



CRAB ORCHARD NWR UNEXPLODED ORDNANCE (UXO) SAFETY



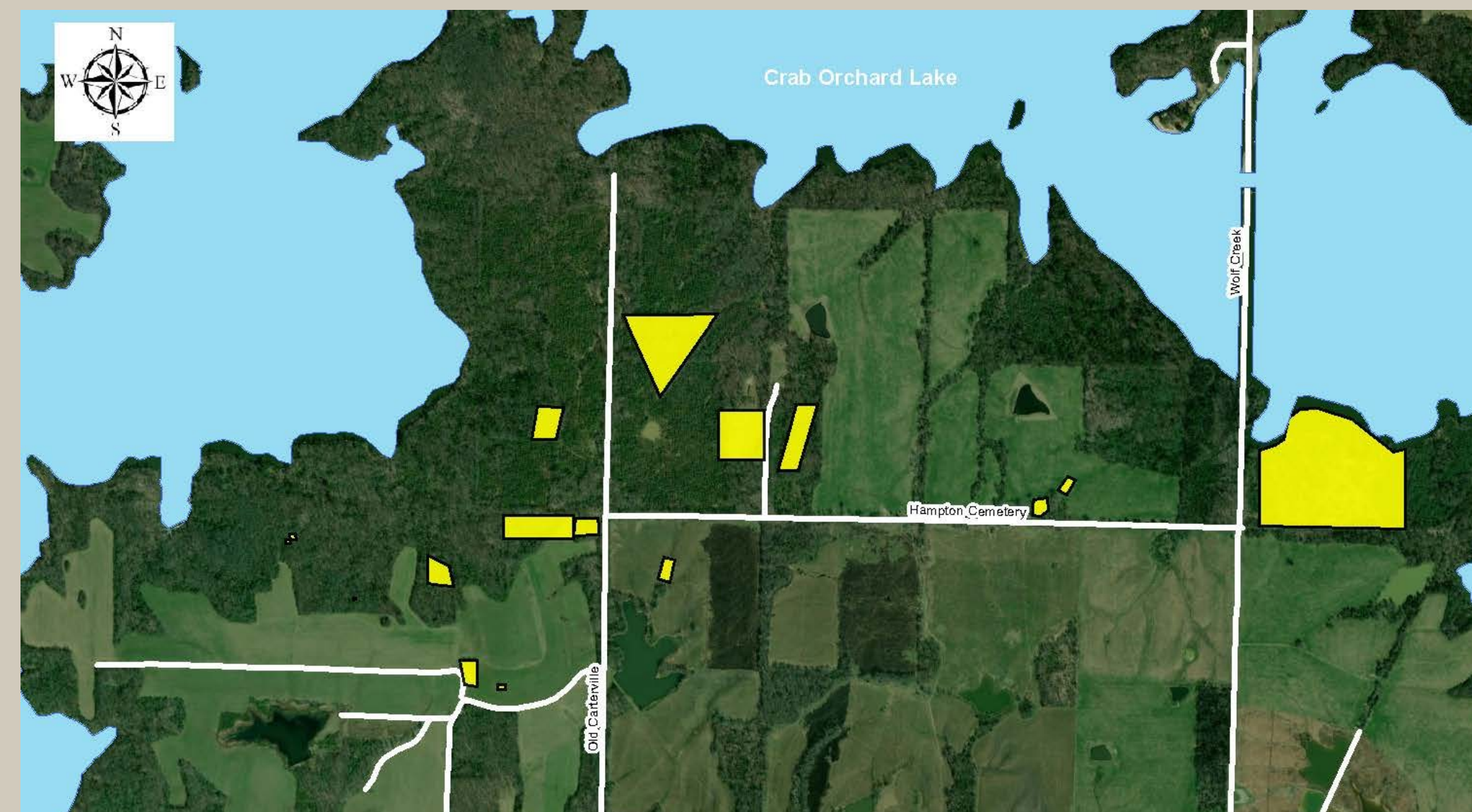
What is a UXO?

UXO are military munitions that did not detonate properly. Many people consider UXO "duds" but there is no guarantee a UXO won't explode.

All suspect UXO are considered **extremely dangerous!**

- Treat UXOs as live.
- Don't handle
- Use the 3 R's!

Explosives such as M1A1 land mines and M48 series projectiles fuses were manufactured on Crab Orchard during WWII. After WWII, excess explosives were disposed of in such a way that we don't know where all UXO are.



WARNING - Parts of the Refuge contain UXO.

See map above for location of UXO detonation grounds and burial pits.

After WWII, military munitions were blown up and the metal pieces buried in these areas. Do not dig in the ground or pick up metal objects in this section of the Refuge.

Follow the 3 R's of UXO Safety

1. **Recognize** UXO come in many shapes and sizes. It can be rusty or look like new. It can be out in the open, hidden in bushes or partially buried.
2. **Retreat** If you encounter or suspect you may have encountered a UXO:
 - do not touch it or otherwise disturb it.
 - Do not run – leave the area following the same path on which you entered.
 - Landmark the general area (NOT the munition) with a hat, piece of cloth or with a piece of plastic tied to vegetation.
3. **Report!** Reporting it can save another person from injury or death. Report anything you think could be UXO.

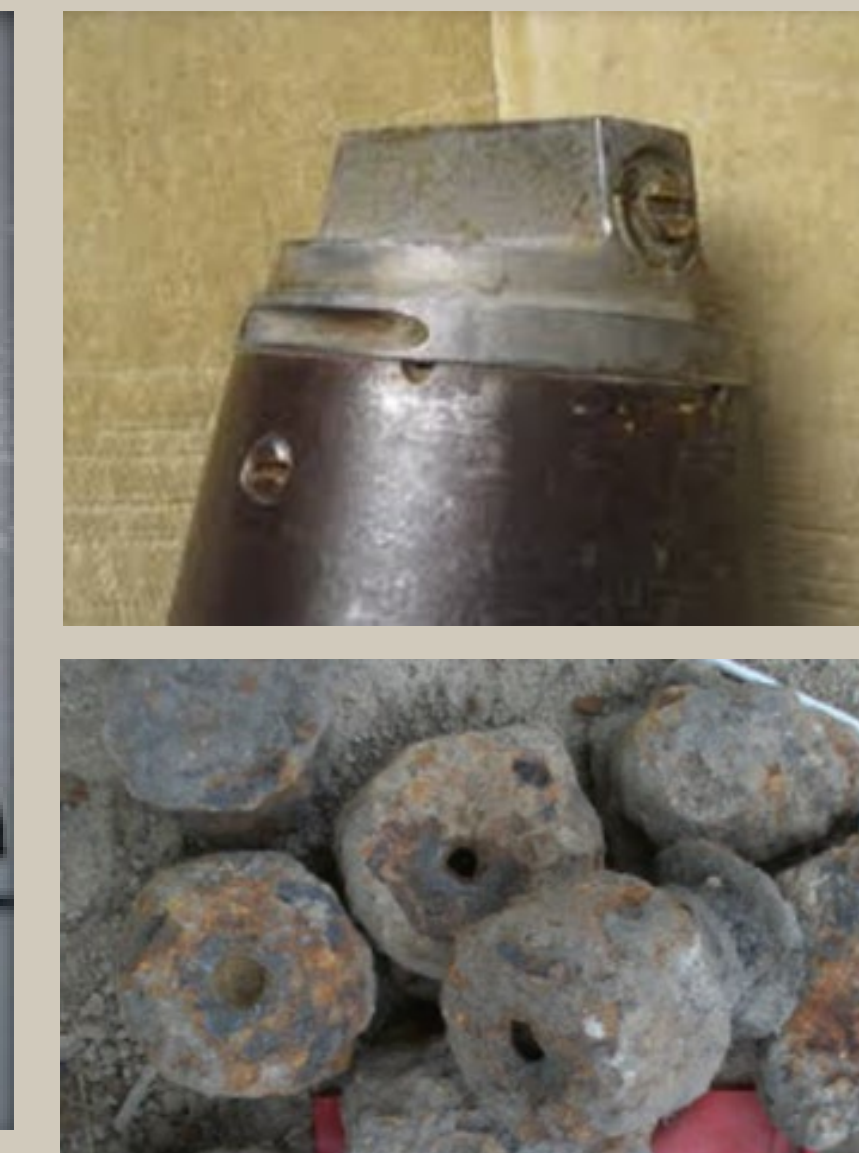
There are many kinds of **UXO** that may resemble a:

- Pipe
- Soda can
- Ball
- Bullet-shaped object

UXO may be:

- On the surface
- Partially or completely buried
- Exposed after water/soil erosion, fires, or vegetation removal
- Look new or old
- Intact or broken apart
- Components (like fuses) that still contain sensitive explosives, propellants or pyrotechnics
- Found by itself
- Found with other munitions
- Found both on land and in water

**IF YOU DID NOT DROP IT,
DO NOT PICK IT UP!**



Top Left: M48 projectile fuse with windshield and internal flashtube intact. Top Right: M48 fuse in projectile (no windshield or flashtube). Bottom Right: Fuse cases found decades later on the Refuge.

**It is important to understand
how to react responsibly in
the presence of UXO**

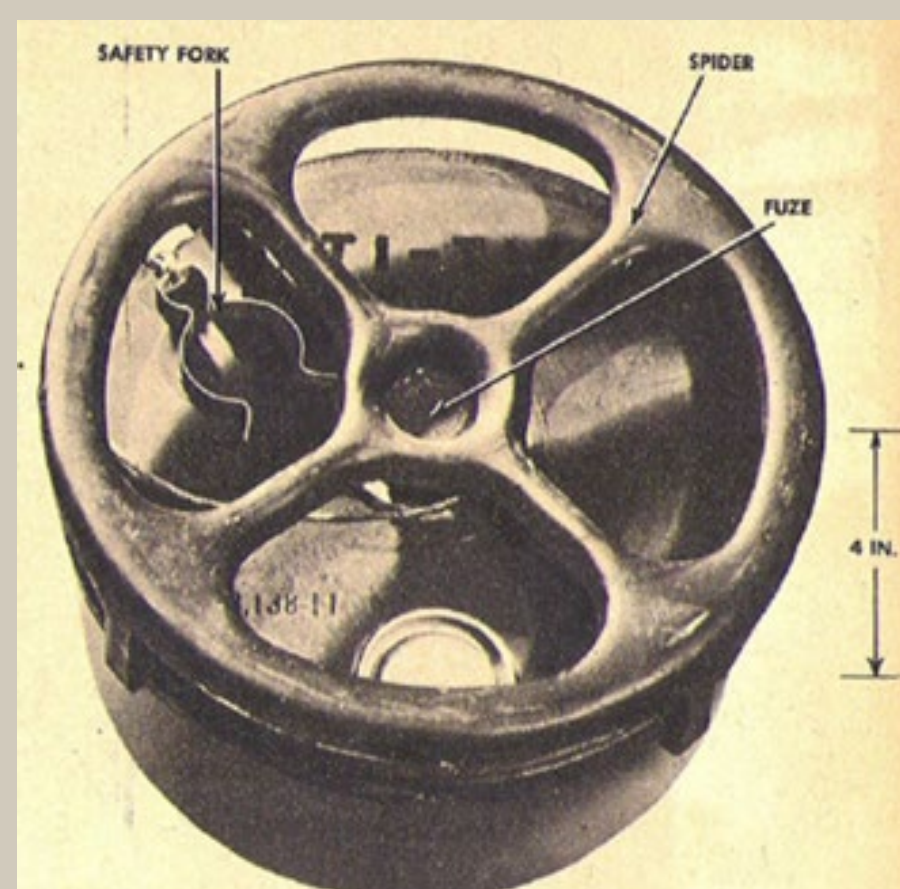
- **STOP!**
- Do not transmit radio frequencies near UXO (walkie-talkies, cell phones, etc.).
- Do not attempt to remove anything near UXO.
- **DO NOT** touch, move or disturb UXO.
- Note the UXO location and clearly mark the area, if possible.

Immediately report suspected UXO and if possible, include the following information:

- UXO appearance and estimated size,
- distinctive features of ordnance (shape and color)
- nearby structures or landmarks.

**Report UXO to Refuge
personnel:**

Sam Finney 618-694-6511
Justin Sexton: 618-997-3344



Top Left: Diagram of new 1940s M1A1 landmine (with 'spider' attachment). Top Right: M1A1 mine chassis found decades later on the Refuge. Bottom Left: M1A1 Landmine. Bottom Right: M1A1 fuse.



The M1A1 fuse (photo on bottom right) is dangerous because it may contain TNT that can still easily explode. TNT can be relatively stable over decades and requires high velocity strike or a hot fire to make it explode.