

Exceptional service in the national interest



Sandia/California NW Overview

Russell Miller

Director, CA Weapons Systems Engineering

January 5, 2016



Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

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



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

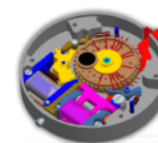
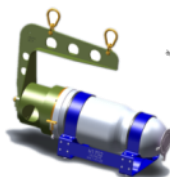
Gas
Transfer
Systems

Arming,
Fuzing &
Firing

Neutron
Generators

Coded
Control

Stronglinks



Sandia National Laboratories

Sandia California Division



*Chemical & Radiation Detection Lab
(CRDL)*



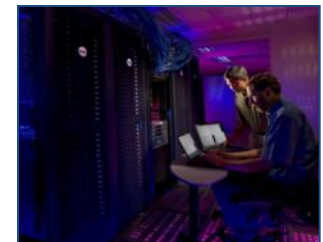
*Micro & Nano Technologies Lab
(MANTL)*



*Combustion Research Facility
(CRF)*



Nuclear Weapons



*Distributed Information Systems Lab
(DISL)*

California Laboratory leadership

CI (20)
Legal (11000)
Govt Relations (100)
Quality (400)
Recruiting (3000)

8000
Marianne Walck
**California
Laboratory
Division**



8100
Duane Lindner
**Homeland
Security &
Defense
Systems**



8200
Russ Miller
**CA Nuclear
Weapon
Systems
Engineering**



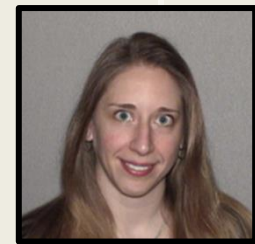
8300
Bob Hwang
**Transportation
Energy
Center**



8500
Denise Koker
**Site
Operations**
• HR
• Facilities
• ES&H



8600
Duane Lindner
(acting)
**Biological &
Engineering
Sciences**



8900
Heidi
Ammerlahn
(acting)
**Computer
Science &
Information
Systems**



Center 8200 Leadership Structure



8200 CA Weapons Systems Engineering

Russ Miller

8210 Enhanced Surety Programs

- Advanced Safety Technologies
- Advanced Use Control, Use Denial and Security Technologies
- Fundamental Science for Surety



Davina Kwon

8220 Security Systems & Reliability

- Materials Chemistry
- Reliability & Electrical Systems
- Weapons Subsystems 1
- Weapons Subsystems 2



Tim Shepodd

8230 Weapon Systems

- W87
- W80/W84
- B83
- Elect. Design & Doc. Mngmt
- Mech. Design & AM Plastic



Ming Lau

8240 Advanced Weapon Systems

- Advanced Reentry Systems
- Engineering Services
- Machine Shop
- A&E Systems/Technical Program Management



Mike Hardwick

8250 Science Enabled Engineering

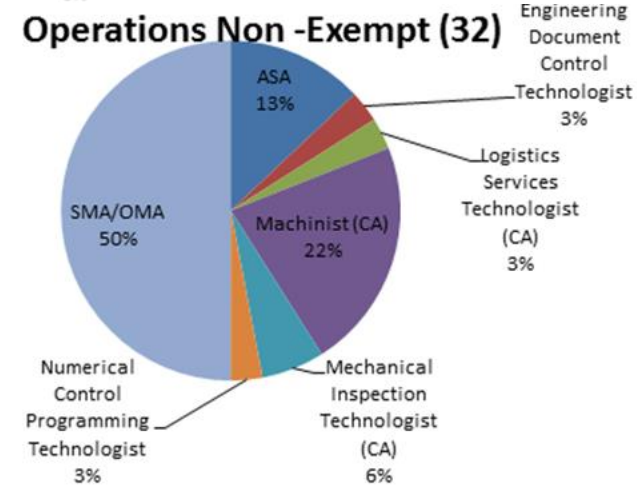
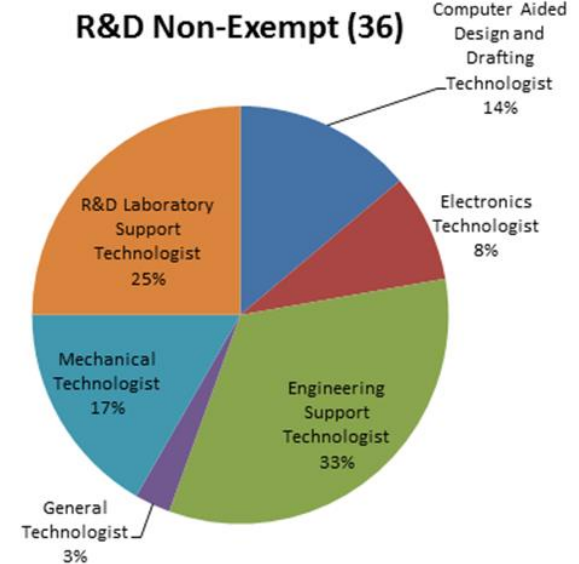
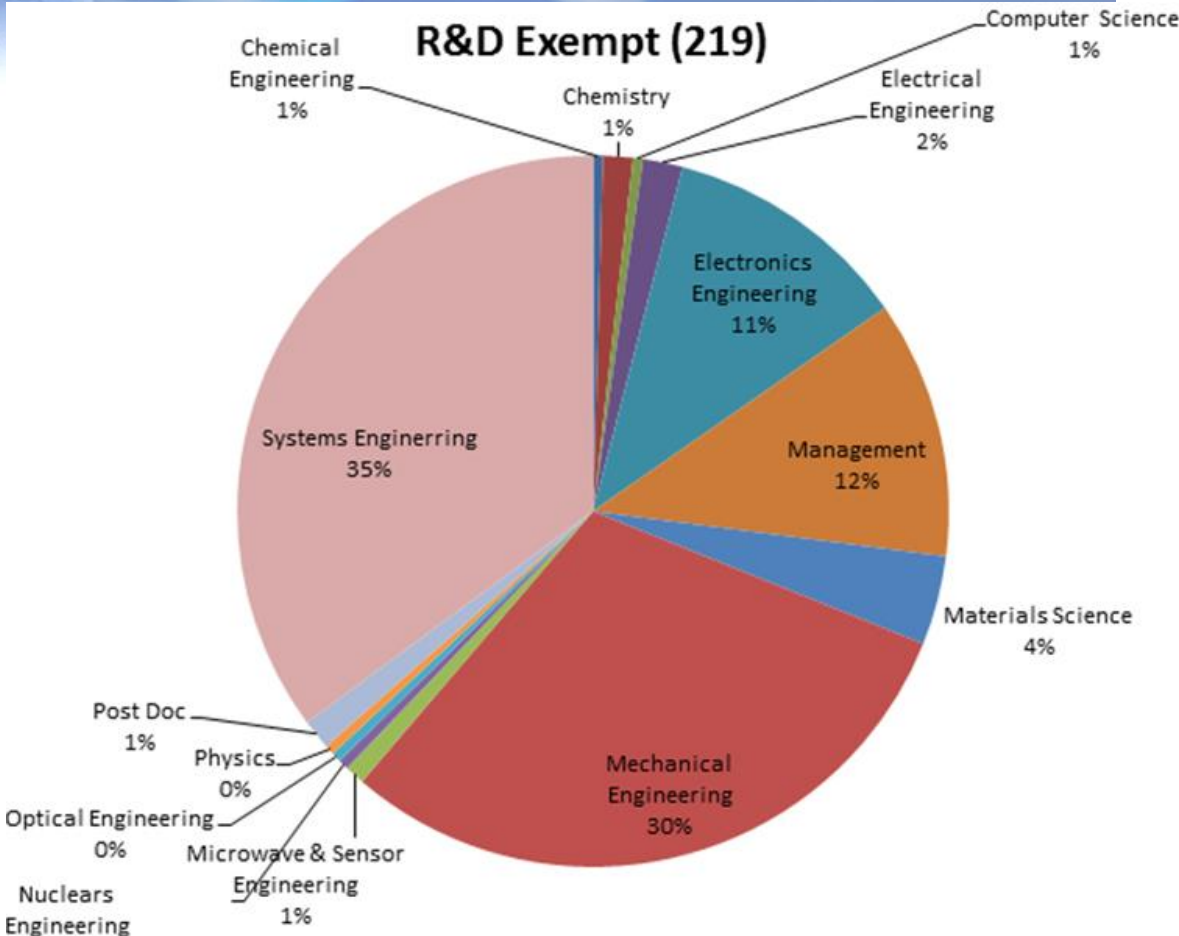
- Hydrogen & Metallurgy Science
- Gas Transfer Systems
- ASC V&V Subprogram Lead
- Multi-Physics Modeling & Simulation



Curt Nilsen

Center 8200 Demographics

■ Center 8200 population: 295



Sixty two % of Center 8200 Staff have Advanced Degrees

SNL/CA Nuclear Weapons Mission

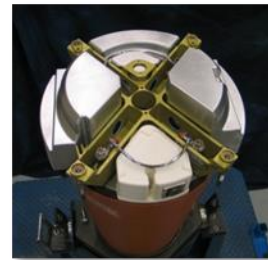
W87 Nuclear
Warhead



W80 Nuclear Warhead



Surety Systems

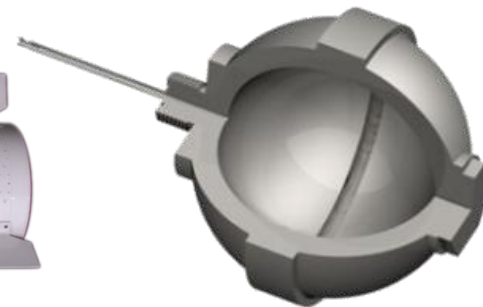


Joint Test Telemetry
Instrumentation



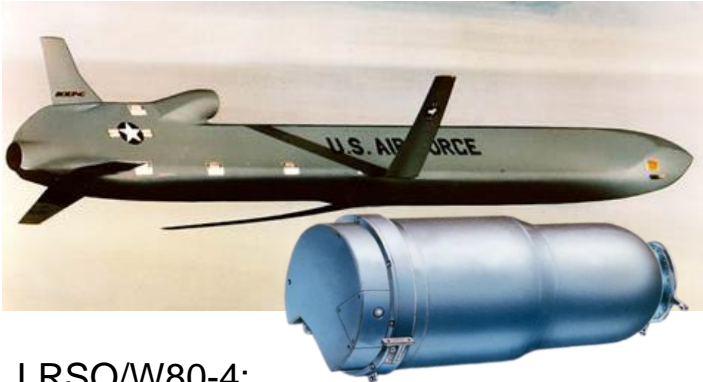
B83 Nuclear Bomb

Gas Transfer
Systems



We assure the safety, security, and reliability of the U.S. nuclear deterrent.

Advanced development opportunities to exercise our systems engineering expertise



LRSO/W80-4:
Phase 6.2 in July 2015
FPU in 2025

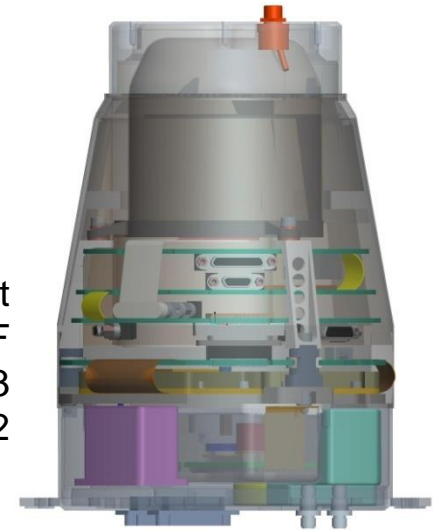


B61-12:
Subsystem
FPU in 2019

W78/88-1:
FPU in 2030



Mk21 Fuze Replacement
WFO with USAF
Phase 6.3 in Feb 2013
FPU in 2022



Summary

- Our core mission is to provide Nuclear Weapons system integration and non-nuclear component engineering expertise to support the program with our partners at both LANL and LLNL



Welcome!

