



SCHEMATIC



MOUT IED ASSEMBLY INSTRUCTIONS



Directional Charge Head
with Ground Stakes



A.R.C. Head with
Mounting Eyelets



Ordnance Head



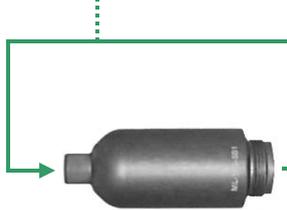
Mortar Fin Head



OPTIONAL STEP
* add 2 spoonfuls of
Cool Smoke™ powder *



Burst Disc



12 gram CO2
Cartridge Housing



Disposable 12 gram
CO2 Cartridge

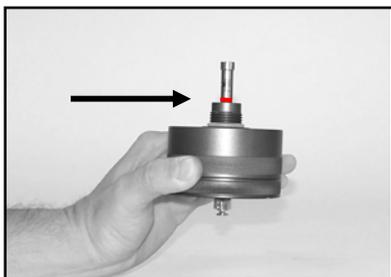


5 Inch Tube



12 gram
Firing Actuator

THE FOLLOWING ASSEMBLY INSTRUCTIONS BELOW APPLY TO THE 5 INCH TUBE ONLY, USING ANY HEAD SELECTION



1) ENSURE THE RED RING ON THE 12 GRAM FIRING ACTUATOR PIN IS NOT VISIBLE. IF THE RING IS VISIBLE (PICTURED LEFT) THE 12 GRAM FIRING ACTUATOR PIN IS IN THE ACTIVATED POSITION AND NEEDS TO BE PUSHED INTO THE SEATED POSITION. (SEE STEP 2)



2) TO SEAT THE 12 GRAM FIRING PIN - TURN THE 12 GRAM FIRING ACTUATOR UPSIDE DOWN AND APPLY FIRM, STEADY PRESSURE ON THE FIRING PIN UNTIL THE PIN SEATS. (MEANING THE RED LINE IS NO LONGER VISIBLE)

2. TIED 2 Kit Description

The TIED 2 Kit consists of a Common Interface Device (CID), Remote Trigger Unit (RTU), CO₂ Charging Tank and the following non-pyrotechnic explosion cuing devices: Large IED Simulator, Pressure Sensitive Landmine Trainer (PSLT), and a Tripwire Training Boobytrap (TTB). The non-pyrotechnic cuing devices use a discharge of CO₂ and Smoke Simulation Powder to create a pyrotechnic effect, but without a true explosion. The CID and RTU form the detonation system used to activate various 12 volt cuing devices. The PSLT and TTB do not interact with the CID and RTU and are activated by either a pressure switch or trip wire.



Figure 3: TIED 2 Kit Components