DoD’s Corporate Environmental Technology Programs

• Basic and Applied Research  • Demonstration / Validation

Environmental Drivers

Reduction of Future Liability

Contamination from Past Practices

• Chlorinated Solvents Remain Intractable
• Large Potential UXO Liability
• New Contaminants Emerging (Perchlorate)

Pollution Prevention to Control Life Cycle Costs

• Elimination of Hazardous Materials Reduces Cost of Operation, Repair & Demil
• Goal is to achieve Compliance Through Pollution Prevention
Environmental Drivers

Sustainability of Ranges and Range Operations

- Maritime Sustainability
- Threatened and Endangered Species
- Toxic Air Emissions and Dust
- Unexploded Ordnance
- Urban Growth & Encroachment
- Noise

Environmental Quality Taxonomy

- Weapons Systems & Platforms
- Munitions Management
- Environmental Restoration
- Sustainable Infrastructure
**DoD Lands**

- 29 Million Acres
- Broad Diversity
- Of Cultural Resources Types

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**Cultural Resources**

Principal Research Issues

Detection of sites via remote sensing
Strategic Environmental Research and Development Program

- Established by FY 1991 Defense Authorization Act
  - DoD, DOE and U.S. EPA partnership

- Purposes
  - Address DoD and DOE environmental concerns through R&D
  - Share data collection and analysis capabilities
  - Identify and share DoD research technology
  - Identify private sector technologies useful to DoD

PROGRAM GOALS

- Demonstrate innovative cost-effective environmental technologies
  - Capitalize on past investments
  - Transition technology out of the lab

- Promote implementation
  - Direct technology insertion
  - Gain regulatory acceptance

Priority: needs of the DoD user community
**SERDP Method**

- Annual Solicitations to Meet DoD Needs
  - Two Solicitations
  - Open to All: Government, Academia, Industry

- Competitive Award
  - External Peer Review
  - Internal and Scientific Advisory Board Review

- Transition to Demonstration/Validation

**ESTCP Method**

- Partner with stakeholders and test at DoD facilities
  - Developer, regulators, end-user
  - Direct transition

- Validate operational cost and performance
  - Independent test and evaluation
  - Satisfy regulatory and user communities

- Identify DoD market opportunities
  - Technology transfer across federal and private sector
Demonstration/Validation

- **Demonstration scale and scope**
  - 3 years or less
  - Limited development
  - Assess full scale cost and performance

- **Validation**
  - Technical performance
  - Operational costs and logistics
  - Regulatory and/or end user acceptance

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**Funding ($ M)**

- **SERDP**
  - FY 02: 60
  - FY 03: 50
  - FY 04: 40
  - FY 05: 30
  - FY 06: 20
  - FY 07: 10

- **ESTCP**
  - FY 02: 25
  - FY 03: 20
  - FY 04: 30
  - FY 05: 40
  - FY 06: 35
  - FY 07: 30

- **Congressional Adds**
**SERDP/ESTCP Projects**

- SI-1260: Detection and Identification of Archaeological Sites and Features Using Radar Data (Dr. Ronald Blom)
- SI-1261: Developing an Efficient and Cost Effective Ground-Penetrating Radar Field Methodology for Subsurface Exploration and Mapping of Cultural Resources on Public Lands (Dr. Lawrence Conyers)
- SI-1263: New Approaches to the Use and Integration of Multi-Sensor Remote Sensing for Historic Resources Identification and Evaluation (Dr. Frederick Limp)
- SI-0611: Streamlined Archaeo-Geophysical Data Processing and Integration for DoD Field Use (Dr. Michael Hargrave)

**Solicitation Timelines**

**SERDP**
- Annual Solicitation - November
- “SEED” Solicitation - November
- Selection in July
- SAB Reviews in August/September

**ESTCP**
- Annual Solicitation - January
- Selection in September