



# An Overview of Sandia National Laboratories

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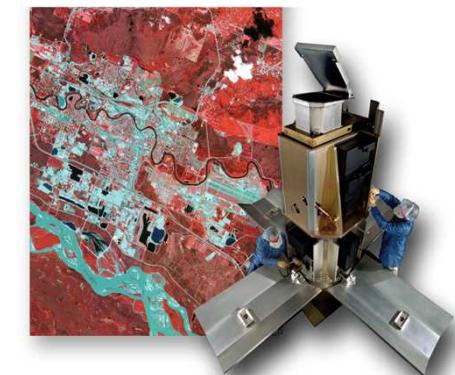
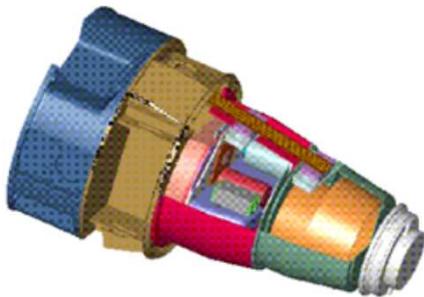
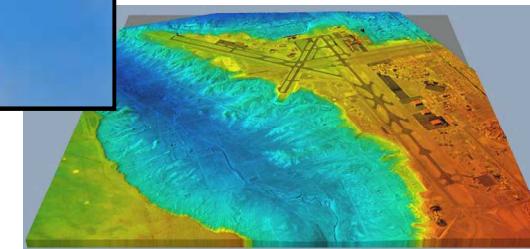
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<http://www.sandia.gov/mst/>





# Sandia National Laboratories Sites



**Weapon Evaluation Test Lab  
(WETL)  
Amarillo, Texas**



**Tonopah Test Range  
Tonopah, Nevada**



**Pacific Missile Range  
Kauai, Hawaii**



**Sandia New Mexico  
Albuquerque, New Mexico**



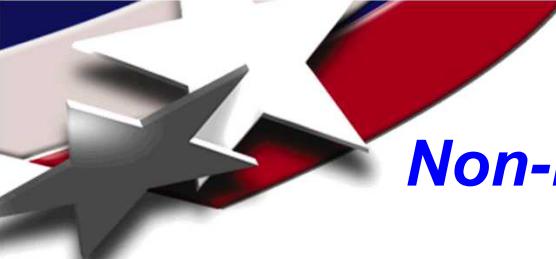
**Sandia California  
Livermore, California**



**Waste Isolation Pilot Plant  
(WIPP),  
Carlsbad, New Mexico**



**Yucca Mountain Repository  
Yucca Mountain, Nevada**



# *Sandia's Historical Primary Mission: Non-Nuclear Components in Nuclear Weapons*

- Design/Development: All Non-Nuclear NW Components (~90% of total parts)
- Production: Neutron Generators
- Nuclear Surety: Safety, Security (incl. use control), Reliability & Survivability

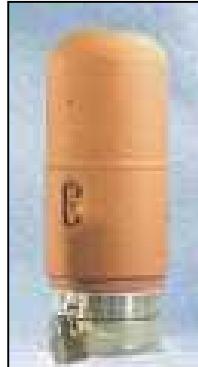


**W88 Ballistic Missile  
Arming, Fuzing, &  
Firing System**

Radars  
Impact fuzes  
Shock absorbers  
Casing  
Detonators  
Firing sets  
Capacitors  
Switches  
Switch tubes  
Rectifiers  
Programmers  
Neutron generators  
Reservoirs  
Stronglinks, PALs  
Batteries  
Timers  
Spin generators  
Parachutes  
Ejector systems  
Access controllers  
Training & Surveillance



**B83 Strategic Bomb**



**Neutron  
Generator  
Production**

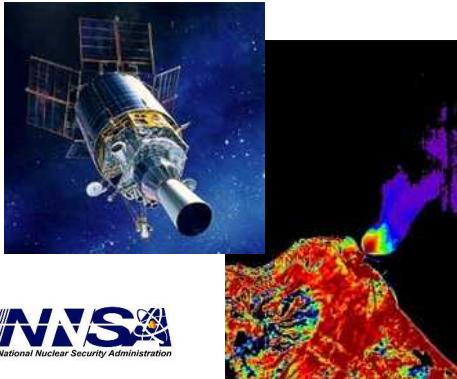


# Today -- Broader Mission as a National Security Science & Engineering Lab

Though we are an NNSA lab, we support multiple government agencies:

- Advanced military technologies
- Treaty verification, nonproliferation, counterproliferation
- Homeland security, countering weapons of mass destruction
- Energy & Infrastructure assurance

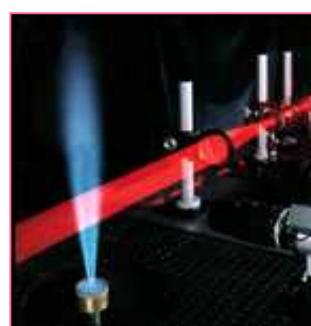
## Non-Proliferation



## Physical & Cyber Security



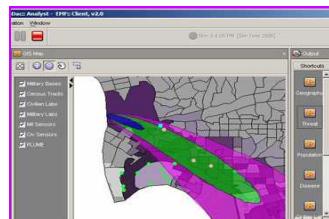
Missile Defense



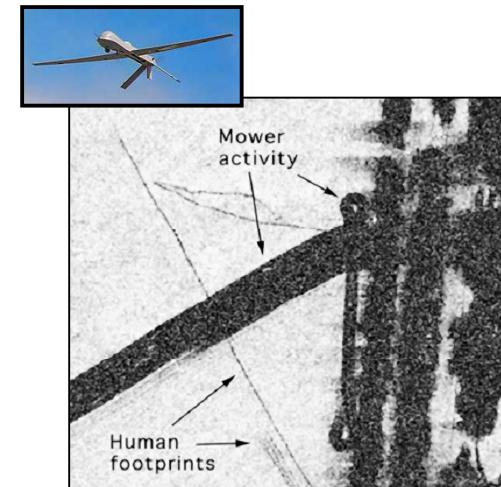
Combustion Research



Non-Destructive Structural/Electrical Eval of Aging Aircraft



Threat & Vulnerability Assessments

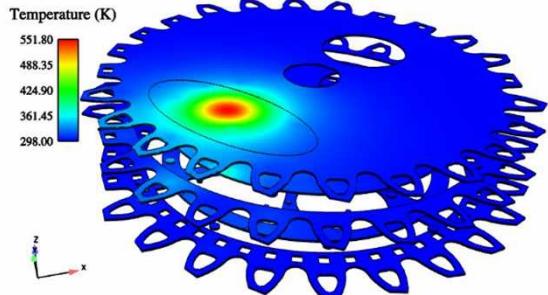


Synthetic Aperture Radar Imaging

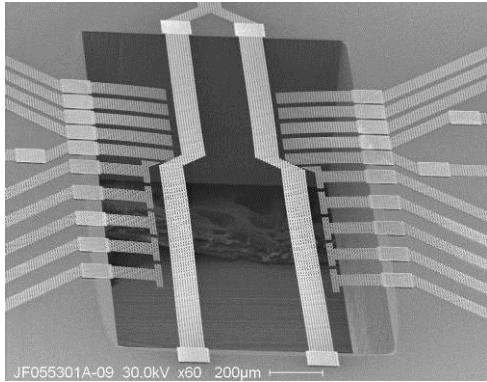
Chem/Bio/Explosive Detection/Neutralization



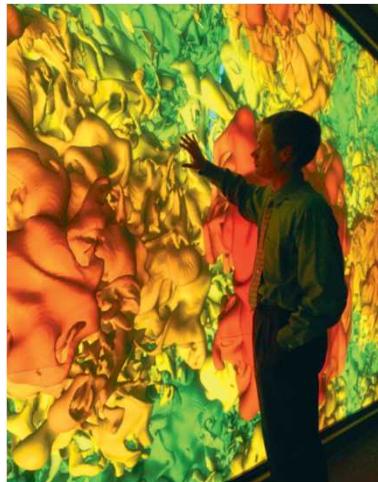
# ***Sandia's Mission Support Relies on Strong Science and Engineering***



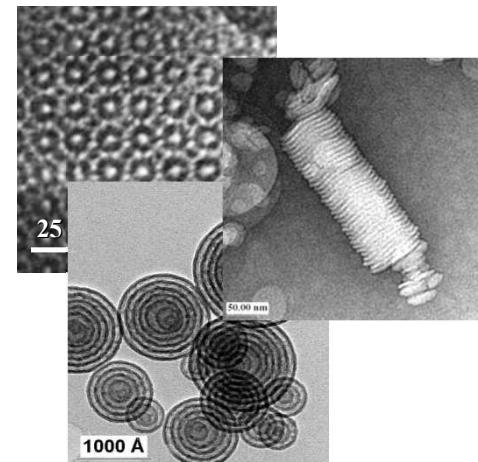
**Engineering Sciences**



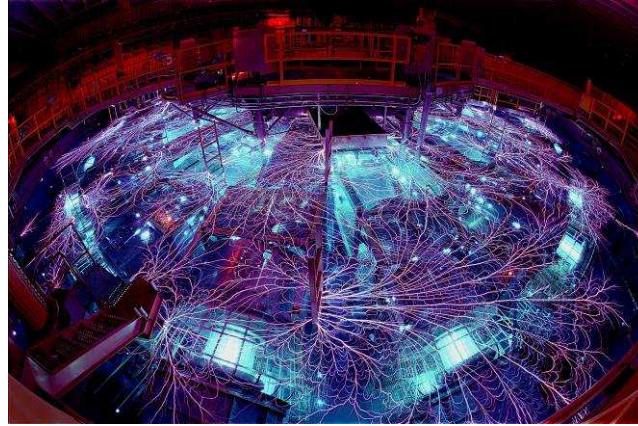
**Microelectronics  
and Photonics**



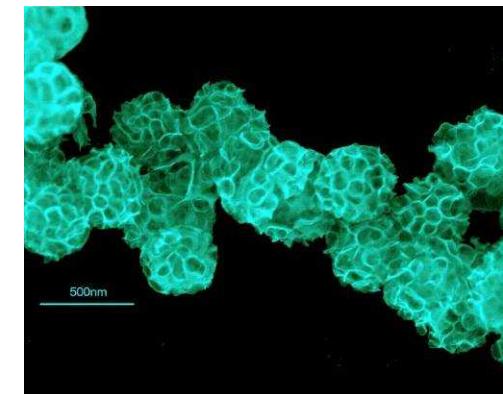
**Computational and  
Information sciences**



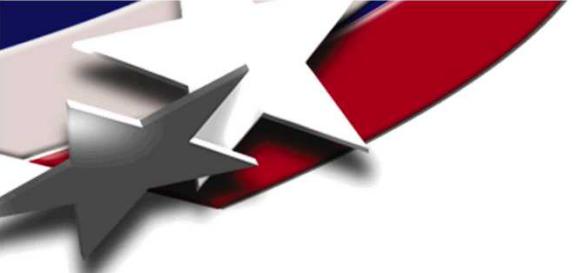
**Materials Science and  
Technology**



**Pulsed Power**



**Biotechnology**



# *Sandia Has a Highly Skilled Workforce*

- More than 8,200 full-time employees
- More than 1,500 PhDs and 2,700 MS/MAs
- 2,200 on-site contractors
- \$2+ billion total annual budget

