

SANDIA NATIONAL LABORATORIES LAB OVERVIEW

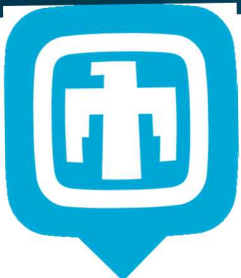


PRESENTED BY

Andy McIlroy
Associate Labs Director | California Laboratory

Livermore Lab Retirees Association Luncheon
Tuesday, March 10, 2020

SANDIA AT A GLANCE | LARGEST OF THE NATIONAL LABORATORIES



Livermore, California



FY19
Budget
\$3.8B

FY20
Projected Budget
\$3.77B

Allocated to nuclear deterrence

57%

FY20 Total Employees

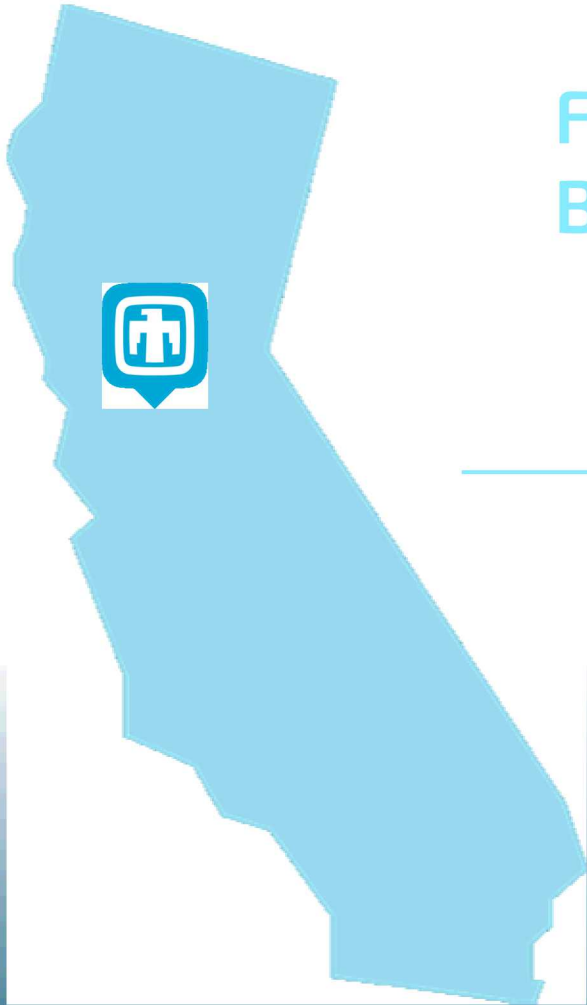
14,089

Technical staff

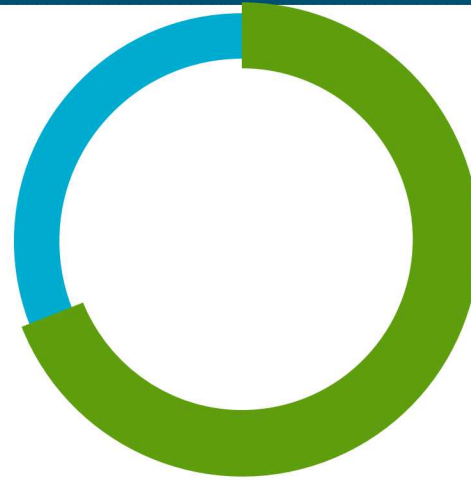
51%

At Sandia less than 5 years

44%



FY19 Total Budget



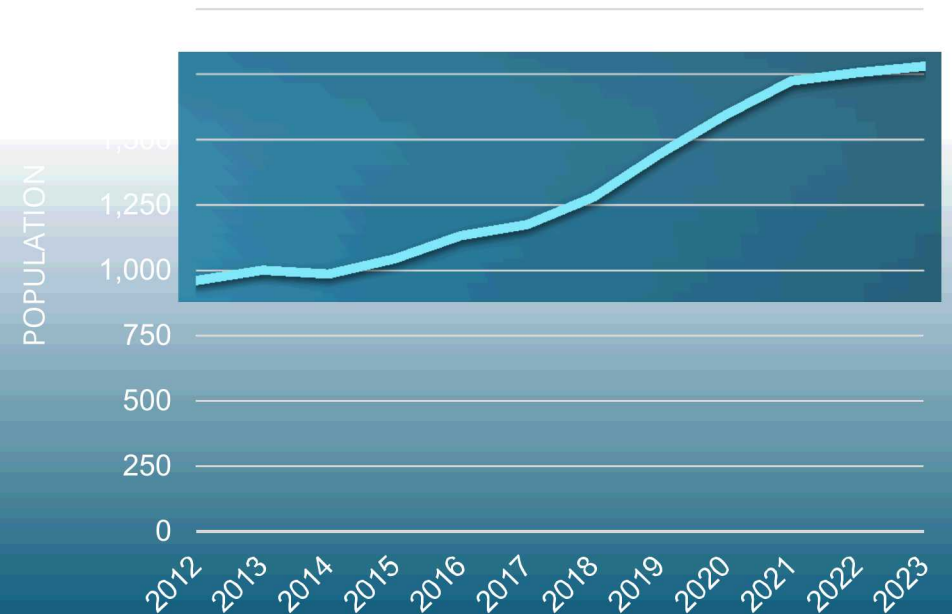
Sandia/California Employees



Sandia/California Site Population Growth*

Enhanced mission growth drives unprecedented growth at Sandia/California

* Does not include contractors, visitors, or interns



THE LEADERSHIP TEAM BRINGS EXPERIENCE AND EXPERTISE



MISSION DELIVERY

ADVANCED SCIENCE & TECHNOLOGY
DR. SUSAN SEESTROM



GLOBAL SECURITY
DOUG BRUDER



INTEGRATED SECURITY SOLUTIONS
DR. ANDY MCILROY



NATIONAL SECURITY PROGRAMS
MIKE BURNS



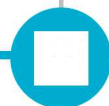
NUCLEAR DETERRENCE
DR. STEVE GIRRENS



Board of Managers



Independent Audit



DR. JAMES S. PEERY



DORI ELLIS
DEPUTY
LABS DIRECTOR



GENERAL COUNSEL
WILL ELIAS



HR & COMMUNICATIONS
JOHN MYERS



INFRASTRUCTURE OPERATIONS
JOEL LASH (ACTING)



MISSION ASSURANCE
MARK SELLERS



MISSION SERVICES
SCOTT AEILTS

MISSION ENABLING

DIVISION 8000 | LEADERSHIP TEAM



Sarah Allendorf
Acting Director

Chemistry, Combustion,
& Materials Science
+ ND, AS&T PROGRAMS



Carol Adkins
Director

Energy & Earth Systems
+ ND, AS&T, GS PROGRAMS
**CROSS DIVISION INITIATIVES*



Anup Singh
Director

CBRN Defense
& Energy Technologies
+ AS&T, GS PROGRAMS
**CROSS DIVISION INITIATIVES*



Richard Griffith
Acting Director

Homeland Security
& Defense Systems
+ ND, AS&T, GS PROGRAMS
**CROSS DIVISION INITIATIVES*

5 E/HS PORTFOLIO PROGRAMS



**DIVISION
8000**

Dr. Andy McIlroy
Associate Labs Director
Integrated Security Solutions



Marcey Hoover
Director, Deputy ALD

E/HS Portfolio Programs,
Nuclear Deterrence Program Mgmt.
& California Business Operations



Pam McKeever
Director

California Site Operations

OPERATIONS



Mike Hardwick
Director

California Weapon
Systems Engineering



Jennifer Clark
Acting Director

California Weapon
Components Engineering



Tedd Rowher
Director

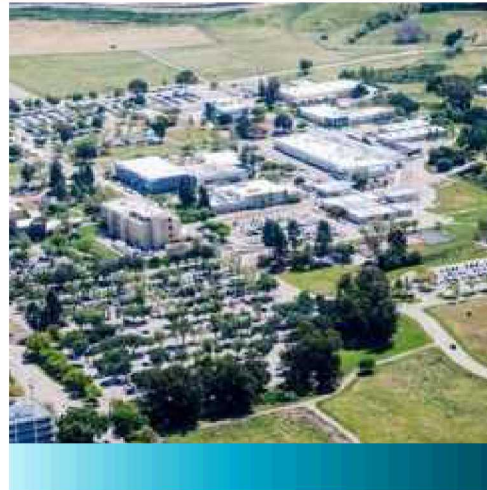
W80-4 Special Assignment

NUCLEAR DETERRENCE



CA WEAPONS

programs, Livermore stockpile, advanced and exploratory systems, nuclear deterrence capabilities



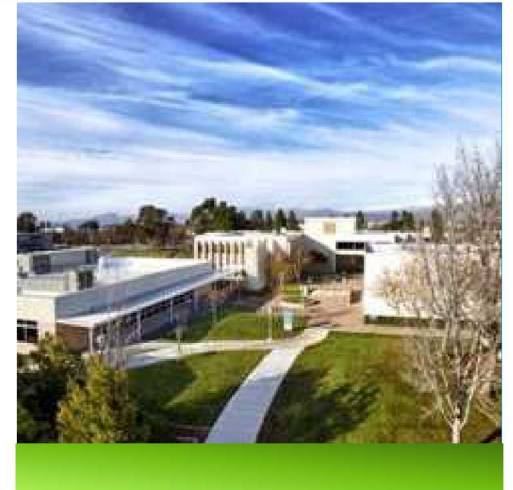
DIVISION

and stewardship of the California site



E/HS PORTFOLIO

of the Department of Energy (DOE) and Department of Homeland Security (DHS)



RESEARCH FOUNDATIONS

Science Research Foundations and stewardship for the Joint Bioenergy Institute (JBEI) and the Combustion Research Facility (CRF)



SANDIA HAS A CLOSE PARTNERSHIP WITH LLNL

Collaboration across programs and operations is foundational for the nation's security



PARTNERSHIP IS CRITICAL TO SUCCESS OF THE W80-4 LIFE EXTENSION PROGRAM



Communication occurs frequently and consistently across all stakeholders, management, and technical and programmatic staff

Engineering

• Release of Interface Document Issue A
• Successful joint test testing

Program Management

- Cooperative earned value and schedule management
- Improved risk management





ESTABLISHING STRONG PARTNERSHIPS EARLY IN THE PROGRAM IS A PRIORITY FOR THE W87-1

Sandia, LLNL, and Kansas City National Security Campus held a joint kickoff in March 2019

Systems Engineering

- Customer Requirements Review for Department of Defense customer
- Ground-based strategic deterrent interface documents

Program Management

- Integrated approach to scheduling and Weapon Design and Cost Report





LLNL BIOSAFETY LEVEL 3 (BSL-3) FACILITIES SUPPORT COLLABORATIVE BIODEFENSE PROJECTS

Fighting Encephalitic Alphavirus Infections

- Nanoparticle technology for delivering antivirals
- Blood-brain-barrier penetrating antibody therapeutics

Host-Directed Antibacterial Therapy

- Respiratory *Burkholderia pseudomallei* infection

COVID-19 Pandemic Medical Countermeasures Proposal

- Using artificial intelligence to accelerate therapeutic antibodies and CRISPR-based antivirals that target a coronavirus receptor

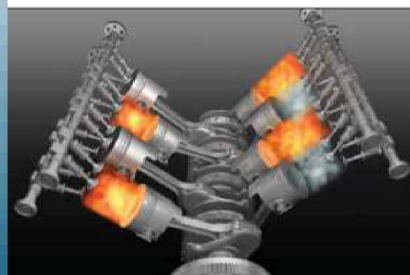




CO-OPTIMIZATION OF FUELS AND ENGINES (CO-OPTIMA)



What fuels do engines really want?

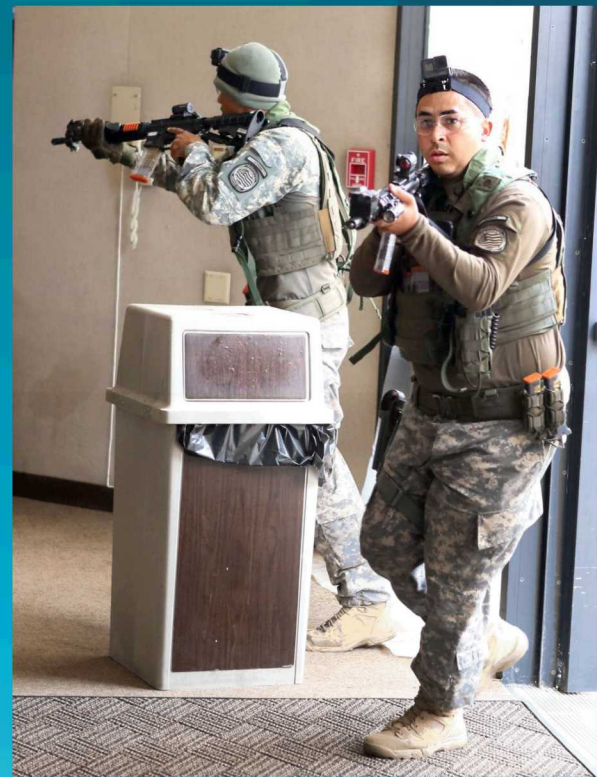


What fuels *should* we make?



What will work in the real world?





JOINT EMERGENCY OPERATIONS ARE VITAL TO SECURING BOTH SITES

Sandia and LLNL work together to ensure the safety of all employees in emergency situations

- Annual mass casualty exercises
- ProForce training
- Shared ambulance
- Local emergency response

THANK YOU
ANY QUESTIONS?

