

*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



Use Denial

JTA Telemetry

Handling Gear

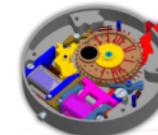
Gas Transfer Systems

Arming, Fuzing &amp; Firing

Neutron Generators

Coded Control

Stronglinks



Sandia National Laboratories

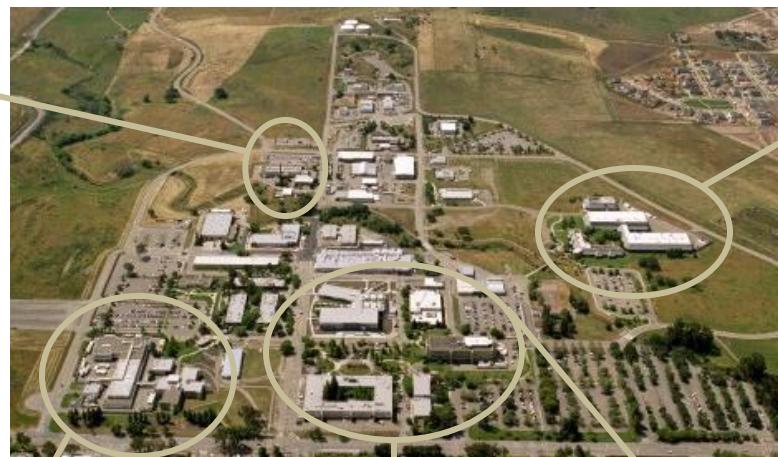
# Sandia California Division



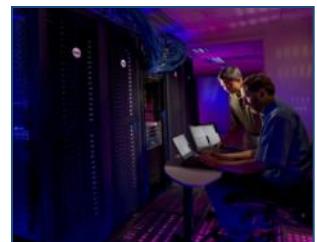
Chemical & Radiation Detection Lab  
(CRDL)



Combustion Research Facility  
(CRF)



Nuclear Weapons



Distributed Information Systems Lab  
(DISL)

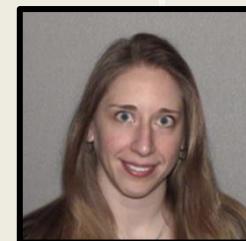


Sandia National Laboratories

# 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

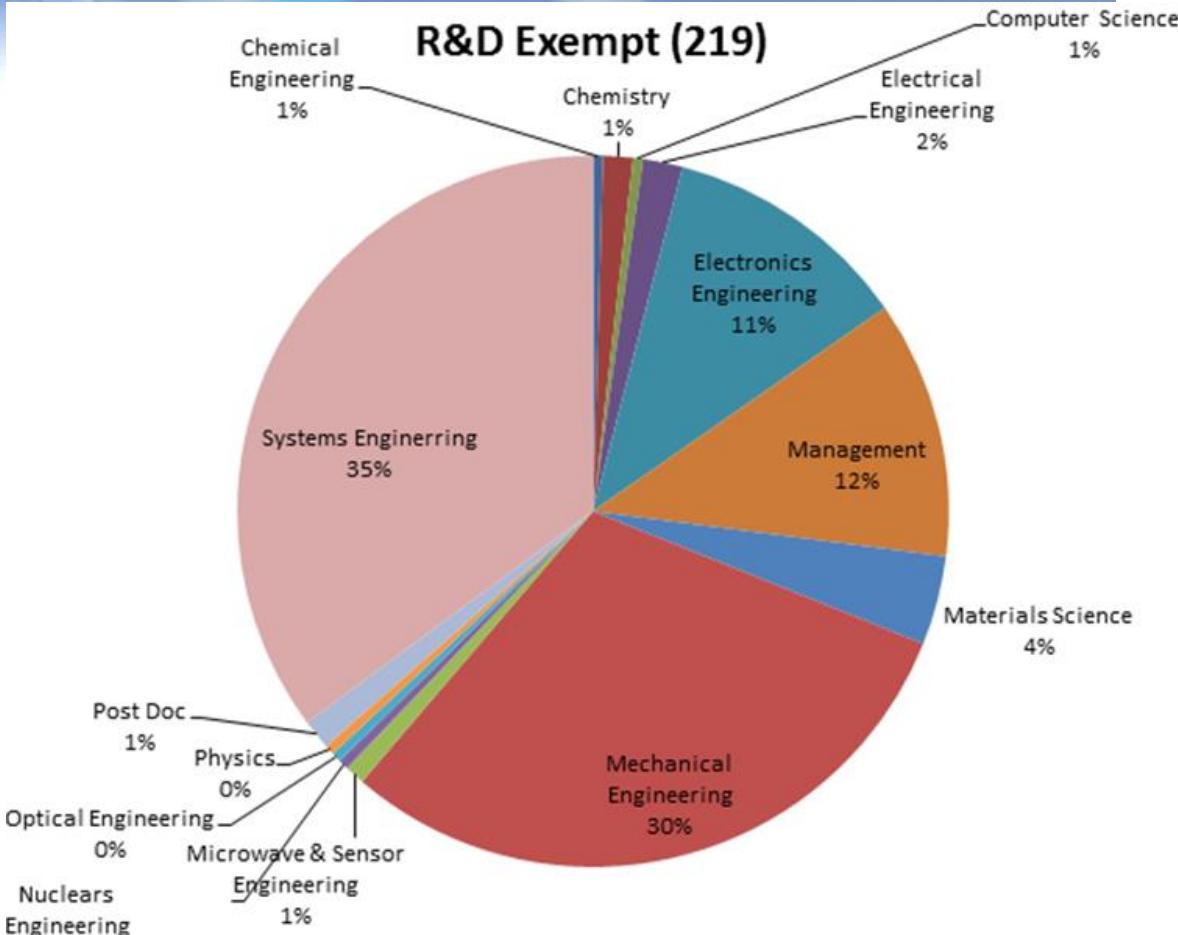
- Hydrogen & Metallurgy Science
- Gas Transfer Systems
- ASC V&V Subprogram Lead
- Multi-Physics Modeling & Simulation



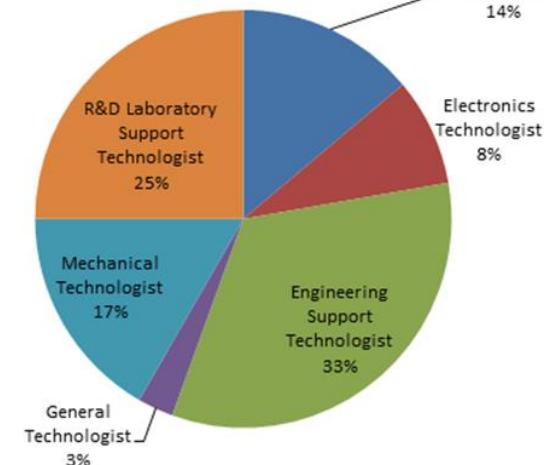
*Curt Nilsen*

# Center 8200 Demographics

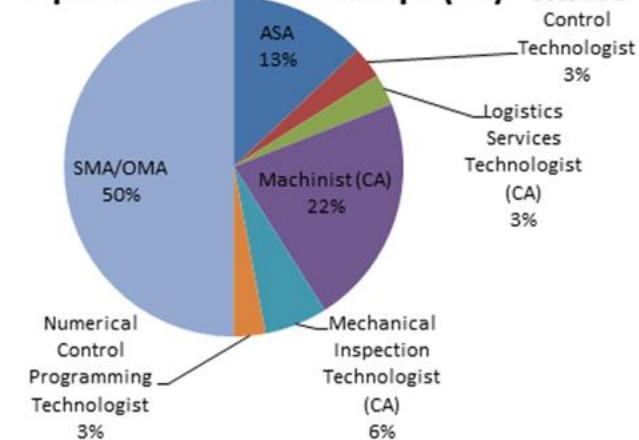
- Center 8200 population: 295



**R&D Non-Exempt (36)**



**Operations Non -Exempt (32)**



**Sixty two % of Center 8200 Staff have Advanced Degrees**



# SNL/CA Nuclear Weapons Mission

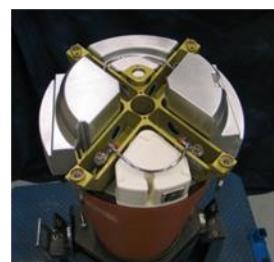
W87 Nuclear Warhead



W80 Nuclear Warhead



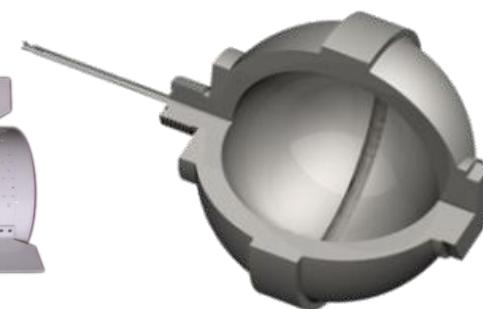
Surety Systems



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

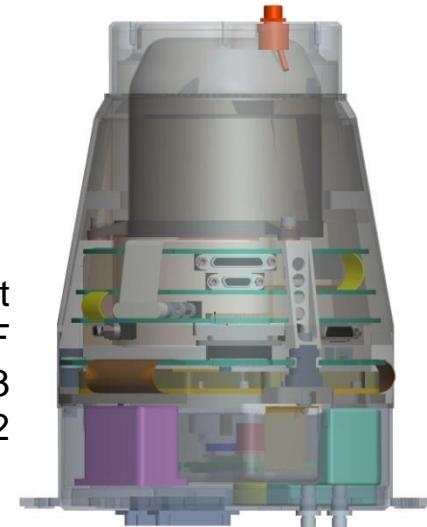


B61-12:  
Subsystem  
FPU in 2019



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!

