



# Unexploded Ordnances on the Idaho National Laboratory (INL) Site

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# What We'll Cover

- Background and INL Site History
- Operable Units and Remedy
- Current Response Processes
- Future Actions

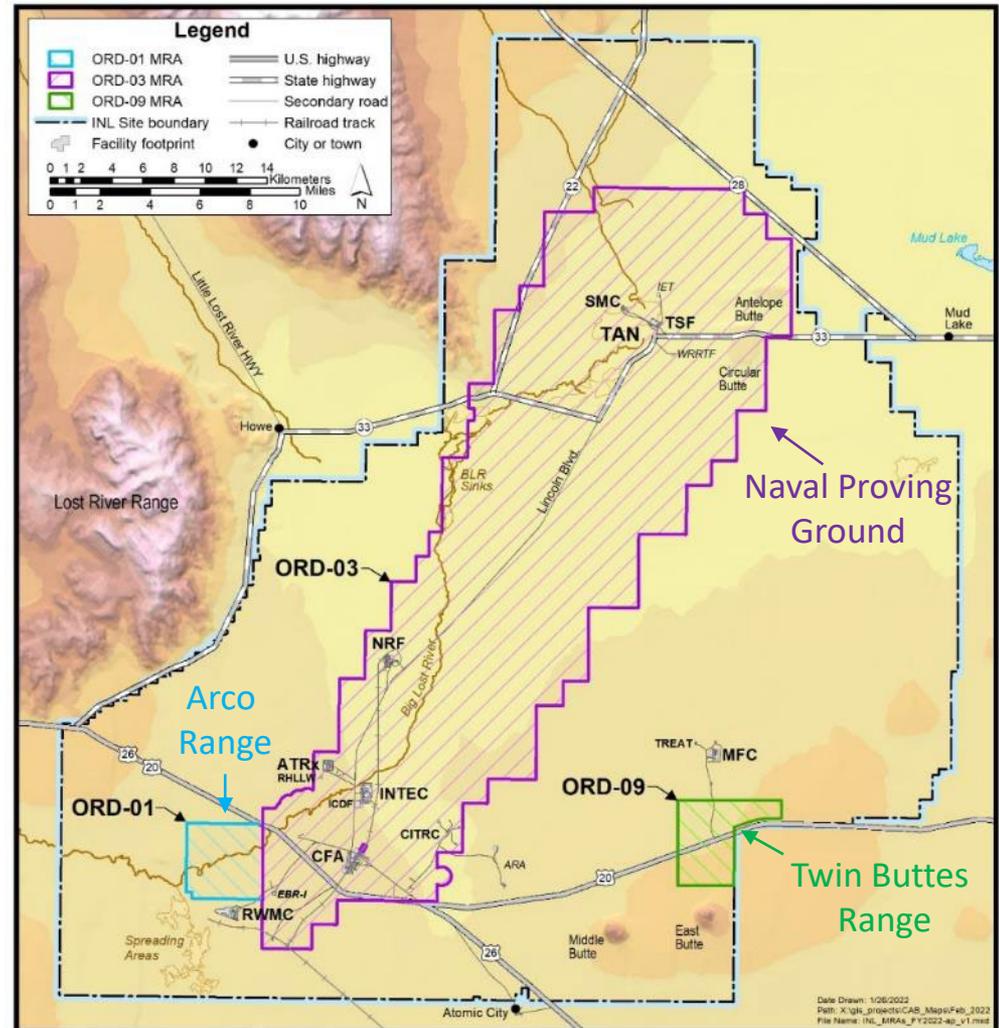


Explosives transport vehicle recovery operations



# Site History of INL Ordnance Areas

- World War II: portions of the site used as bombing ranges and ordnance proving grounds
  - Naval Proving Ground
  - Arco High Altitude Bombing Range
  - Twin Buttes Bombing Range



# Site History of INL Ordnance Areas

3-in inert proofing projectiles



Sand-filled practice bomb



16-in proofing projectile



100-lb practice bomb



# Unexploded Ordnance Operable Units

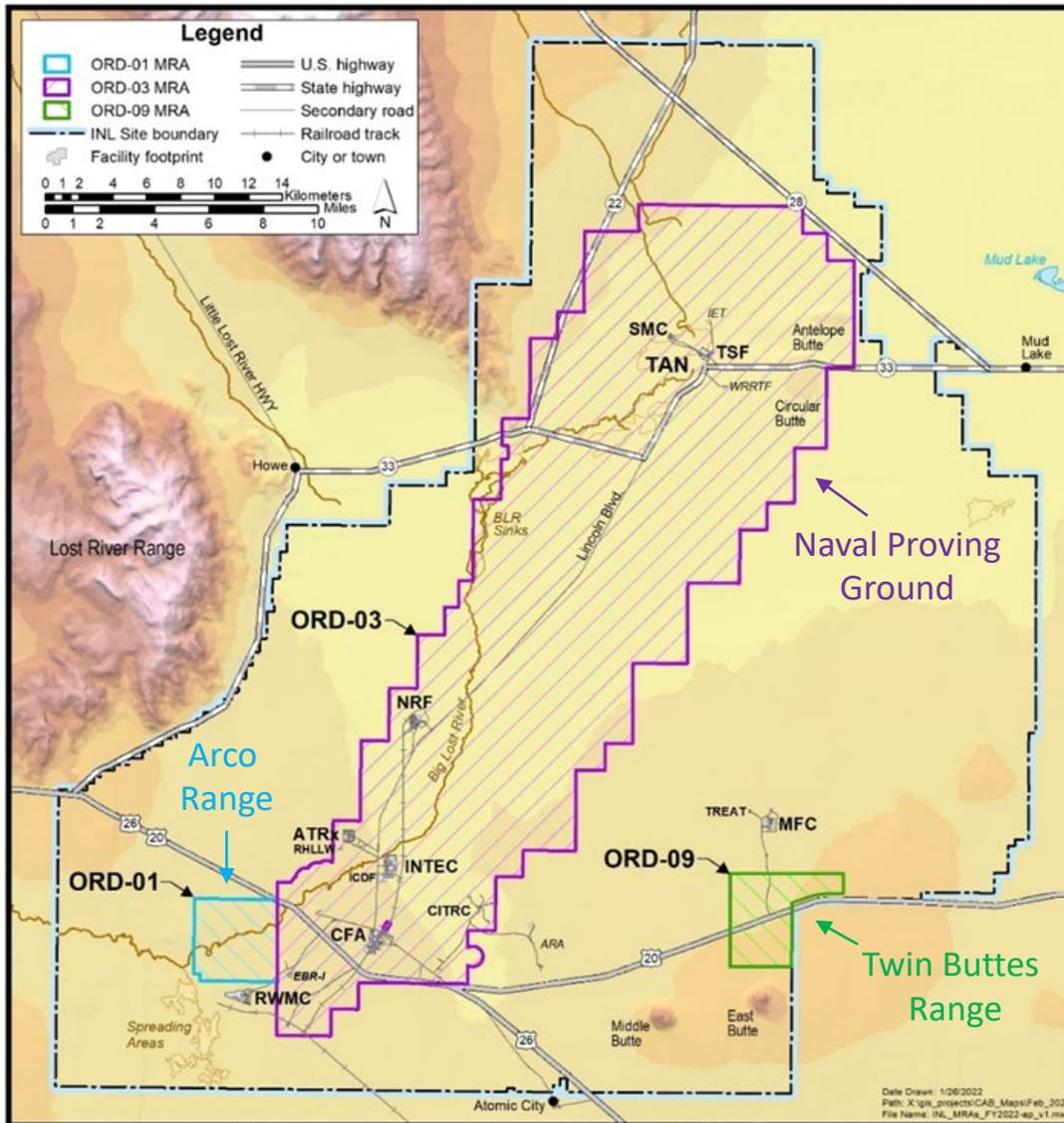
- Operable Units 6-05 and 10-04
- Record of Decision - 2002
- Remedial Action Objective
  - “UXO detection, removal, and institutional controls...to mitigate potential human health risk from inadvertent contact to UXO”
- Selected Remedy
  - Detect, remove, and dispose
  - Institutional controls



# Remedial Action Remedy

- Four major steps:
  - Step 1: Determine land use
  - Step 2: Assess the area
  - Step 3: Characterize and conduct hazard assessment
  - Step 4: Implement the appropriate ordnance response





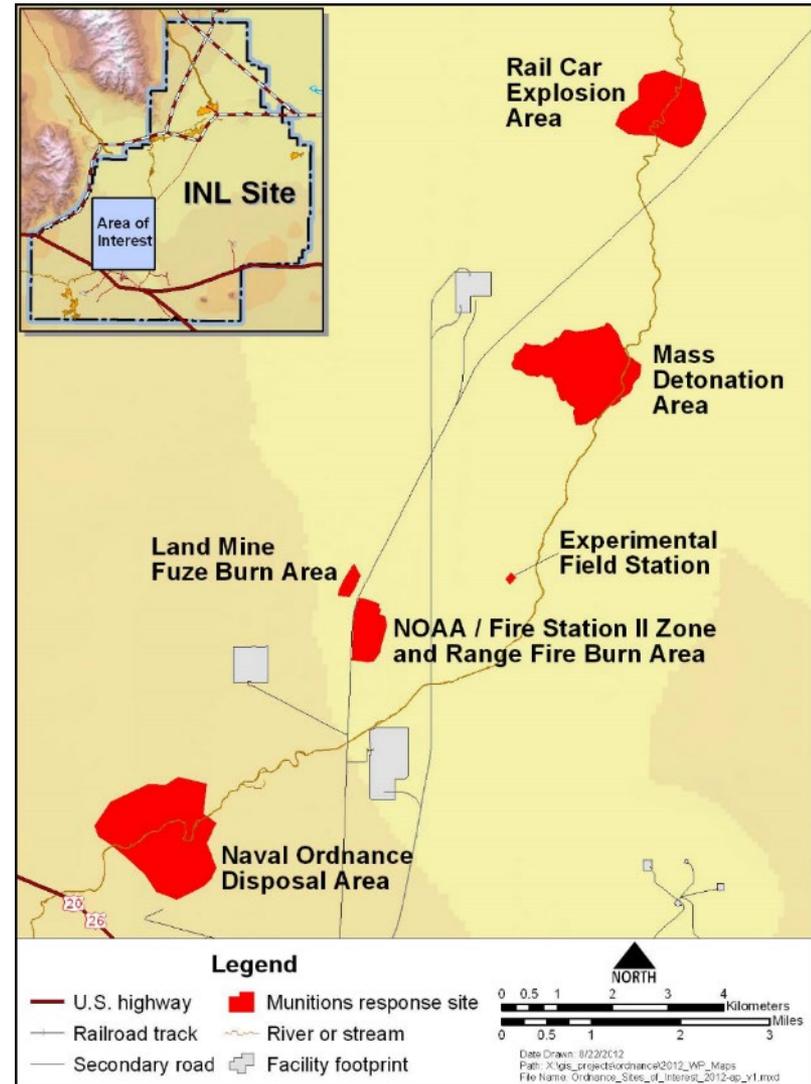
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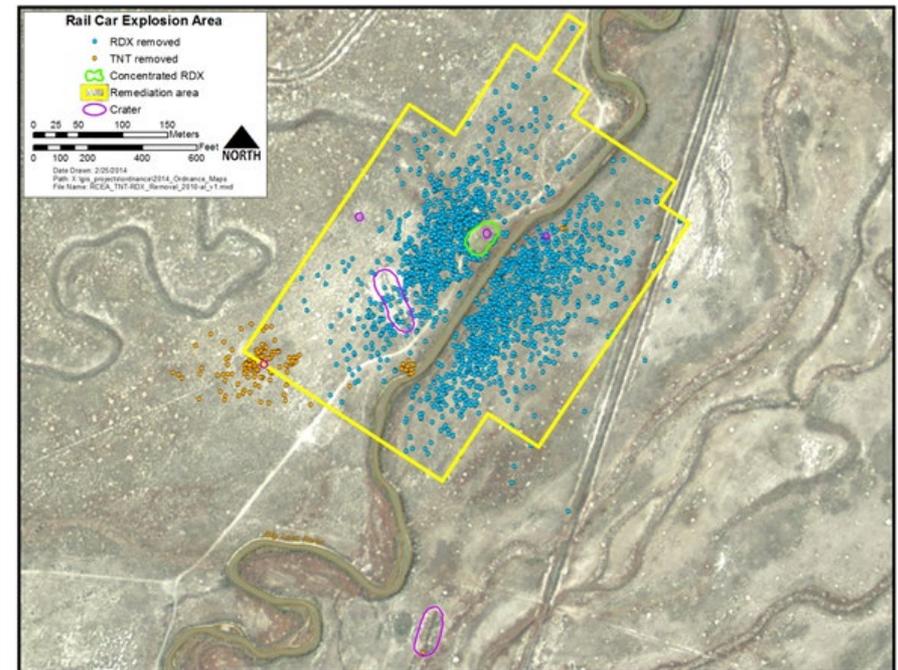
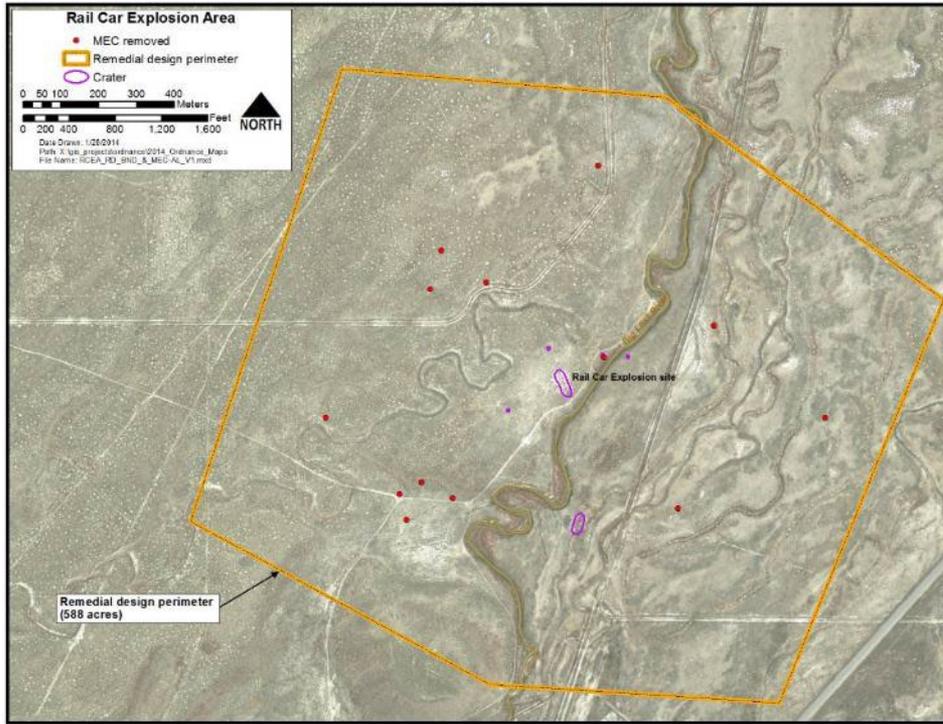
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# Naval Proving Ground

- Completed geophysical and visual pedestrian surveys
- Five confirmed unexploded ordnance sites
  - Naval Ordnance Disposal Area
  - Land Mine Fuze Burn Area
  - Experimental Field Station
  - Rail Car Explosion Area
  - Mass Detonation Area



# Naval Proving Ground – Rail Car Explosion Area



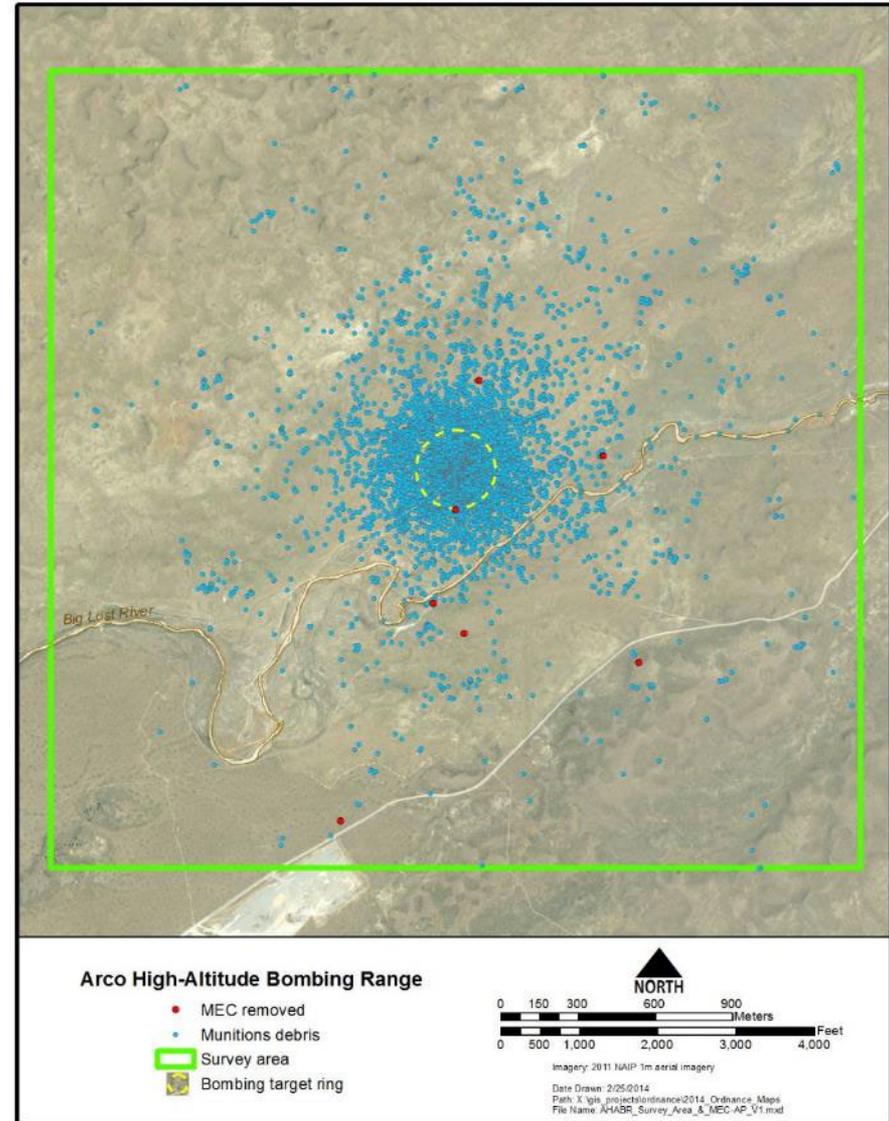
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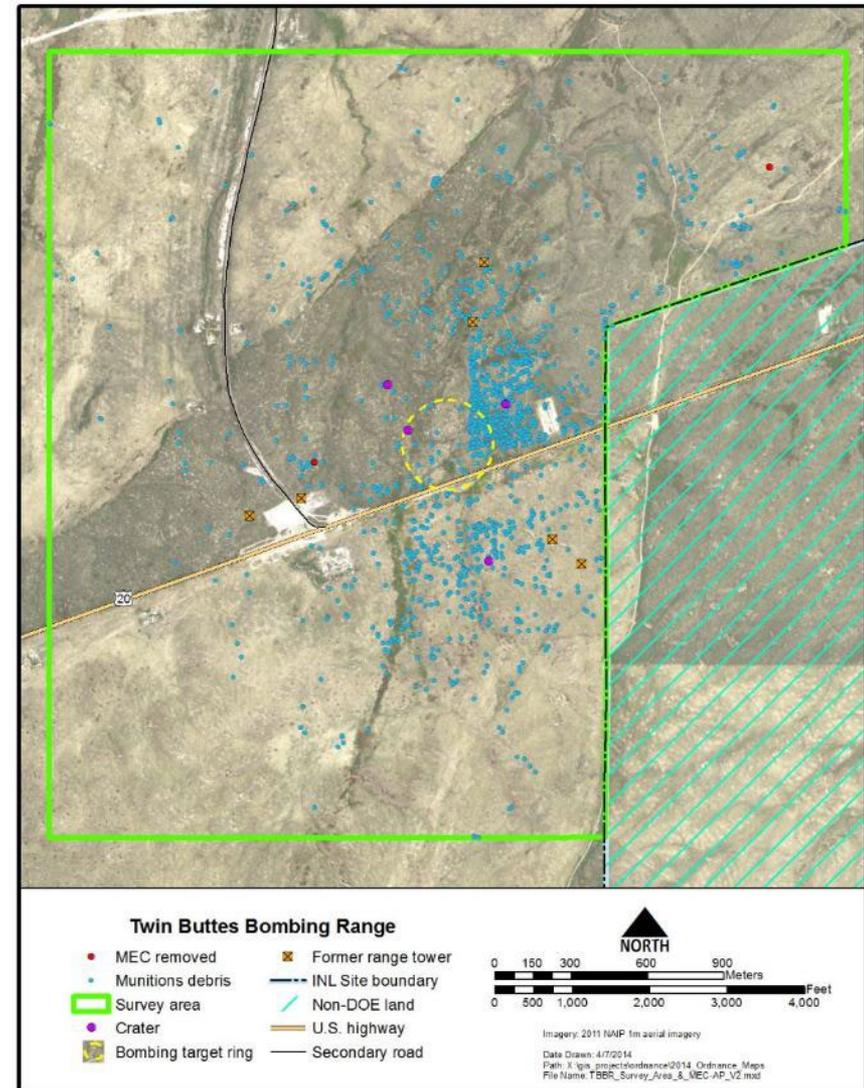
# Arco High Altitude Bombing Range

- Completed visual pedestrian survey
- Miles walked: 601
- Ordnance debris: 6,350
- Items destroyed: 7



# Twin Buttes Bombing Range

- Completed visual pedestrian survey
- Miles walked: 492
- Ordnance debris: 1,423
- Items destroyed: 2



# On-Site Ordnance Disposal

September 25, 2010 (left) and September 23, 2011 (right)



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# On-Site Ordnance Disposal, March 24, 2012

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Video of Ordnance Disposal

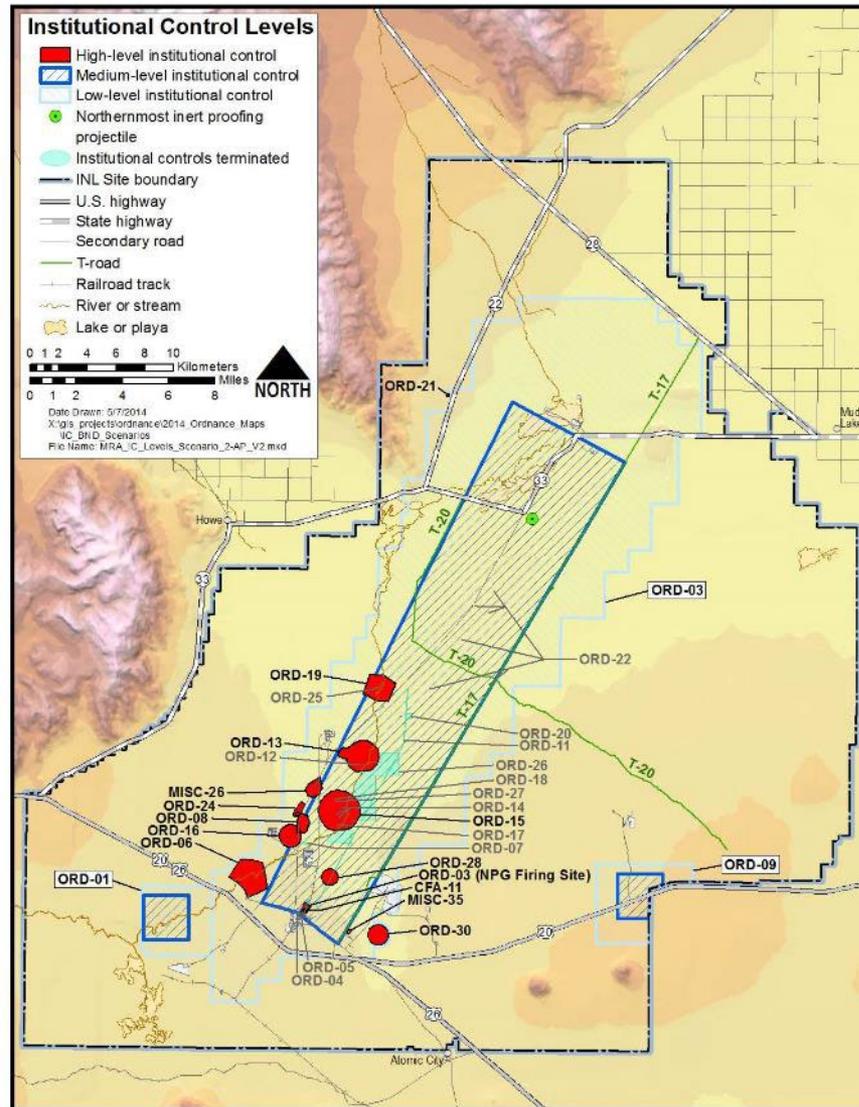
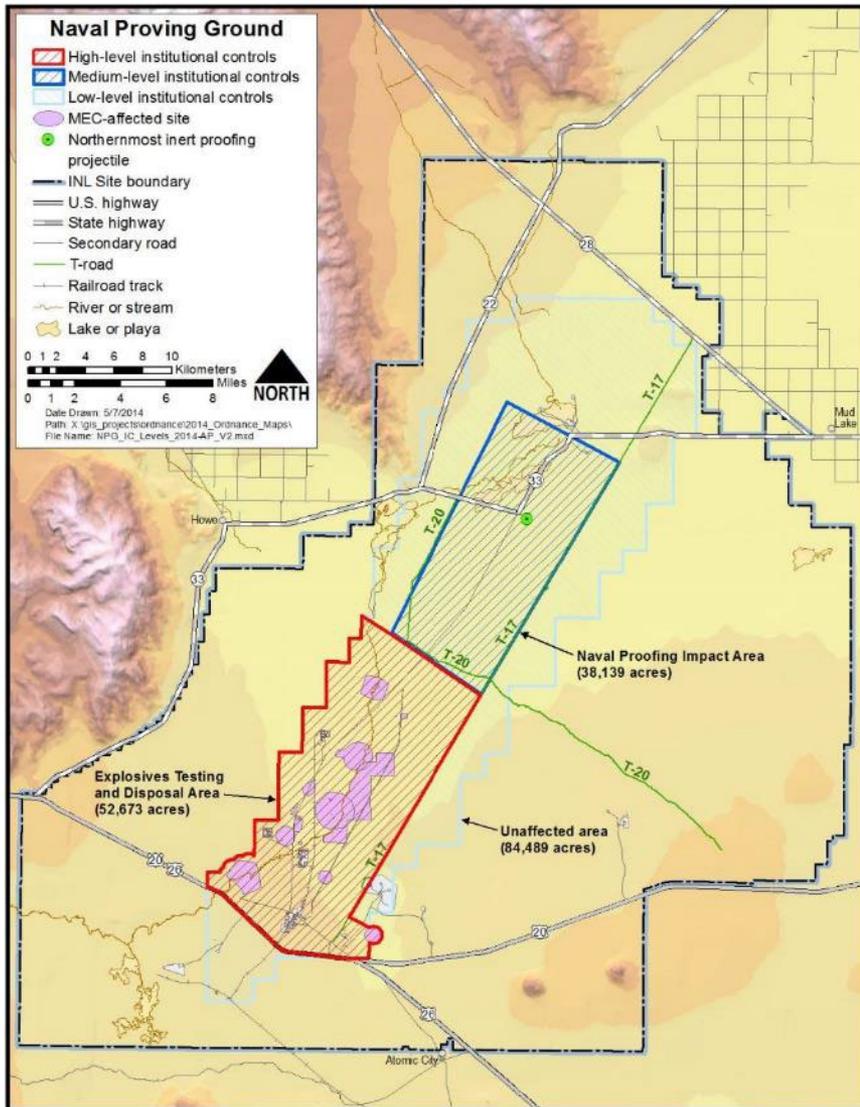


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# Institutional Control Boundary Changes



# Current Response Processes

- Record of Decision requires institutional controls to restrict access
- Two processes are needed for ordnance responses:
  - Munitions Response Area Activity Notice process
  - Discovery of Munitions and Explosives of Concern process



Field personnel locating projectile



16-in projectile



# Process for Disturbance Activities

- Issue Munitions Response Area Activity Notice (MRAAN)
  - Complete before disturbance activity
- UXO qualified personnel conduct:
  - Assessment of location
  - Characterization and hazard assessment
  - Implement responses
  - Report



# Process for Discoveries



UXO  
personnel  
investigating  
sand-filled  
practice bomb



- Report discovery
- Discovery process initiated
- Remediation personnel perform field verification and recommendation
- UXO qualified personnel conduct:
  - Assessment of location
  - Characterization
  - Implement response
  - Report
- If no safety hazard, close discovery
- If safety hazard, recover and destroy



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Acronym key

UXO: unexploded ordnance



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# Questions?



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