Sandia National Laboratories



Overview

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 Deterrence – Supporting U.S. deterrence policy by helping assess, secure and sustain the nuclear arsenal.

National Security Programs – Supplying new capabilities to U.S. defense and national security communities.

Global Security – Developing systems to monitor emerging threats, protecting nuclear assets and materials, and addressing nuclear emergency response and nonproliferation worldwide.

Energy & Homeland Security – Secures the nation's critical infrastructures and environment against attacks, threats and climate change by performing world-class research and development.

Advanced Science & Technology – Performing fundamental science to promote national security, economic competitiveness and improved quality of life.

Sandia's science, technology and engineering foundations enable our unique mission. The Laboratories' 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.

People

The Labs' staff of about **16,900** includes about **7,623** with advanced degrees.

Exceptional service in the national interest

www.sandia.gov

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

Budget

Sandia's operating costs were \$5.1 billion in fiscal year 2024.

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
- Advanced computing, quantum engineering, 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:



- Major NNSA nuclear weapons programs executed on time and on budget
- 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
- New technology that dramatically improves the endurance of legged robots to aid in disaster response



