National Laboratories Office Overview
The Texas A&M University System

Marvin Adams
Director of Research and Education to Advance Laboratory Missions

L. Diane Hurtado
Associate Vice Chancellor for National Laboratories Management

M. Katherine Banks
Vice Chancellor of Engineering and National Laboratories
- Overall responsibility for execution of Texas A&M System national laboratory engagement
- Principal executive engaged with Triad National Security, LLC (Triad)
- Serves on the Triad Board of Directors

L. Diane Hurtado
Associate Vice Chancellor for National Laboratories Management
- Primary point of contact and facilitator for Texas A&M System national laboratory engagement
- Liaison to the Los Alamos National Laboratory (LANL) leadership team and Triad Board and Committees

A. Scott Sudduth
Associate Vice Chancellor for Federal Programs
- Oversees the national laboratory engagement on Capitol Hill and DOE Headquarters
- Serves on the Triad Board of Directors

Marvin Adams
Director of Research and Education to Advance Laboratory Missions
- Facilitates engagement of Texas A&M System researchers and educators with national laboratories
- Chair of Triad Mission Committee

Texas A&M System National Laboratories Office Leadership
Texas A&M System National Laboratories Office Mission

Serve the nation by expanding engagement between Texas A&M System faculty, staff and students and the national laboratories

DOE National Laboratories and Sites

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<th>Initial Focus</th>
<th>Other DOE National Laboratories</th>
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<td>DOE National Nuclear Security Administration Labs and Sites</td>
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Faculty Engagement

The Texas A&M System National Laboratories Office strives to lower the barriers for engagement with the labs in teaching, research and service.

Student Engagement

Pipeline:
• Labs hire numerous student interns year round
• Many labs offer generous graduate and postdoctoral fellowships
Los Alamos National Laboratory (LANL) Overview

- Established in 1943 – 75 years serving the nation
- Mission: Solving national security challenges through scientific excellence

LANL Overview

- 40 square miles
- 47 technical areas
- 1,280 buildings / 9M sq. ft.
- 11 nuclear facilities
- 268 miles of roads
- 8,750 career employees / 12,000 workers on site
- 2,100 R&D scientists
- 1,100 veterans
- 390 postdocs
- $2.6B budget
LANL’s Missions: Strategic Deterrence

Anticipating and addressing emerging, asymmetric threats

- Assessment of foreign nuclear weapons programs
- Mini-satellites supporting DoD mission
- Next generation of radio communications
- 50 years of International Safeguards
- Development of monitoring techniques for nuclear testing
- Next generation of satellite detectors for nuclear explosions

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<th>Nuclear Counterproliferation</th>
<th>Stockpile Stewardship</th>
<th>Nuclear Nonproliferation</th>
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<td>Detecting and preventing the development or use of nuclear weapons and improvised devices</td>
<td>Assuring our nation’s defense with a strategic nuclear deterrent through theory, modeling &amp; simulation, and experimentation</td>
<td>Reducing and limiting nuclear arms and the spread of nuclear materials, technology, and expertise through cooperation and diplomacy</td>
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LANL Management Background

- Government-Owned Contractor-Operated (GOCO)
- >$2.5B/yr
- 1943-2006: contractor was University of California System (UC)
- 2006-2018: contractor was Los Alamos National Security, LLC (LANS), with partners UC, Bechtel, BWXT, AECOM
- 2017: competition began for new contractor
LANL Competition

- Draft solicitation released; immediately started meeting with potential partners
- Request for proposal released
- Orals completed
- Award announced
  - Top-rated technical and management
  - Lowest cost
- Site visit for interested parties
- Chose to join Triad team
- Proposal submitted
- Final proposal submitted

LANL Competition

- Demonstrated performance managing five DOE national laboratories
- World's largest independent, nonprofit R&D organization
- Largest nuclear engineering program in the U.S., with emphasis on criticality safety
- Leading high hazard and emergency response workforce training programs
- 75 years managing LANL and LLNL, where the nuclear stockpile was designed and certified
- Demonstrated commitment to scientific excellence and integrity in public service
- All members contribute broadly to the Statement of Work
- Nonprofit free from commercial interests
- Seamless integrated Board
**Triad Board Committees**

- **Mission**
  - LANL POC: Bob Webster
  - Chair: Marv Adams
  - Member: Steve Cambone
- **Science & Technology**
  - LANL POC: John Sarrao
  - Members: Kathy Banks and Sherry Yennello
- **Operations**
  - LANL POC: K. Beierschmitt
  - Member: Scott Sudduth
- **Finance & Audit**
  - LANL POC: L. Stribley
  - Member: Charlie Hrnčir
- **HR & Compensation**
  - LANL POC: TBD
  - Member: Kathy Banks

**LANL Leadership Overview**

- **Laboratory Director’s Office**
  - Laboratory Director: Thomas Mason
  - Deputy Director ST&E: John Sarrao
  - Deputy Director Weapons: Robert Webster
  - Deputy Director Operations: Kelly Beierschmitt
  - Staff Director: Frances Chadwick

- **Mission**
  - ALD, Global Security: Nancy & Nicholas
  - ALD, Physical Sciences: Antoniette Taylor
  - ALD, Other: Earth & Life Sciences: J. Patrick Ketch

- **Operations**
  - ALD, Weapons Physics: Michael Berardinin
  - ALD, Weapons Engineering: James Owen
  - ALD, Weapons Production: Dave Ryker
  - Director, Actinide Operations: Frank Odin

- **Facilities & Operations**
  - ALD, Business Management: LeAnn Stribley
  - ALD, Facilities & Operations: Bret Simpkins
**LANL: Four Capability Pillars of ST&E**

- **Materials for the Future**
  - Defects and Interfaces
  - Extreme Environments
  - Emergent Phenomena

- **Science of Signatures**
  - Discover Signatures
  - Revolutionize Measurements
  - Forward Deployment

- **Integrating Information, Science, and Technology for Prediction**
  - Complex Networks
  - Computational Co-Design
  - Data Science at Scale

- **Nuclear and Particle Futures**
  - High Energy Density Physics & Fluid Dynamics
  - Nuclear & Particle Physics, Astrophysics & Cosmology
  - Applied Nuclear Science & Engineering
  - Accelerator Science & Technology

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**Anticipated TAMUS Activities with LANL**

**Research**
LANL “Lab Agenda” identifies areas of interest: materials science and engineering, accelerator science and applications, extreme-scale computing, quantum science and engineering, nuclear security, etc.

**Education programs**
Student internships, graduate fellowships, faculty engagement, curriculum development, continuing education

**Workforce Development and Training**
Emergency response and crisis management training, technical certificate training, small business technical training
Progress with DOE Labs

NNSA Labs and Sites
• Umbrella agreements in place
• Numerous high level visitors from NNSA labs and sites
• Lab and site personnel helping teach TAMU courses
• Forming joint appointment programs

Other DOE Lab Progress
• Umbrella agreements with INL and PNNL
• A&M System Professors set to go to INL this summer
• Numerous high level visitors from INL, PNNL, and NREL

If you are interested, let us know

Our office will enhance collaborations and lower barriers
• Contact:
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  – Marvin Adams mladams@tamu.edu or 979-845-4198
  – Website: https://nationallabsoffice.tamus.edu