



## UNEXPLODED ORDINANCE (UXO) POLICY

### 1. PURPOSE

Okaloosa County has a significant military presence within it namely Eglin AFB and its Ranges, and Hurlburt Field. As such, there may be times County employees will be tasked to perform work in locations that may contain unexploded ordinance.

The purpose of this policy is to establish mandatory practices and procedures for County employees when during their work throughout the County, come upon unexploded ordinance or articles of suspicion that may contain explosives.

### 2. DEFINITIONS

The following words and terms shall have the following meaning, unless the context clearly indicates otherwise.

- 2.1. **Unexploded Ordinance (UXO)** means a device that has failed to detonate such as but not limited to, land mines, artillery shells, ammunition both large bore or small, missiles, rockets, mortar rounds, grenades and bombs. UXO's can also take the form of incendiary devices such as flares, fuzes, detonation caps & cords and ammunition primers.
- 2.2. **Abandoned Firearm** means any firearm (shotgun, rifle, handgun) found abandoned in County right-of-ways, on County property or wherever County employees conduct work.
- 2.3. **Article of Suspicion** will be a general term describing something out of place such as but not limited to, package in a hallway, customer service lobby, elevator, in a right-of-way, that has been left unattended. This would include other suspicious items such as a pipe with caps on both ends with a fuse, a package with wires on the outside, firearms laying in the right of way, etc.

### 3. GENERAL INFORMATION

- 3.1. **Function of Explosives** – Explosives are designed to operate in many different ways but mainly by detonation and explosion whereby the main effect is the rapid expansion of gases with or without fragmentation of a casing. Explosives can also perform other functions such as propel projectiles (bullets, artillery rounds, mortar rounds), and even assist with the disbursement of hazardous chemicals designed to incapacitate or kill.

- 3.2. **Methods of Detonation** – Explosive munitions have numerous methods of detonation but the most important to remember when encountering a UXO or suspicious article are:
- 3.2.1. **Impact** – munition is designed to explode or function upon impact with a target when fired, dropped, etc.
  - 3.2.2. **Proximity** – munition is designed to function within a certain predetermined proximity (distance) of a target. Some explosives function when persons are detected approaching a surrounding proximity.
  - 3.2.3. **Time Delay** – munition is designed to remain armed but will function only at a predetermined time period; usually set during preparation.
  - 3.2.4. **EED** – (electro-explosive device) munition is designed to function when an electronic frequency is received by a component within the munition or that munition is extremely sensitive to electromagnetic frequencies.
  - 3.2.5. **Electrical** – munition is fired by use of electrical charge. This is normally found in small and large ammunition where primers are fired using an electrical current instead of percussion firing pin. Highly sensitive to static electricity.

3.3. **Types of Explosive Hazards**

- 3.3.1. **Detonation** – Extreme rapid expansion of gases designed to emit intense pressure/shock wave. (i.e., high explosive bombs, artillery)
- 3.3.2. **Incendiary** – Designed by chemical or physical processes to ignite and burn. (i.e., flares)
- 3.3.3. **Fragmentation** – Designed to explode and as such propel high velocity fragments outward. (i.e., land mines, pipe bombs, anti-personnel mines).
- 3.3.4. **Propulsion** – Explosive devices designed not to mass detonate but instead to propel a shell, projectile, missile, etc., to a target. However, given the right conditions (fire), if contained, device can detonate. (i.e., rocket/missile/mortar motors).
- 3.3.5. **Disbursement** – Designed to disperse a material (aerosol) over a target or upon a target. (i.e., nerve agent, anthrax, incapacitating agents, tear gas).

4. **GENERAL SAFETY RULES**

4.1. **UXO/Article of Suspicion**

- 4.1.1. Employees will not bring any UXO devices onto County property. This includes small arms ammunition, shell casings etc., (excluding anyone legally certified to carry a weapon in the line of duty or as otherwise authorized by law).

- 4.1.2. If a UXO is found out in the field while performing work, employees will strictly adhere to the procedures found in Section 5, *EVACUATION/SAFETY PROCEDURES*.
- 4.1.3. Employees will not disassemble, reassemble, or modify any explosive device. Instead leave where found and do not disturb.
- 4.1.4. UXO's/suspicious articles/munitions including ammunition will not be brought into any County facility (excluding anyone legally certified to carry a weapon in the line of duty or as otherwise authorized by law).

#### 4.2. **Abandoned Firearms/Ammunition**

- 4.2.1. County employees that find any abandoned firearm (shotgun, rifle, handgun) will immediately notify County 911, then notify their supervisor reporting what they have found.
- 4.2.2. In no way will County employees move, handle or attempt to clear the abandoned firearm.
- 4.2.3. Abandoned firearms/ammunition will not be carried in County vehicles or brought into County work areas or facilities.

### 5. **EVACUATION/SAFETY PROCEDURES**

#### **THE THREE "R"s: RECOGNIZE, RETREAT & REPORT!**

- 5.1. Upon coming in contact with a potential UXO or suspicious article, County employees will immediately stop all work including all running equipment.
- 5.2. Employees will not move, alter, handle, or remove any device!
- 5.3. Employees will calmly evacuate area to a safe distance (a minimum of 300 feet) and call 911.

#### **WARNING**

Do not attempt to operate cell phones, walkie-talkies or any other electronic device **within 300 feet** of the explosive device. Detonation may occur.

- 5.4. Employees in a calm and professional manner will assist the evacuation of any bystanders to a safe distance and await public safety personnel.
- 5.5. The employee that calls 911 should be prepared to provide:
  - 5.5.1. Type of device,
  - 5.5.2. Location of device, and,
  - 5.5.3. Any specific features of the device.\*

\*(to assist review the UXO Recognition Chart and Color Chart found at the end of this policy).

**6. DISCIPLINARY PROCEDURES**

6.2. Because of the dangerous nature of explosives, this policy must be adhered to fully. For this reason, the following acts will result in disciplinary action up to and including termination:

6.2.1. Failing to report the finding of a UXO, suspicious article or abandoned firearm.

6.2.2. Possessing a UXO while on county property, in a county vehicle, or while on county business without proper authorization from the department director (excluding anyone legally certified to carry a weapon in the line of duty or as otherwise authorized by law).

6.2.3. Attempting to modify, disassemble or assemble any UXO during County time while on County business.

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## UNEXPLODED ORDNANCE (UXO) RECOGNITION CHART

### PROJECTILES & MORTARS



Ammunition



Fuzes



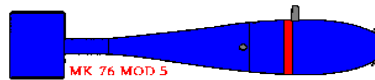
Artillery Warheads

Ammunition and artillery are usually designed to detonate on impact. However, simple shock can detonate round. **WARNING!** Some rounds (i.e., 20 mm) are electrically primed – static electricity can detonate primer! ***High explosion and fragmentation hazard!***

### PRACTICE BOMBS



M-105 Practice Bomb



BDU-33 Practice Bomb

Practice bombs have a smoke charge which detonates upon impact. Charge is like ***a large 8-gauge shotgun shell***. Packing material can act as projectile wadding. **Extremely dangerous!**

### HAND GRENADES



Hand grenades usually have a timed fuze installed when safety pin with ring is pulled out of handle. **THESE ARE NOT CIGARETTE LIGHTERS!**

**BOMBS AND DISPENSERS**

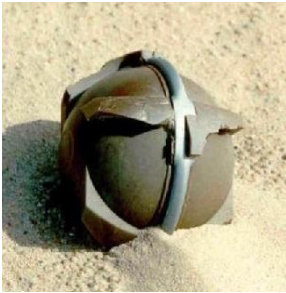


Depending on munition, high explosive bomb blast can reach 2000 feet.

**BOMBLETS**



Anti-personnel Bomblet



Anti-tank Bomblet

***Bomblets are extremely dangerous!*** Bomblets are usually armed by spinning during flight or through timer. Detonation is by impact. Some bomblets are anti personnel mines – they detonate upon contact or detection. Size varies between golf ball to soft ball size.

**ROCKET PROPELLED GRENADES (RPG)**



Main hazard with RPG's is ***high explosion with fragmentation***. Also, remember rocket motor in back can explode under certain circumstances.

## ROCKETS



Rockets have two explosive parts: the warhead and the rocket motor. Hazards vary between **high explosive to fragmentation**. Some warheads contain white phosphorus for smoke (spotting).

## MISSILES



Missiles have two explosive parts: the warhead and the rocket motor. **High explosive hazard.** Some missiles have proximity fuzes – they detonate within a certain distance of an enemy aircraft. **DO NOT APPROACH!**

## LAND MINES



Land mines should ALWAYS be considered live. **High explosive hazard.** Do not touch, handle, or remove!! Detonation is usually by contact or by hitting detectors such as wire or rods.

## UNEXPLODED ORDINANCE (UXO) RECOGNITION COLOR CHART

Listed below are colors that have been adopted by the Department of Defense to designate specific hazards with explosives. Should you come in contact with a UXO, please refer to the colors for specific hazards.

Colors will usually be painted on the munition as either a painted band around the projectile or rocket motor or, the entire projectile will be covered with the applicable color.



**WARNING** – UXO’s without a specific color should never be considered safe. Always treat UXO’s as live and do not touch!

**NOTE** – Paint on munitions may fade over time and GREEN can look LIGHT BLUE.

COLOR	HAZARD
Yellow	High explosive - indicates presence of explosive.
Light Red	Incendiary - made to cause fire upon detonation.
Black	Armor piercing.
Brown	Low explosive, usually for rocket motor propellant.
White	Illumination - usually produces high heat when activated.
Gray w/ Red Bands	Chemical Agent: harassing agent (i.e., tear gas, riot control)
Gray w/ Dark Green Bands	Chemical Agent: toxic agent.
Light Blue	Training or firing practice.
Bronze	Dummy/inert ammunition used for load training.

**WARNING** – *Light Blue* may designate training for the warhead however munitions may still have explosives by way of cartridges or rocket motors!

COLORS w/no significance	
Olive Drab	Munitions painted for camouflage.
Black lettering	Usually used for writing/identification.
White lettering	Usually used for writing/identification.



Below is an example of a UXO Chart developed by the US Air Force for UXO recognition. Included in the chart are more *examples of munitions* that may be found in the Eglin Range/Hurlburt Field areas.

## USAF UNEXPLODED ORDNANCE (UXO) RECOGNITION AND REPORTING CHART

**Class A - Bombs and Dispensers**

**A1** BOMB ←- 3 to 8 Ft →-

**A2** BOMB ←- 3 to 8 Ft →-

**A3** BOMB ←- 3 to 8 Ft →-

**A4** DISPENSER ←- 5-6 Ft →-

**Class B Rockets and Missiles**

**B1** MISSILE ←-6 - 20 Ft →-

**B2** ROCKET

**Class D - Landmines**

**D1** **D2** **D3** **D4** **D5**

**D6** **D7**

Explosive Ordnance  
Reconnaissance (EOR)  
INVOLVES THREE STEPS:

**IDENTIFY, MARK, AND  
REPORT.**

- Recognize the UXO hazard.
- Take immediate action (mark and evacuate).
- Report the UXO hazard.
- DO NOT TOUCH IT!
- Do not move closer to it.
- Mark it from where you are (make sure the marker is visible from all directions and at night).
- Use protective measures to include evacuation, isolation, and barricades.
- Report it by class and number.

**Class C - Projectiles and Mortars**

**C1** **C2** **C3** **C4** **C5**

**PROJECTILES**

**C6** **C7** **C8**

**C9** **C10** **C11** **C12** **C13**

**MORTARS**

**Class E - Bomblets**

**E1** **E2** **E3** **E4** **E5** **E6** **E7** **E8** **E9** **E10** **E11** **E12**

**Class F - Rocket Propelled Grenades and Grenades**

**F1** **F2** **RPGs**

**F3** **F4** **F5** **F6** **F7**

**Grenades**

Scale = feet or inches

**UXO CHECKLIST ITEMS**

1. Call your unit control center or survival recovery center to report
  - Name/Rank
  - Unit
  - Phone/Radio Net
  - Date/Time
2. Report the location and cordon size of the UXO  
(Bldg number, grid coordinate, distance from a landmark or bldg, etc.) Explain how the UXO is marked and the distance between the UXO and marker.
3. Report the "Class" or shape (i.e. "Bravo 1" UXO).
4. Report any identifying features  
For example the color, size, length, and markings
5. Report the condition of the UXO  
Is it leaking? Is it broken? Etc.
6. Report any other significant information









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## BOMB THREAT STAND-OFF DISTANCE GUIDE National Counterterrorism Center

Shown below is chart developed by the National Counterterrorism Center showing recommended withdrawal distances for several types of Suspicious Packages/Articles as described in this policy.

UNCLASSIFIED

Bomb Threat Stand-Off Distances			
Threat Description	Explosives Capacity <sup>1</sup> (TNT Equivalent)	Building Evacuation Distance <sup>2</sup>	Outdoor Evacuation Distance <sup>3</sup>
 Pipe Bomb	5 LBS/ 2.3 KG	70 FT/ 21 M	850 FT/ 259 M
 Briefcase/ Suitcase Bomb	50 LBS/ 23 KG	150 FT/ 46 M	1,850 FT/ 564 M
 Compact Sedan	500 LBS/ 227 KG	320 FT/ 98 M	1,500 FT/ 457 M
 Sedan	1,000 LBS/ 454 KG	400 FT/ 122 M	1,750 FT/ 533 M
 Passenger/ Cargo Van	4,000 LBS/ 1,814 KG	600 FT/ 183 M	2,750 FT/ 838 M
 Small Moving Van/ Delivery Truck	10,000 LBS/ 4,536 KG	860 FT/ 262 M	3,750 FT/ 1,143 M
 Moving Van/ Water Truck	30,000 LBS/ 13,608 KG	1,240 FT/ 378 M	6,500 FT/ 1,981 M
 Semi-Trailer	60,000 LBS/ 27,216 KG	1,500 FT/ 457 M	7,000 FT/ 2,134 M

This table is for general emergency planning only. A given building's vulnerability to explosions depends on its construction and composition. The data in these tables may not accurately reflect these variables. Some risk will remain for any persons closer than the Outdoor Evacuation Distance.

