SRNL™
SAVANNAH RIVER NATIONAL LABORATORY
Operated by Savannah River Nuclear Solutions, LLC

We Put Science To Work

Accelerating SRNL and SRS Missions through Innovative Computing and Communications

Dr. Mary K Harris, Computational Sciences Director

- Enhance safety and security with modern technology
- Implement the next generation network to enable collaboration and sharing
- Showcase Green IT with an innovative data center
- Accelerate footprint reduction with a flexible infrastructure
- Improve cost-effectiveness through modern systems

Produced by SRNS
in conjunction with DOE-SR

U.S. DEPARTMENT OF ENERGY | Office of Environmental Management

Outline

- SRNL Background
- Organizational Structure
- Strategic Initiatives – Information Services
  - ***SRS***
  - ***SRNL***
- Summary

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Savannah River National Laboratory

- Located on the Savannah River Site
  - DOE EM/NNSA
  - Currently managed by SRNS
  - ~ 310 sq. miles
  - ~ 6400 SRNS employees
  - ~ 900 SRNL employees

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SRNL Organization

Dr. Paul T. Deason, Jr.
Acting Laboratory Director

Dr. John Veldman
Associate Laboratory Director for
National and Homeland Security

Dr. Jeff Griffin
Associate Laboratory Director for
Environmental Management

Dr. Joette Sonnenberg
Associate Laboratory Director for
Energy Security and Engineering

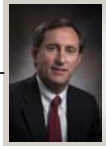
Dr. John Marra
Associate Laboratory Director for
Strategic Research Initiatives

Dr. Natraj Iyer
Director of Materials
Science & Technology

Lori Chandler
Director of Analytical
Development

Deborah Shedrow
Director of Environmental
Science & Biotechnology

Dr. Mary Harris
Director of Computational
Sciences



Mike Swain
Manager of Research
Operations

Larry Frelin
Business Manager

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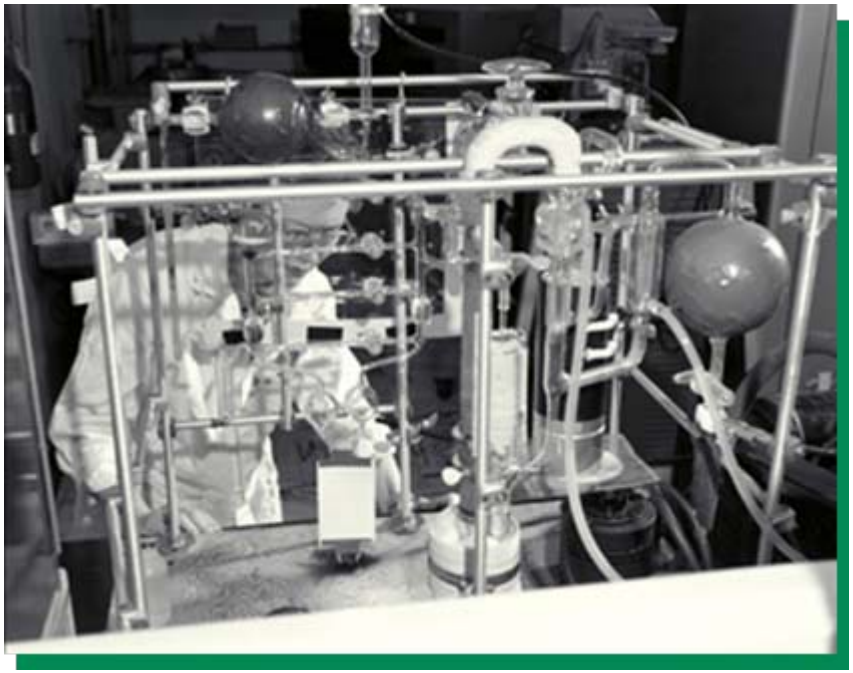
Early Days of the Laboratory

- Began operation in 1953
- Original mission:
  - Reactor research
  - Chemical separations
  - Tritium/Hydrogen support
  - Environmental science and monitoring
- Changing mission:
  - End of Cold War in 80's focus on safe containment disposition/clean up/D&D
  - Response to 9/11 homeland security initiatives
  - Need for energy independence dual use of hydrogen technology



SRNL brought technological support to nation's cold war efforts

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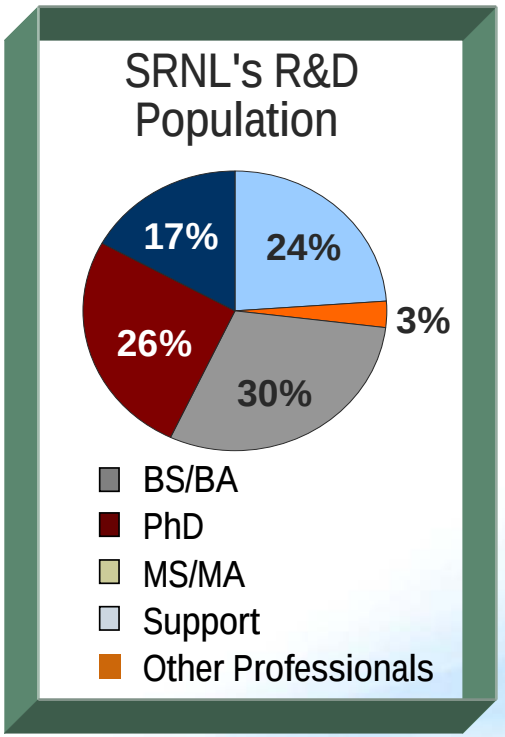
SRNL Today – Staffing Statistics

SRNL continues to put science to work for the nation

- Total staff – 932
- Research staff – 731
- 26 percent with PhDs
- Wide range of disciplines
  - **Chemists**
  - **Mech Eng**
  - **Chem Eng**
  - **Elec Eng**
  - **Met Eng**
  - **Nuc Eng**
  - **Other Eng**
  - **Physicists**
  - **Bio Sci**
  - **Math/Comp Sci**



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SRNL's Laboratory Directorates

National and Homeland Security

- Tritium Technology
- Plutonium Technology
- Homeland Security Support
- Non-Proliferation Technology
- National Law Enforcement

Energy Security & Engineering

- Hydrogen Storage Technology
- Alternative/Renewable Energy Research
- Robotic, Remote & Specialty Equipment
- Instrumentation
- Packaging

Environmental and Chemical Process Technology

- EM Corporate Laboratory
- Materials Stabilization and Disposition
- Cleanup Technologies
- Performance Assessment

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Organizational Structure of Information Services (IS) and SRNL

- IS - support organization that provides support for almost all subcontractors at SRS
  - business apps, network, telecommunications, help desk, cyber security guidance & policy
- SRNL – Manage HPC environment, LIMS, atmospheric technologies, implement cyber security for laboratory, and a few other odds and ends

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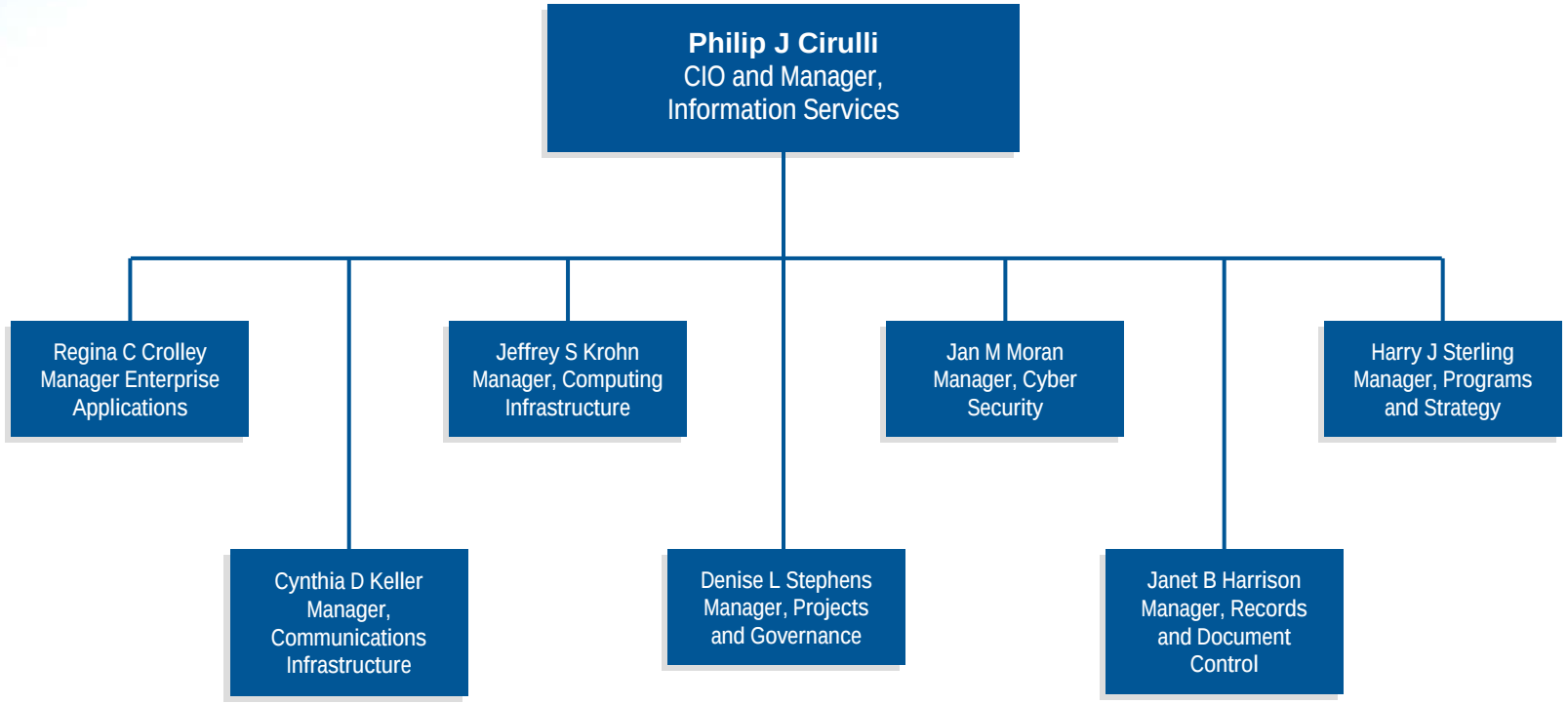
Information Services Organization



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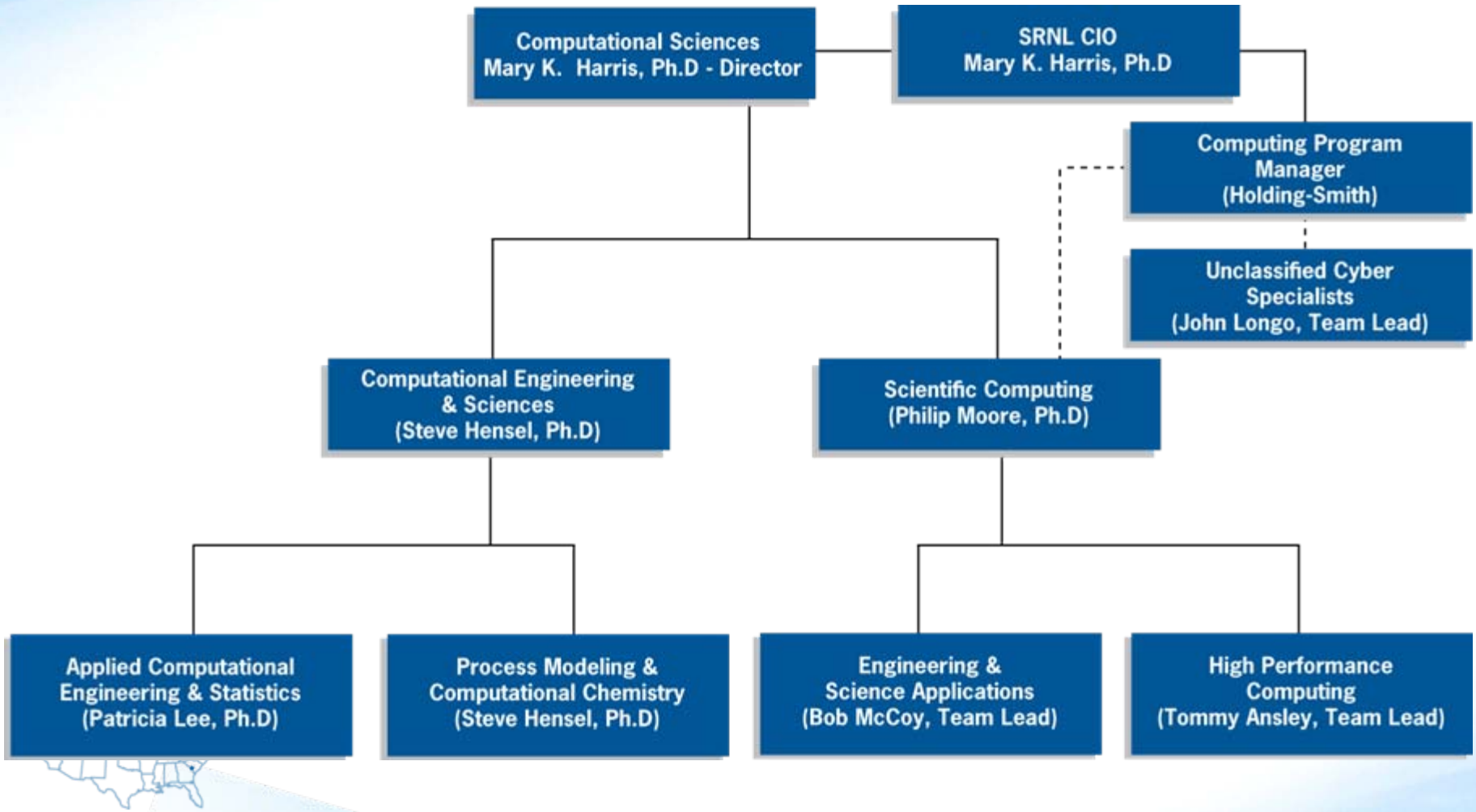
Computational Sciences Directorate



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Strategic Initiatives

1. Enhance Remote Access Capability
2. Implement Next Generation Network
3. Replace Perimeter Firewalls
4. Modernize Business Systems
5. Establish Wireless Infrastructure
6. Green Computing
7. Establish the SRNL EM User Facility
8. Modernize Telecommunications
9. Integrate Video and Multi Media Services
10. Implement Security Operations Center
11. Enhance Document Control
12. Implement Enterprise Control Management
13. Establish DOE-EM Knowledge Repository

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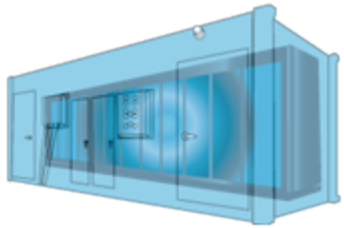
SRS Initiatives Five-Year Timeline

	FY10	FY11	FY12	FY13	FY14	
Flexible Infrastructure						
Remote Access						
Wireless Infrastructure						
Sustainable Platform						
Replace Firewall						Secure
Cyber Security Operations Center						
Next Generation Network						Cost Effective
Business Systems						
Green Computing Center						
Telecommunications						Collaboration
EM User Facility						
Video/Multi-Media						
Knowledge Resource Management						
Document Control						
Enterprise Content Management						
Knowledge Resource Management						



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Initial Priorities

- **Implement Next Generation Network:**
  - **Refresh existing network equipment (funded)**
  - **Increase bandwidth and connectivity**
  - **Demonstrate and prototype VOIP for significant user group**
  - **Replace the telephone infrastructure with VOIP and move toward a unified communications environment**
  - **Integrate Video Infrastructure and multi-media content services**
  - **Establish next generation video and audio capabilities for internal and external collaboration**

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Initial Priorities

- **Green Computing**
  - **Establish SRS Green Computing Center**
  - **Establish a Backup Vault Type Room**
- **Establish wireless infrastructure**
  - **Establish Wi-Max wide area infrastructure**
  - **Enhance GPS tracking of Remote Workers**
  - **Improve Cellular Coverage and improve commercial service quality and options**
- **SRNL Computing**
  - **Establish HPC Green Computing POD**
  - **Establish the SRNL EM User Facility**
- **Enhance remote access capability**

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Recent IS Accomplishments

- Improved user interfaces/functionality to site systems
  - Implemented Sametime Instant Messaging
  - Implemented Citrix for Remote Access
- Improved Services
  - Renegotiated Cellular Contract and added GPS and Text Messaging
- Implementing new Business Systems
  - Finance, Supply Chain, Project Management underway to deliver improved site business processes
  - Recruiting management via Brass Ring
  - Upgrades to employee development and performance management systems underway functions at the site

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Recent IS Accomplishments

- Improved Operational Systems
  - New cost processer
  - Improved RadCon system
  - Enhanced Industrial Hygiene systems
- Improved transparency
  - Created Portal/Dashboards for SRNS management and DOE
- Improved Services to support ARRA/D&D functions at the site
  - Wi-Max implemented in remote area

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What Next ?

- Enterprise *"Single Sign-on"* – Jun
- Enterprise Email Archiving – Dec
- Windows 7 Upgrade – 1st Qtr 2011
- Windows Office 2007 Upgrade - Nov
- Sametime Collaboration Pilot Only - Jul
- Hosted Audio Conferencing – Jun
- In Building Cellular Coverage – Jun
- First BPMP Delivery (Ledger) - Oct

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How will we get there?

- Continue to look for funding opportunities
- Work with other National Laboratories and other DOE sites in leveraging best practices

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