

*Exceptional service in the national interest*



## International, Homeland, and Nuclear Security Program Management Unit

*Protecting the nation and the world from the most dangerous events*



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. SAND2014-3266C  
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# Mission and Vision

## *Mission*

- Advancing WMD nonproliferation
  - Supporting the development and implementation of arms control treaties and objectives;
  - Securing and safeguarding WMD materials and facilities;
- Enhancing security of nuclear weapons globally
- Countering, responding to, and recovering from WMD use by terrorists or others;
- Ensuring the resilience of critical U.S. physical and cyber infrastructures; and
- Reducing the risk to our nation from significant national incidents while maintaining and facilitating trade, travel, and personal freedoms.



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## *Vision*

Lead the nation in anticipating and reducing the highest-priority risks associated with weapons of mass destruction and catastrophic incidents.

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# Sponsors and Partners



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 **Los Alamos**  
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# IHNS Program Management Unit Directors

**Global Security**  
*Rodney Wilson*



**WMD Counterterrorism  
and Response**  
*Billy Marshall*



**Homeland  
Security  
Programs**  
*Duane Lindner*



**Cyber and  
Infrastructure Security**  
*Len Napolitano*



**Homeland Defense  
and Force Protection**  
*Dave Corbett*





TBD  
IHNS Deputy

Jill Hruby  
IHNS SMU VP



Global Security  
**Rodney Wilson**

Engineered Security  
Systems  
*Holly Dockery*

Arms Control,  
Nonproliferation and  
Nuclear Security  
*Pablo Garcia*

Cooperative Threat  
Reduction  
*Ren Salerno*

DOE (NNSA), DOS,  
DOD (DTRA)

WMD Counterterrorism  
and Response  
**Billy Marshall**

Airworthiness and  
Infrastructure Assurance  
*Bob Mata*

Nuclear Incidence Response  
*Brad Parks*

Nuclear Counter Terrorism  
*Billy Marshall*

CBRNE Technology  
Development  
*Brad Parks*

DOE (NNSA), DOD,  
FAA, FBI

Homeland Security  
Programs  
**Duane Lindner**

Chem-Bio National Security  
*Paula Imbro*

Nuclear & Radiological  
Security  
*Heidi Ammerlahn*

Weapons Remediation  
*Jim Lund*

Aviation & Explosives  
Security  
*Wen Hsu*

Disaster Management &  
Resilience  
*Richard Griffith*

Borders & Maritime  
Security  
*Holly Dockery*

Homeland Security Policy  
& Initiatives  
*Nate Gleason*

DHS (S&T, CBP, FEMA,  
DNDO, TSA, USCG, USSS,  
OHA, Policy), DHHS (NIH),  
DOD (Army, DTRA, DARPA)

Cyber and Infrastructure  
Security  
**Len Napolitano**

Cyber  
*Bob Hutchinson*

Resilient Infrastructure  
Systems  
*Bill Rhodes*

DHS (NPPD, S&T)

Homeland Defense &  
Force Protection  
**David Corbett**

Air Force Nuclear Security  
Engineering  
*Randy Peterson*

DOE/NNSA Nuclear  
Security Engineering  
*Randy Peterson*

Navy Nuclear Security  
Engineering  
*Jennifer Nelson*

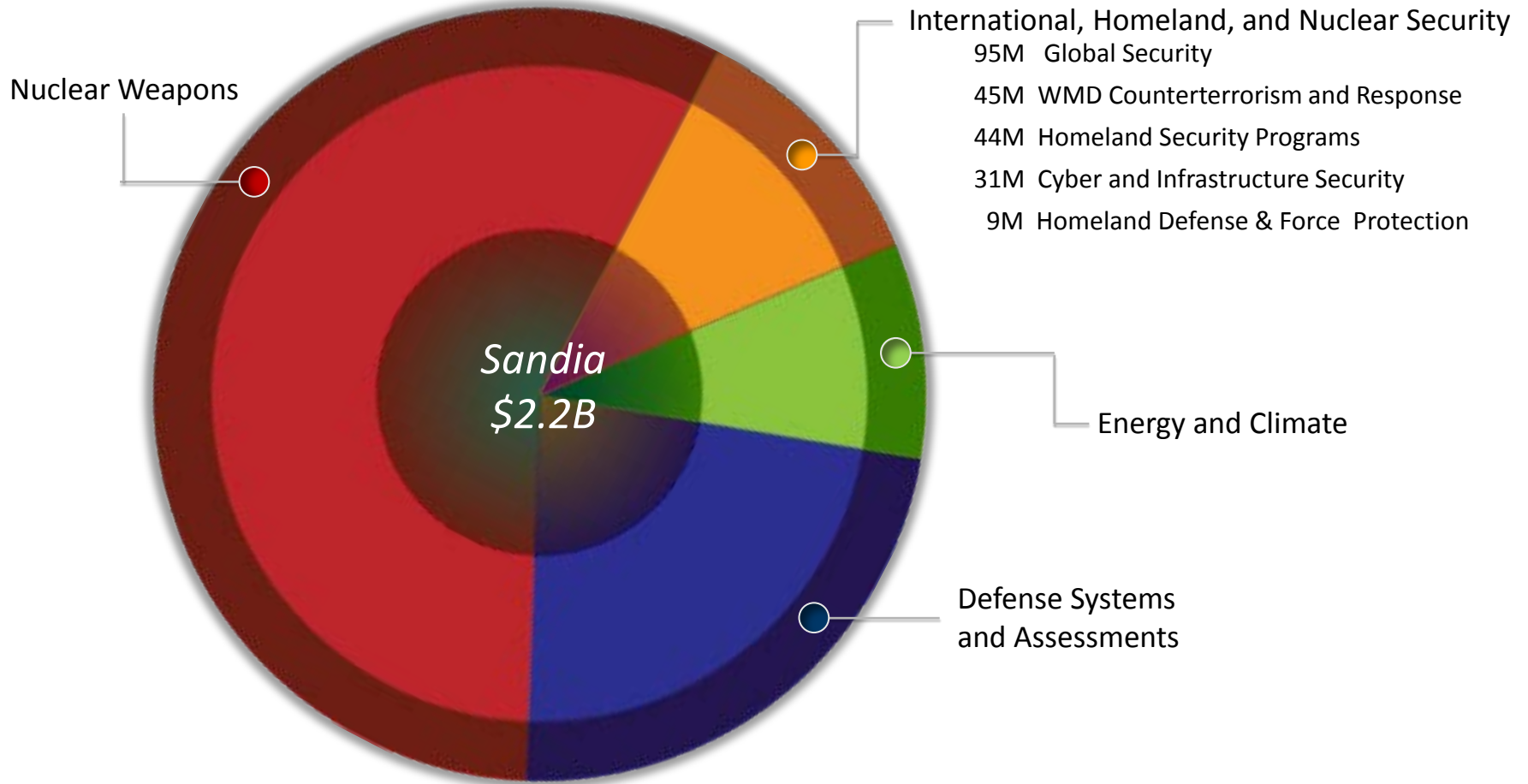
Technologies and Systems  
For Emerging Threats  
*Phil Heermann*

DOD (Air Force, Navy, Army,  
DTRA, DARPA, COCOMs),  
DOE (NNSA), Industry

Key Customers

Key Customers

# FY14 Projected Revenue



*totals from February 2014 projection call*





# International, Homeland, and Nuclear Security

## Program Areas

- Global Security
- WMD Counterterrorism and Response
- Homeland Security
- Cyber and Infrastructure Security
- Homeland Defense and Force Protection

## Capabilities

- *Nuclear, radiological, biological, explosives, and chemical science and engineering*
- *System analysis, engineering, and integration*
- *Physical and cyber security methods, technologies, and systems*
- *Predictive modeling and simulation of interdependent systems*
- *Decontamination and restoration approaches and technologies*
- *International security technologies and policy*





# Global Security and Cooperation

*We reduce proliferation and terrorism threats to U.S. national security through global technical engagement.*

- Enhance security of nuclear weapons stockpiles and weapons-usable nuclear material in countries of concern and the ability to detect illicit trafficking of those materials at international border crossings including airports, seaports and other points of entry/exit
- Provide technical support to US government policy makers for arms control and international agreements
- Develop sustainable technologies for international biorisk management, and create capacities within nations to prevent the misuse of biological and chemical materials
- Develop and deliver innovative and sustainable technologies to protect at-risk WMD-usable nuclear and radiological materials worldwide from theft and sabotage

*Engineered Security Systems*

*Arms Control, Nonproliferation  
and Nuclear Security*

*Cooperative Threat Reduction (CTR)*



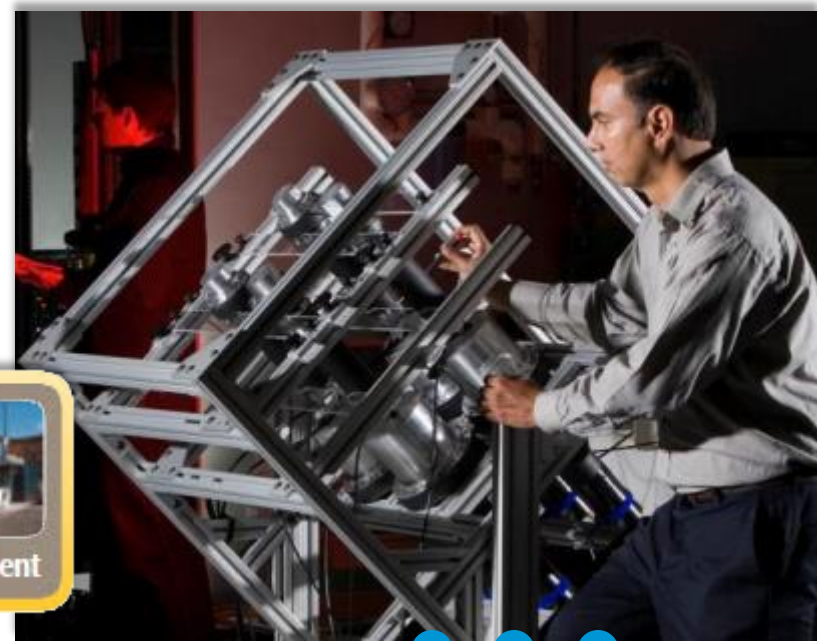




# Global Security and Cooperation

*We are committed to...*

- Developing partnerships to build a global capacity to prevent the misuse of nuclear, chemical, biological and radiological materials
- Providing systems and technologies that both inform and implement national security policy





# WMD Counterterrorism and Response

*We work to counter terrorist threats, reduce the risk of disasters, and respond to dangerous events.*

- Provide operational planning assistance and training to counter domestic and international nuclear and radiological terrorism.
- Conduct specialized training for nuclear and explosive threats for warfighters and law enforcement.
- Develop and assess technologies for evaluating airframe and other critical structural integrity.



*Nuclear Incidence Response*

*Nuclear Counter Terrorism*

*Chemical, Biological, Radiological,  
Nuclear and Explosives Technology  
Development*

*Airworthiness and Infrastructure  
Assurance*





# WMD Counterterrorism and Response

*We are committed to...*

- Expanding specialized training centers for nuclear and explosive threats for the DoD and law enforcement communities
- Providing broader support to ensure public aviation safety and security across the enterprise







# Homeland Security Programs

*We reduce the risk to our nation of terrorist threats and significant natural incidents through technical leadership, unbiased expertise, mission-focused R&D, and delivery of engineered solutions.*

- Perform research & development and systems studies in major threat areas including nuclear, radiological, biological and explosives
- Create tools to support emergency management training and operations
- Create capabilities for chemical weapons remediation
- Conduct large-scale operations support and systems analysis for border security
- Conduct testing and evaluation for technologies to be deployed in operational environments
- Develop and transition advanced chemical, biological, and radiological detection systems
- Develop approaches to assess and improve resilience



*Chem Bio National Security  
Aviation and Explosives Security  
Weapons Remediation  
Nuclear and Radiological  
Borders and Maritime Security  
Disaster Management and Resilience  
Policy and Initiatives*



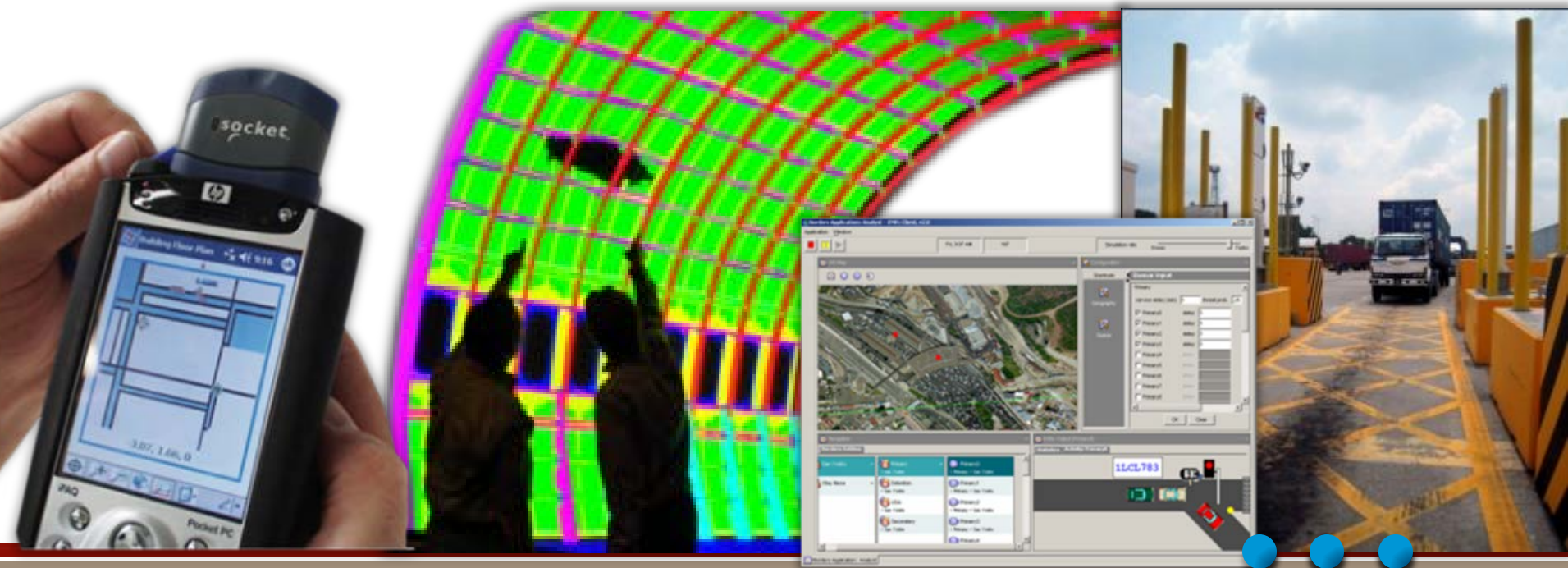




# Homeland Security Programs

*We are committed to...*

- Helping operational customers address complex and rapidly evolving technical problems as an honest broker
- Providing needed science and technology solutions in major threat areas
- Expanding support to national policy development





# Cyber and Infrastructure Security

*We develop and apply technologies and analytical approaches to secure the nation's critical infrastructure against natural or malicious disruption.*

- Conduct large-scale analyses that increase our understanding of US and key global infrastructure interdependencies, coupled with real-time analyses that use the large-scale data to increase system resilience.
- Assess physical and cyber infrastructure risks under a common risk-management framework.
- Develop infrastructure and cyber solutions that advance security and resiliency.

*Cyber*

*Resilient Infrastructure Systems*





# Cyber and Infrastructure Security

*We are committed to ...*

- Working with US government agencies to ensure the integrity and availability of the nation's cyber infrastructure.
- Enhancing preparedness, protection, response, recovery, and mitigation.
- Understanding the linked, interdependent nature of the nation's critical infrastructures.
- Facilitating wide spread commercialization/adoption of laboratory technologies by the private sector.







# Homeland Defense & Force Protection

*Providing technology and systems solutions to confront continually changing threats to critical DOE and DoD assets and missions from intruders, radiological, nuclear and other combined threats.*

- Design, develop, test, and implement physical security technologies and systems to protect nuclear weapons and other high value assets, facilities and systems
- Develop and apply innovative technologies to address emerging threats and respond to incidents and accidents impacting national security

*Air Force and Navy Nuclear Security  
Engineering*

*DOE/NNSA Nuclear Security Engineering*

*Technologies and Systems  
for Emerging Threats*







# Homeland Defense and Force Protection

*We are committed to...*

- Providing a Center of Excellence for Physical Security to support the DOE and DoD in ensuring the security of the Nation's nuclear arsenal and special nuclear materials
- Creating effective internal and external partnerships to provide systems and technologies to address current and emerging future threats to the homeland

