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Sandia National Laboratories

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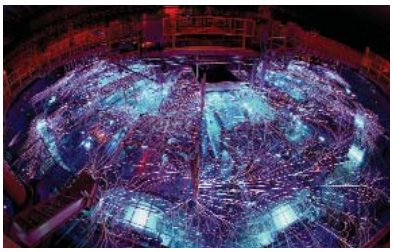
Sandia National Laboratories is a national security lab with the core purpose of 'Securing a Peaceful and Free World Through Technology.'

We provide technology solutions to challenging problems that threaten peace and freedom. Sandia has two primary facilities: a large laboratory and headquarters in Albuquerque, N.M., and a smaller laboratory in Livermore, Calif. We have about 8,600 employees and an annual budget of about $2.3 billion.

Sandia, managed by a subsidiary of the Lockheed Martin Corp., works primarily for the Department of Energy's National Nuclear Security Administration (NNSA), ensuring the safety, security, and reliability of the U.S. nuclear arsenal. Our other missions include energy and critical infrastructure R&D, nonproliferation and materials control, and developing responses to emerging national threats, including terrorism and chemical/biological warfare. Clients other than NNSA include other Department of Energy offices, the Department of Homeland Security, and the Department of Defense.



Sandia's giant "Z machine," the world's most powerful x-ray generator, is used for fusion energy research and to test the effects of radiation on weapon components. The machine routinely heats deuterium pellets to temperatures that exceed those in the sun.

Notable projects that Sandia has completed or is continuing to develop include:

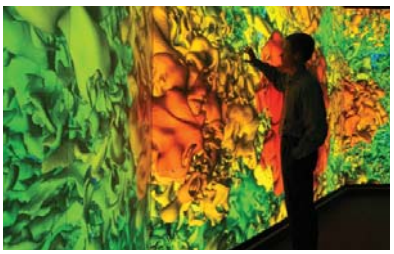
- Ongoing cooperation with NASA to better assess damage to the space shuttle during flight and to identify when repairs need to be made,
- Synthetic aperture radar, an all-weather, day/night imaging technology that enables mapping with a precision thousands of times greater than previously possible,
- A hand-held MicroChemLab™ that detects chemical, biotoxin, and pathogen signatures,
- The PAN Disrupter™, a device that can disable terrorist-type bombs without detonating them,
- Radiation-hardened microchips that enable electronics in defense and space hardware to operate for extended periods in high-radiation environments,
- Technology for improving the security of power systems and dams,
- Intelligent machines and robotics that perform many security and law-enforcement tasks without putting humans in harm's way,
- Semiconductor light-emitting diodes that could eventually replace incandescent and fluorescent lighting, saving huge amounts of electricity.

President George W. Bush traveled to Sandia in August 2005 to sign the National Energy Policy Act and tour Sandia's world-class solar test facilities.

Sandia's primary research specialties that allow us to develop such technology include:

- Computational and information sciences,
- Microelectronics and photonics sciences,
- Materials and process sciences,
- Engineering sciences, and
- Pulsed power sciences (including fusion energy R&D).

Sandia partners with U.S. industry, academia, and government agencies to accomplish its work. We have 24 user facilities—unique R&D facilities available for use by approved partners. These include the Combustion Research Facility, the Explosives Components Facility, the Intelligent Systems and Robotics Center, the Primary Standards Laboratory, and the Shock Technology and Applied Research Facility.



Computer modeling and simulation are integral to understanding complex phenomena in science and engineering. Here, a researcher studies materials interactions on a room-sized computer simulation in a visualization corridor.

Since 1976, Sandians and our partners have received 74 R&D 100 awards from *R&D Magazine* for significant technical developments.

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