SAND2010-8316P

Sandia California Laboratory Overview

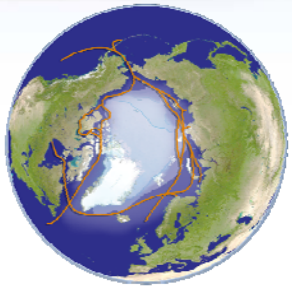
For: Name

By: Name
California Laboratory

Date: Date

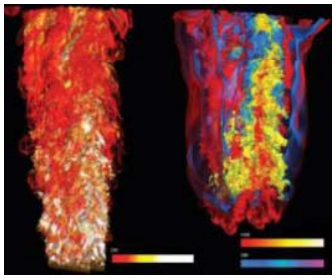
Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

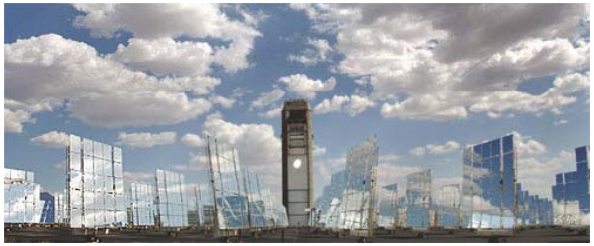
Sandia is a science-based engineering research and development laboratory



Energy, Climate & Infrastructure Security

Nuclear Weapons





International, Homeland & Nuclear Security

Defense, Systems & Assessments

Sandia National Laboratories

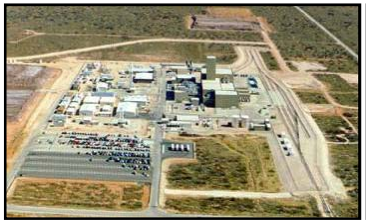
Mission driven – Multi site

Albuquerque

> 10,600 people total
~ 1180 in California
~ 1650 w/ Ph.D. (lab-wide)
~ $2.5B budget

Livermore

Yucca Mountain, Nevada



WIPP, New Mexico

Kauai Test Facility, Hawaii

Pantex, Texas

Tonopah Test Range, Nevada

Division 8000 – California Laboratory workforce (1180)

Career Workforce (~900)

- Tech staff (480), mostly PhD and MS
- Tech staff w/ PhD – 48%
- (lab average is 31%)

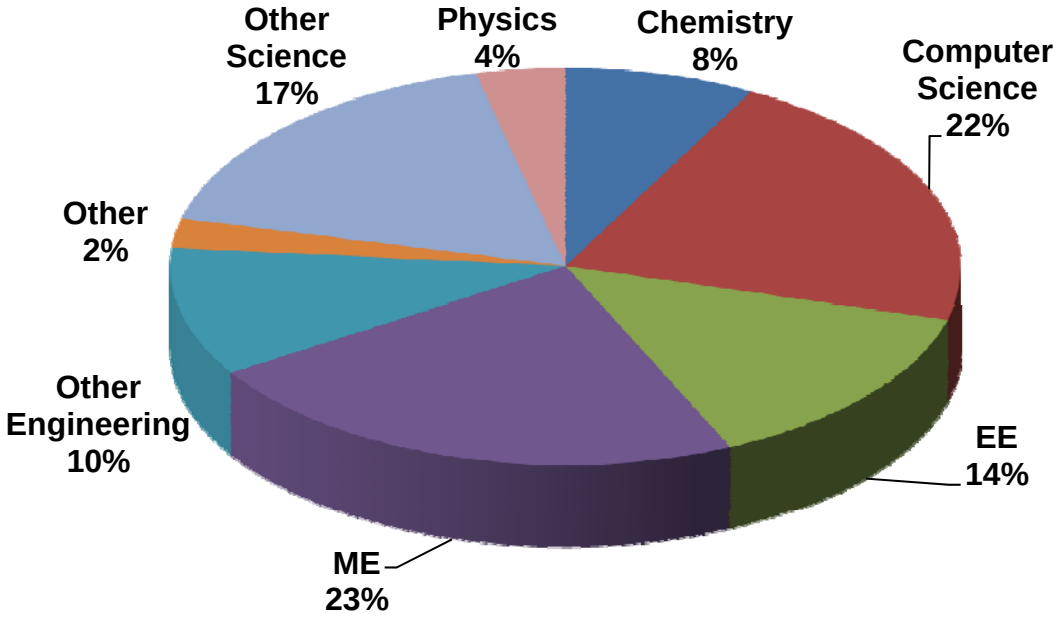
Includes 61 highly talented international workers

Temporary Employees (~150)

- LTEs/other – 25
- Students – 29
- Post-Docs – 94

Contractors (~120)

WF Counts as of 11-22-10



Technical Staff job disciplines

Graphalyzer Effective 02-23-10

Sandia corporate history

"Exceptional service in the national interest"

THE WHITE HOUSE
WASHINGTON

May 13, 1949

Dear Mr. Wilson:

I am informed that the Atomic Energy Commission intends to ask that the Bell Telephone Laboratories accept under contract the direction of the Sandia Laboratory at Albuquerque, New Mexico.

This operation, which is a vital segment of the atomic weapons program, is of extreme importance and urgency in the national defense, and should have the best possible technical direction.

I hope that after you have heard more in detail from the Atomic Energy Commission, your organization will find it possible to undertake this task. In my opinion you have here an opportunity to render an exceptional service in the national interest.

I am writing a similar note direct to Dr. C. E. Buckley.

Very sincerely yours,

Harry Truman

Mr. Leroy A. Wilson,
President,
American Telephone and Telegraph Company,
195 Broadway,
New York 7, N. Y.

California Laboratory History

1956

California Laboratory opens, singular NW mission

1960s

Gas Transfer

Polaris - W47

Poseidon - W68

Strong NW mission, Energy crisis

1970s

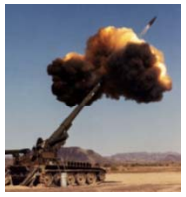
Lance - W70

Combustion Research

Solar Tower

Strong NW mission, "Star wars"

1980s



AFAP – W79

B83

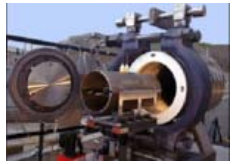
Minuteman III - W87

"Tech Transfer", Stockpile stewardship

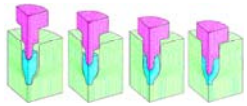
1990s

SEMATECH

Extreme Ultraviolet Lithography



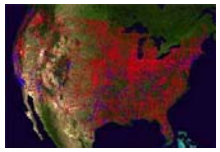
Demil



Stockpile Stewardship

Broader national security

2000s



Homeland Security

μ - Chemlab

W80 LEP

Open campus

2010s

JBEI
JOINT BIOENERGY INSTITUTE

LVOC

B61

Minuteman III – W78

Sandia National Laboratories

Program Structure

Paul Hommert
Laboratories Director

Jerry McDowell
Deputy Lab Director and EVP
for **National Security Programs**

Al Romig
Deputy Lab Director and EVP
for **Mission Support**

Nuclear Weapons

One Strategic Management Unit

• ***Nuclear Weapons***

Steve Rottler
Weapon Science &
Technology

Rick Stulen
CA Laboratory

Mike Hazen
Defense Security

Carolyne Hart
Stockpile and Weapon
Product Realization

National Security Programs

Three Strategic Management Units

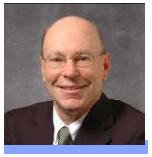
Defense Systems and Assessments

Mike Vahle
Vice President
(acting)

International, Homeland & Nuclear Security

Jill Hruby
Vice President

Energy, Climate & Infrastructure Security



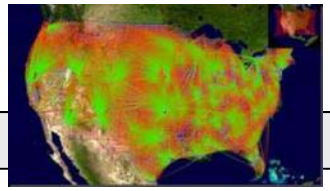
Rick Stulen
Vice President

Mission Support

- HR & Communication
- Legal
- IT/CG
- Finance & Business Operations
- INFRAOPS

Sandia National Laboratories

Directors have Center (Line) and Strategic Management Unit (Business) responsibilities



Homeland Security & Defense Systems
Peter Davies - 8100

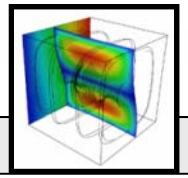
Systems engineering and systems analysis solutions for emerging national security challenges

CA Nuclear Weapon Systems Engineering
Jim Handrock - 8200

Stockpile development, surety, gas transfer systems, reliability, and engineering services

Transportation Energy
Bob Carling - 8300

Combustion technologies, reacting flow research, hydrogen technologies for transportation

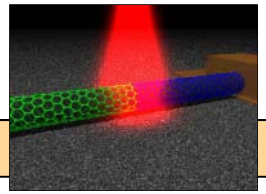


Computer Science & Information Systems
Len Napolitano - 8900

Cyber security, high performance computing and visualization, scalable software, and information systems and services

Site Operations
Pat Smith - 8500

Human resources, business operations, ES&H, facility operations, security



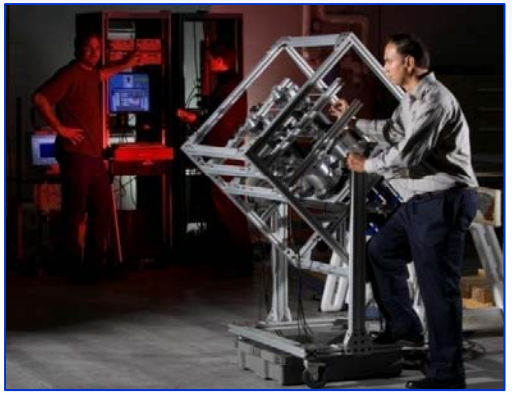
Biological and Materials Science
Glenn Kubiak - 8600

Molecular and computational biosciences, engineered materials, materials physics, micro/nanosciences

Sandia California Division distinguishing capabilities

Applied Biosciences Lab (ABL)

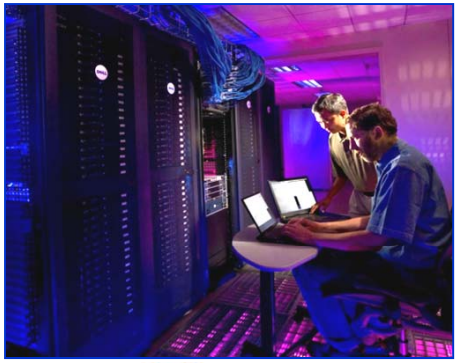
Micro & Nano Technologies Lab (MANTL)



Distributed Information Systems Lab (DISL)

Combustion Research Facility (CRF)

Nuclear Weapons

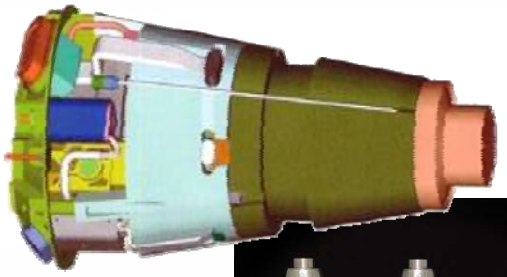


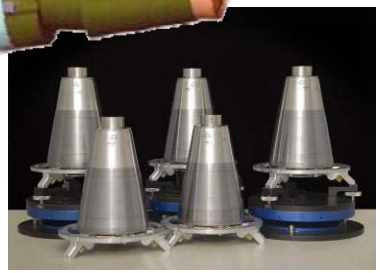
Sandia National Laboratories

Strategic Management Unit:

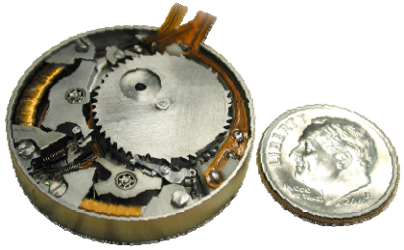
Nuclear Weapons

Integrated, Engineered Warhead Systems



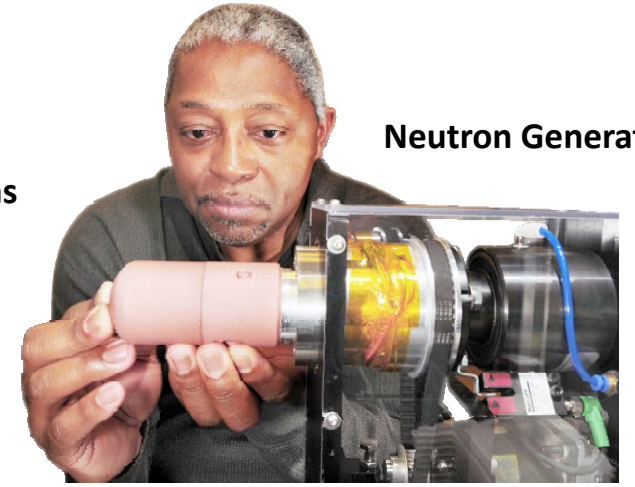


Arming, Fuzing, and Firing Systems



Safety Systems and Security Systems

Gas Transfer Systems

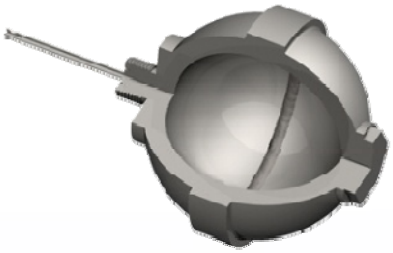


Neutron Generators

Sandia's core products for nuclear weapons stockpile management

Nuclear Weapons

We assure the safety, security, and reliability of the Nation's nuclear assets.



Sandia uses a “two site / one Lab” model to partner with LANL and LLNL







CALIFORNIA REPUBLIC

W80 B83 W87

B61 W76 W78 W88

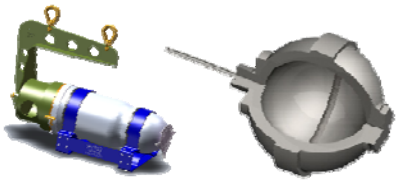
Lawrence Livermore National Laboratory

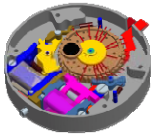
Sandia National Laboratories

Sandia National Laboratories

Los Alamos NATIONAL LABORATORY

Use Denial	JTA Telemetry	Handling Gear	Gas Transfer Systems	Arming, Fuzing & Firing	Neutron Generators	Coded Control	Stronglinks

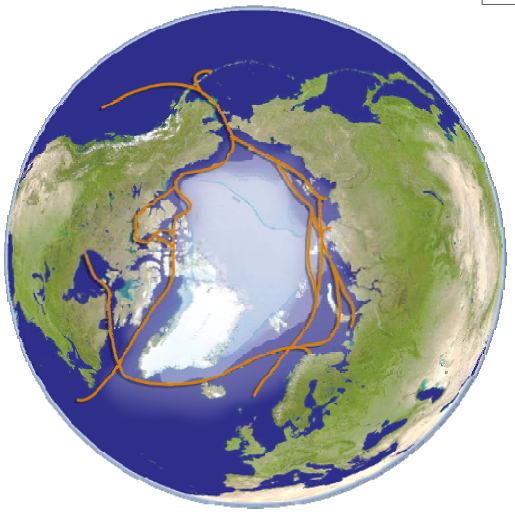



Strategic Management Unit:

Energy, Climate, and Infrastructure Security

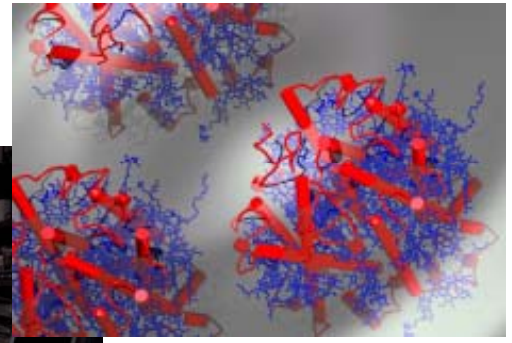
Energy

Infrastructure



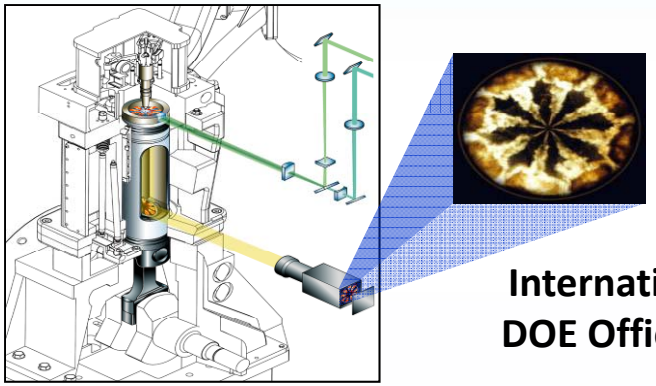
Climate

Enabling Capabilities



Sandia National Laboratories

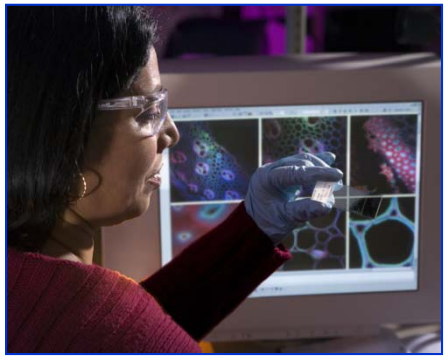
Sandia/CA focuses its energy-related R&D on transportation: fuels, engines, systems

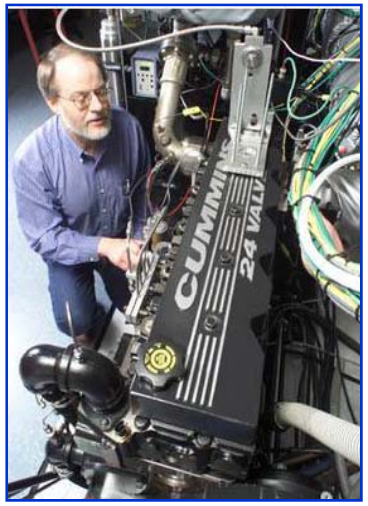


Combustion Research Facility

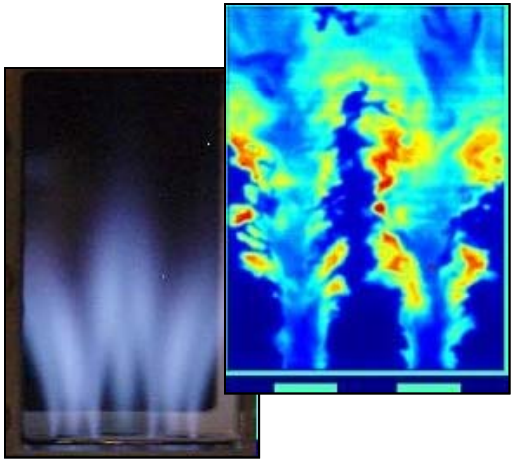
Internationally renowned DOE Office of Science user facility

Biofuels & Joint BioEnergy Institute



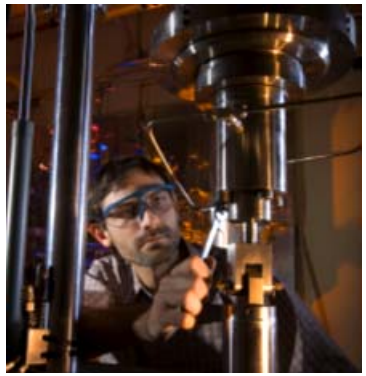


Emerging engine technologies



Simultaneously optimizing efficiency of fuels and engines

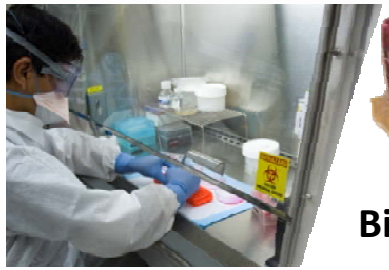
Hydrogen Programs



Sandia National Laboratories

Strategic Management Unit:

International, Homeland, and Nuclear Security



Bio/Chemical Security

Border Security

Maritime Security

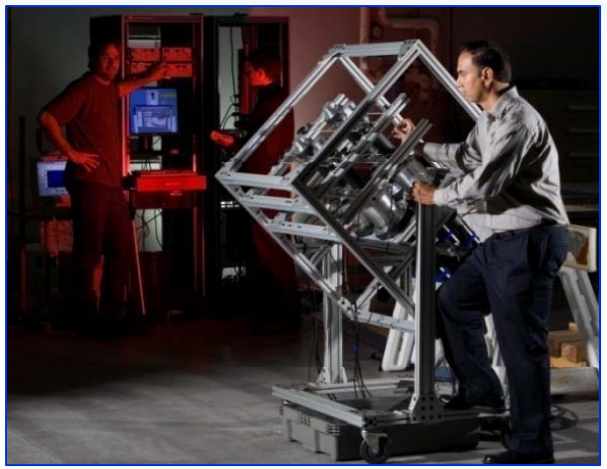
Emergency Response

Weapons Remediation

Physical Security

Nuclear/Radiological Threat Reduction

Broader national security programs at the California Laboratory



Radiation & Nuclear Material Detection

Chemical & Biological Detection

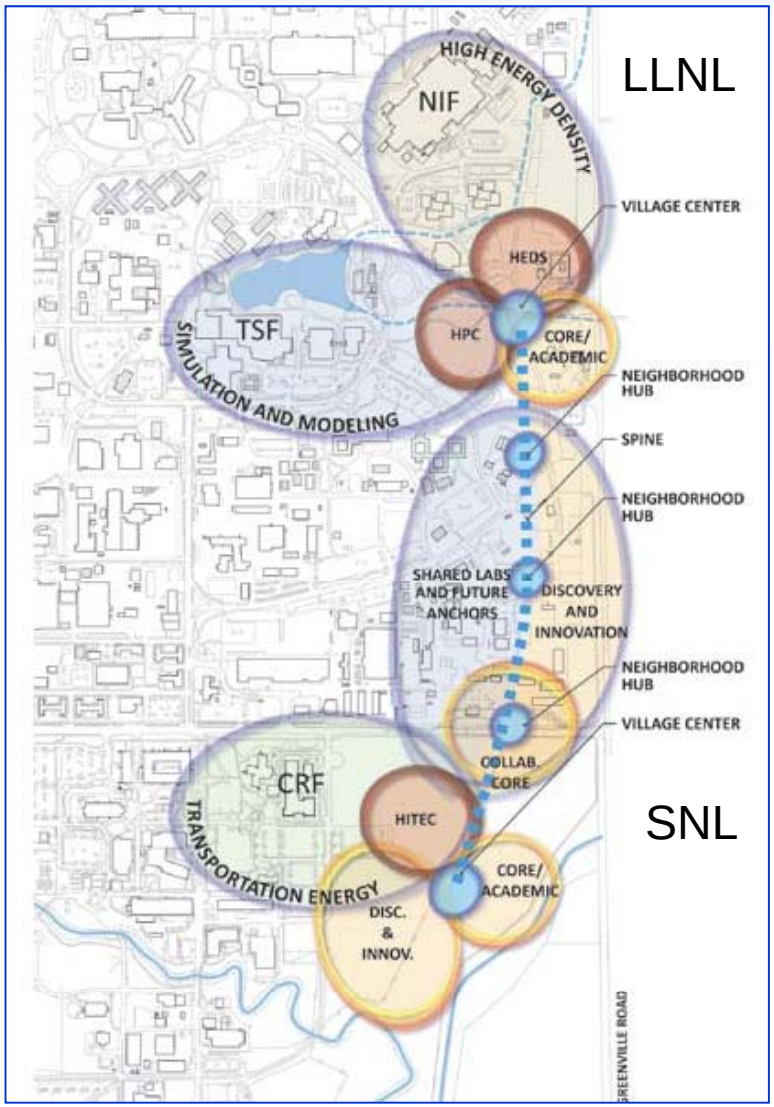
Broad contributions to biodefense, nonproliferation, and cyber security.

Cybersecurity

Chem/Bio Detection Systems & Decision Support

Sandia National Laboratories

The Livermore Valley Open Campus – a new way of doing business for national security



Sandia National Laboratories

Sandia National Laboratories

END

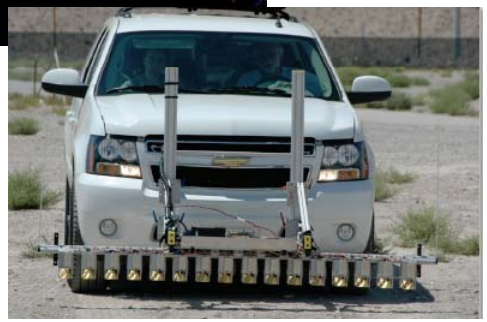
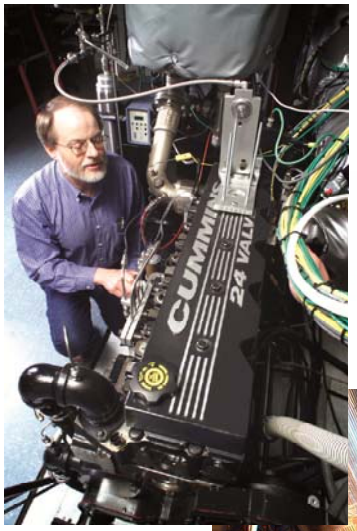
Vision for an open campus area is driven by several key strategic outcomes

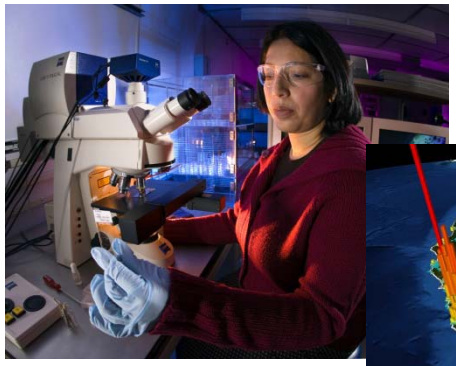
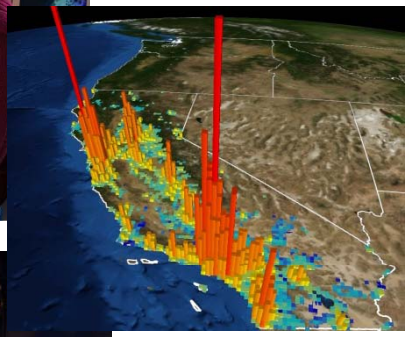
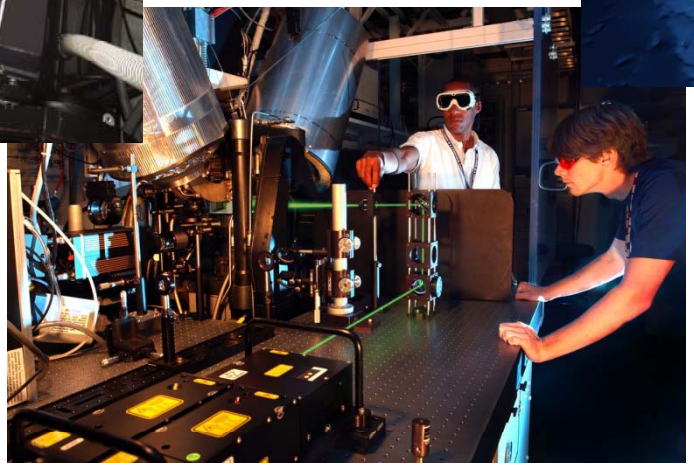
New Missions

Strong Science, Technology & Engineering

Workforce Attraction



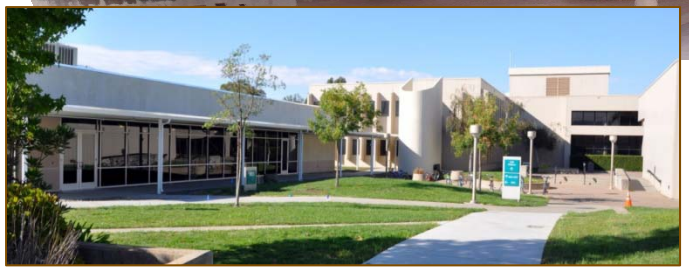




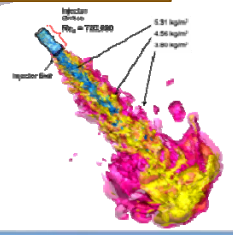
Maintain the Labs as the Employer of Choice in the 21st Century

Sandia National Laboratories

Transportation Energy

Combustion Research Facility, an Office of Science user-facility



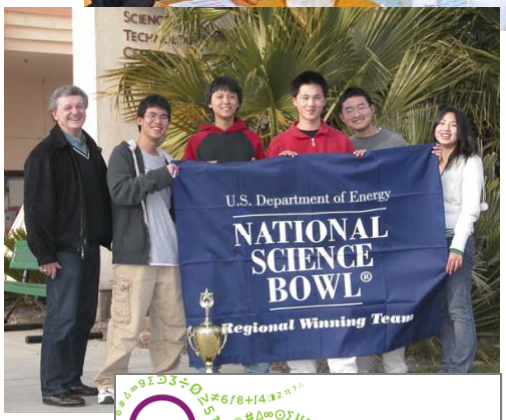


Sandians participate in their communities

Science Outreach

Charitable Giving

Civic Engagement



expanding your horizons network
motivating young women in science + mathematics

LIVERMORE CHAMBER OF COMMERCE
Celebrate Enterprise

tvbc Tri-Valley Business Council

Tri-Valley Conservancy

Sandia National Laboratories

Sandia/CA's location and facilities provide strategic advantages to the state and the nation

- Northern CA location fosters close and dynamic partnerships
  - Integrated defense programs with LLNL
  - S&T collaborations with local universities (Stanford, UCB, UCD, UCSF)
  - Other federal laboratories (LBNL, SLAC, NASA)
  - Partnerships with Bay Area high-tech companies
- State-of-the-art laboratories attract top talent from the U.S. and internationally