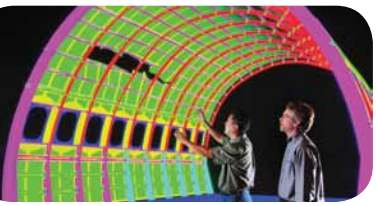
Sandia National Laboratories



Sandia grew out of America's World War II effort to develop the first atomic bombs. Today, keeping the U.S. nuclear stockpile safe, secure and effective is a major part of Sandia's work as a multidisciplinary national security, engineering laboratory. But Sandia's role has evolved to address the additional complex threats facing our country. Sandia carries out research and development in:

Nuclear Weapons – Supporting U.S. deterrence policy by helping sustain, modernize and secure the nuclear arsenal.

Defense Systems & Assessments – Supplying new capabilities to U.S. defense and national security communities.

Energy, Climate & Infrastructure Security – Ensuring the stable supply of energy and resources, and protection of infrastructure.

International, Homeland & Nuclear Security – Focusing on the protection of nuclear assets and nuclear materials, and addressing nuclear emergency response and nonproliferation worldwide.

Sandia's science, technology and engineering foundations enable our unique mission. The laboratory's highly specialized research staff is at the forefront of innovation, collaborating with universities and companies and performing multidisciplinary science and engineering research programs with significant impact on U.S. security.

Sandia National Laboratories

Exceptional service in the national interest

People

Sandia's staff of more than 9,600 regular employees includes 5,230 who hold advanced degrees.

Sandia people work at the laboratories' headquarters in Albuquerque, New Mexico; at a second lab in Livermore, California; and at other sites in the U.S. and abroad, including Carlsbad, New Mexico; Las Vegas and Tonopah, Nevada; Amarillo, Texas; and Kauai, Hawaii.

Budget

Sandia's operating costs were approximately $2.4 billion in fiscal year 2012.

Capabilities

Meeting tomorrow's national security challenges will require readiness, excellence in engineering and rapid innovation. Sandia will help the nation solve significant problems with core capabilities in:

- Systems engineering and integration
- High-performance computing, as well as modeling and simulation
- Extreme-environment testing at unique facilities
- Nanotechnologies and microsystems

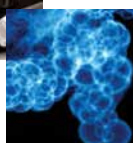
Collaboration

Sandia's customers and collaborators include many federal, state and local agencies, companies and academic institutions. Partnerships are formed through cooperative agreements, licensing, technical assistance, centers of excellence, use of unique Sandia facilities, personnel exchanges and other mutually beneficial arrangements.

Achievements

Sandia has pioneered such products as cleanrooms for microelectronics manufacturing, triggers for automobile airbags and high-resolution radars that see through clouds and darkness. Recent achievements include:

- Advanced nuclear weapons components that will improve the safety and security of the U.S. nuclear stockpile far into the 21st century
- Satellite sensors that help the nation monitor worldwide nuclear activity from space
- A device, known as the Air Bearing Heat Exchanger, or "Sandia Cooler," with the potential to dramatically alter the electronics chip-cooling landscape in computing
- A cost-effective robotic hand that can be widely distributed to troops to disarm improvised explosive devices
- Microsystems-enabled photovoltaics, known as solar glitter, that could dramatically reduce production costs and increase the conversion efficiency of light to electricity



U.S. DEPARTMENT OF ENERGY
NNSA National Nuclear Security Administration

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