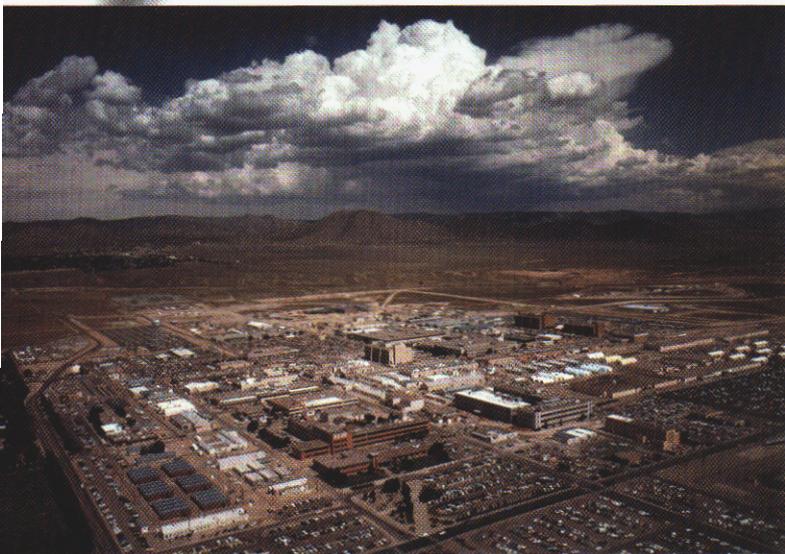


Sandia National Laboratories

Fact Sheet



Sandia National Laboratories was established during the Manhattan Project, which produced the first nuclear weapons, and began operating as an independent laboratory in 1949. Sandia is managed by Lockheed Martin Corp. for the U.S. Department of Energy.

Sandia's enduring mission is to provide science and engineering support for the nuclear weapons stockpile. This mission comprises other aspects of national security, including:

- Preventing the spread of nuclear, chemical, and biological weapons,
- Developing technologies and strategies to counter threats such as terrorism,
- Preventing disruption to our critical infrastructures—including transportation, financial, communication, and energy systems, and
- Collaborating with industry, universities, and other government agencies to commercialize new technologies.

A Premier Engineering Laboratory

Sandia researches, designs, and develops 90 percent of some 6,000 nuclear weapon components. These components include security systems, arming and fusing mechanisms,

safety systems, instrumentation, parachute systems, and aerodynamic design. In meeting this responsibility, Sandia has developed into a premier research and development laboratory with unparalleled expertise in systems engineering.

Sandia has acquired expertise in the design and manufacture of microelectronic devices and semiconductors as a result of developing smaller, lighter, and more reliable command and control systems that improve the security, efficiency, and aerodynamic design of weapons systems. The need to make weapons systems impervious to radiation, called radiation hardening, has made Sandia the laboratory of choice for protecting sensitive electronic devices in satellites and planetary probes that encounter potentially damaging natural radiation in space.

Sandia's unique testing facilities and high-performance computer simulation capabilities allow developers to evaluate product design before making a prototype. Simulations run with high-performance computing also are vital to ensuring the nuclear weapons stockpile remains safe, secure, and reliable as the weapons age.

The Labs' nuclear weapons experience plays a role in preserving world peace and public safety. Sandia experts help the United Nations and the International Atomic Energy Agency investigate clandestine weapons programs. Our scientists and engineers work with the former Soviet Union to protect nuclear materials and provide accountability. Also, our sensors in satellites and ground systems detect seismic activity and radioactive materials associated with nuclear testing worldwide.

Sandia also has been at the forefront of developing renewable energy technologies in the areas of photovoltaics, solar thermal, wind, and geothermal.

Technology Partnerships

Many technologies developed at Sandia benefit Americans. The laminar-flow cleanroom—used worldwide for microelectronics and pharmaceutical manufacturing and hospital surgery—was invented at Sandia in 1960.

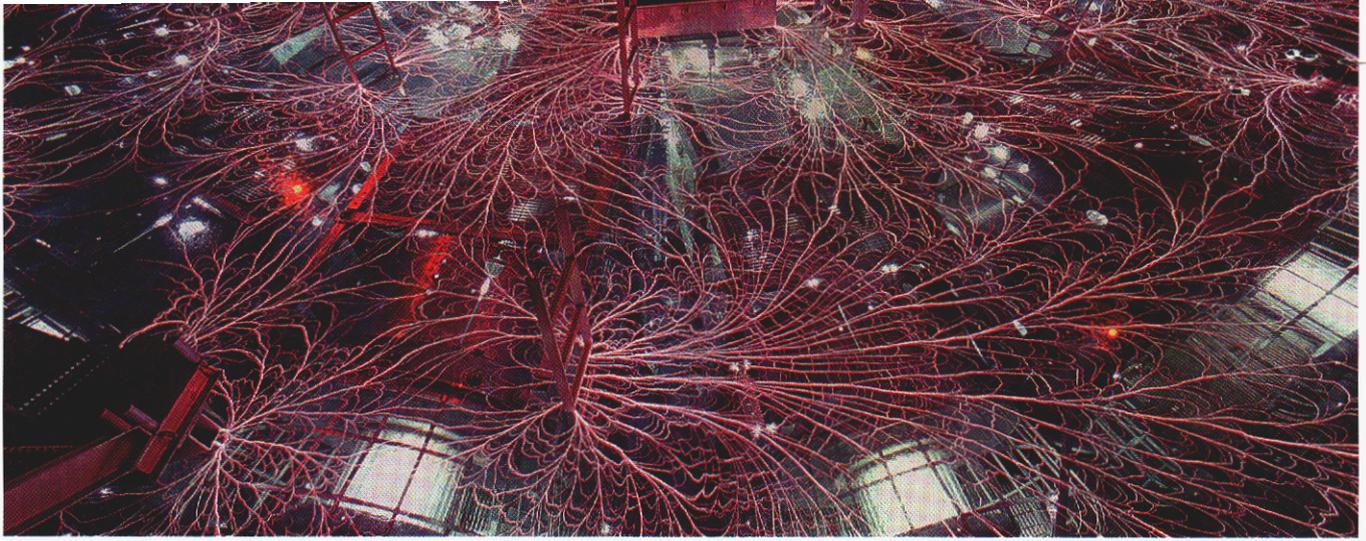


NNSA
National Nuclear Security Administration

Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000. CA. 53312 MV.02 SAND No. 2002-2332P



**Sandia
National
Laboratories**



Better automobile safety airbags resulted from our work on fabrics for weapons parachutes. Sandia-designed airbags enabled NASA's Pathfinder to land safely on Mars.

Sandia works closely with industry, universities, and other government agencies to bring new technologies to the marketplace. The Labs may negotiate with industry to sign cooperative research and development agreements that permit collaboration with industry on mutually beneficial research. Other options include licensing agreements, technical assistance, use of unique Sandia facilities, technical personnel exchanges, and memoranda of understanding for pursuing shared interests.

Our People

Sandia has about 7,700 permanent employees, located mainly in Albuquerque, N.M., and Livermore, Calif. Sandians also work at the Pantex Plant near Amarillo, Texas; the Waste Isolation Pilot Plant near Carlsbad, N.M.; the Kauai Test Facility in Hawaii; and the Tonopah Test Range in

Nevada. Our work force consists of highly educated and skilled engineers, scientists, technologists, and administrative support staff. Of our employees, about 1,400 hold doctoral degrees and more than 2,100 hold Master's degrees. New Mexico—where about 6,500 Sandians work—is home to the highest percentage of Ph.D. scientists and engineers of any state in the nation.

Sandians each year are recognized for a variety of breakthrough technologies, often having commercial applications. Additionally, many Sandians each year receive peer awards from national professional organizations.



Sandia accounts for \$4.4 billion (almost 4.8 percent) of the economic activity in New Mexico, and creates or supports nearly 30,000 jobs—about 3.5 percent of the state's total employment.



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