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An Introduction to the Los Alamos National Laboratory's CUAS Program

March 20, 2019

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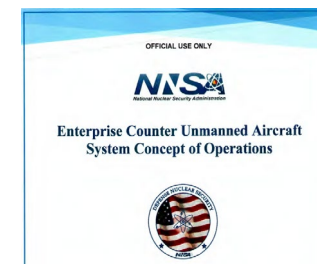
The NDAA grants authority to the Secretary of Energy, in consultation with the Secretary of Transportation, to act on the UAS threat

- Authority Granted by Congress



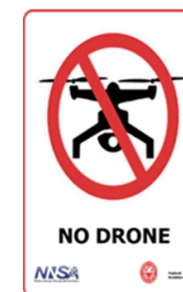
The Secretary of Energy develops and approves the actions required to mitigate the UAS threat and ensure the safety/security of the covered facility or asset.

- Direction provided by NNSA



LANL implements CUAS using an integrated approach to mitigate threats in cooperation with the FAA and according to the law.

- LANL pilot program execution migrates to remaining NNSA sites



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Mission

- LANL conducts comprehensive testing to ensure CUAS efforts are complementary and integrated into the laboratory's physical security protection strategy.

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Three-Phased Approach to System Fielding

Phase 1

System Installation and Testing

- ✓ Performance Testing Subcontractor Award
- ✓ Node and Console Installation
- ✓ System Operator Training and Certification
- ✓ **Federal Approval to Conduct Formal Performance Testing (07 May 18)**

Phase 2

Performance Testing and Effectiveness Declaration

- ✓ System Testing Against Multiple Platforms
- ✓ Emergency Response Render Safe Policies & Procedures
- ✓ Rules Of Engagement (ROE) development and approval
- ✓ Full Cyber Accreditation
- ✓ System Effectiveness Declaration

Phase 3

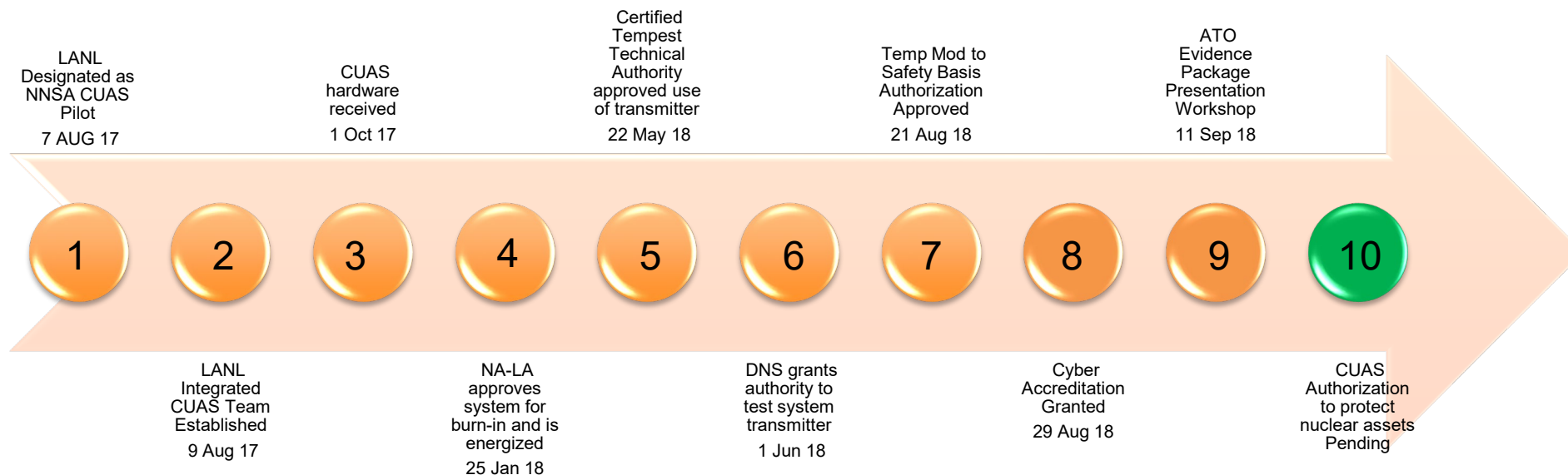
Program Deliverables

- ✓ After Action Report
- ✓ Implementation Guide
- ✓ Installation, Testing and CONOPS Lessons Learned
- ✓ CUAS Training Plan
- ✓ **Evidence Package submitted to DNS 27 SEP 18**

WE HAVE AN INTEGRATED PLAN TO ENSURE SUCCESS

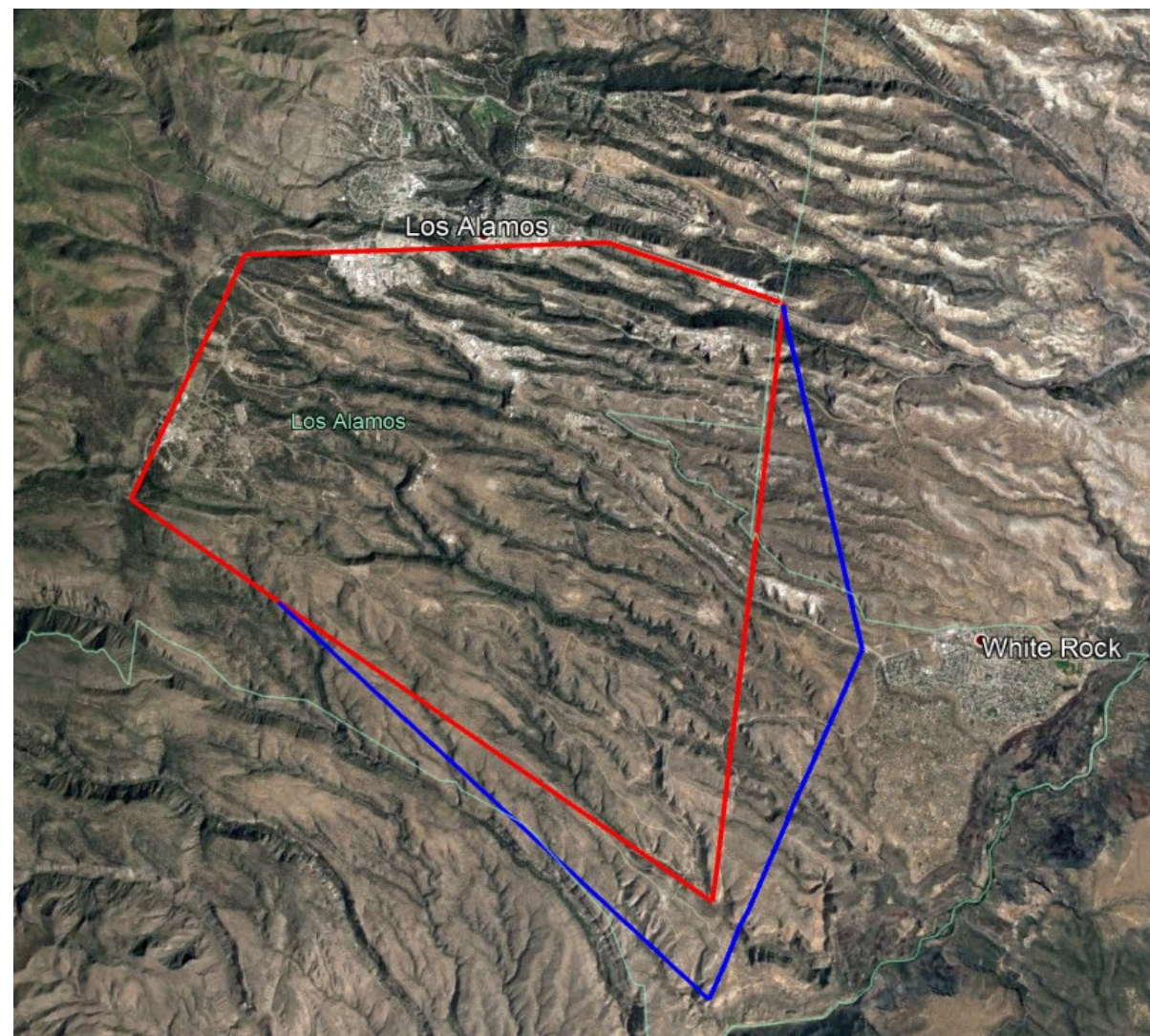
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LANL CUAS Timeline



DETAILED PLANNING DRIVING IMPLEMENTATION EXECUTION

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Engaging our key stakeholders

Communication Plan

- Congressional notification
- State and local notifications
- Lab notifications

FAA/DNS Workshop

Weekly Updates to DNS



PROACTIVE ENGAGEMENT CENTERED ON MESSAGING NATIONAL AND PUBLIC SAFETY

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Keeping our community informed

- Providing information about the No Drone Zone and the Laboratory's restricted airspace.
- Key Messages centered on information about the new system and the ability to take control of drones intruding into LANL airspace.
- The message appeared in several news outlets around New Mexico and other states.
- Briefings conducted with local government officials to include County Administrator, Chief of Police, Fire/EMS Chief and CEO of local hospital.
- Messaging through social media included information on Facebook, Twitter and YouTube.
- "NO DRONE ZONE" signs have been posted around LANL.



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Decision Matrix Development

- A Decision Matrix based on the approved CONOPS and capabilities used to respond to the threat.
- CUAS Supervisor detects unauthorized platform in restricted airspace.
- Actions taken to Identify and Track the unauthorized platform.
- CUAS Supervisor neutralizes threat platform.
- Render Safe protocols implemented.
- CUAS Supervisor makes required local and external notifications

EXECUTING A DELIBERATE AND APROPRIATE RESPONSE

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Render Safe CONOPS

LANL's current policies and procedures are well aligned to manage a suspicious package.

- Additional response procedures include:
 - Initial response by the Pro-Force to the downed UAS location
 - Los Alamos Police Department Response
 - Unauthorized platform disposition
 - Notifications to local stakeholders, FAA and DOE
 - Evidence preservation and chain of custody
 - Supplemental Reports and notifications

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CUAS and the Community

- We respect the rights of citizens to legally operate UAS.
- We will work to communicate the rules and responsibilities with regard to operating UAS near LANL.
- We will keep current with emerging laws, case law and trends as it relates to UAS and CUAS
- We will keep current with emerging laws, case law and trends as it relates to UAS and CUAS
- We will defend the Laboratory against unauthorized UAS operations.

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