



DoD's Environmental Research Programs

Headlines is a quarterly newsletter highlighting the latest research and demonstration efforts to address the U.S. Department of Defense's (DoD) energy and environmental challenges.

This edition features content related to the SERDP and ESTCP 2020 Symposium, which will be held virtually on 30 November - 4 December.

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SERDP and ESTCP 2020 Virtual Symposium

SERDP • ESTCP SYMPOSIUM

2020 • Enhancing DoD's Mission Effectiveness

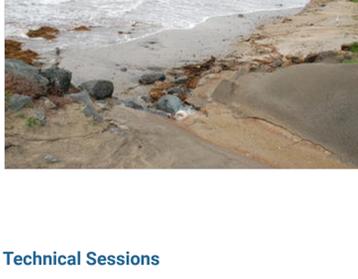
The SERDP and ESTCP Symposium is the nation's largest conference focusing on the U.S. Department of Defense's (DoD) priority environmental and installation energy issues. The Symposium brings together environmental and energy researchers and technology developers with defense end-user and regulatory communities to showcase cutting edge environmental technologies and ideas. The 2020 Symposium will offer 17 technical sessions, 5 short courses, more than 450 technical poster presentations, and 65 poster sessions for attendees to network with poster presenters.

Notable defense and environmental leaders will serve as keynote speakers at the Symposium. This includes the **Honorable Jordan W. Gillis**, Assistant Secretary of Defense for Sustainment; the **Honorable Alex A. Beehler**, Assistant Secretary of the U.S. Army Installations, Energy and Environment; and **Dr. Bruce Rodan**, the Associate Director for Science for the EPA's Office of Research and Development. **Dr. Ainissa Ramirez** will also deliver an address and discuss her new book, *The Alchemy of Us: How Humans and Matter Transformed One Another*.

To learn more about the sessions under each of our program areas, read and visit the blog posts below.

Symposium Sessions

Environmental Restoration



The four Environmental Restoration technical sessions will provide an overview of the innovative research and demonstrations being completed that focus on cleaning and managing impacted lands on current and former military installations. The first session will address the advances in characterization, monitoring, treatment, and management of groundwater sites. The second session will crossover with the Installation Energy and Water program area by highlighting technologies and solutions to improve installation water resilience. The third session will cover emerging issues in known or suspected toxicity parameters, the fate and transport of these compounds in the environment, and treatment options for wastes from munitions manufacturing. The fourth session is a two-part per- and polyfluoroalkyl substances (PFAS) session that will also highlight recent efforts on ecotoxicity and characterization, as well as fielded treatment technologies such as on-site incineration alternatives, treatment trains, and improved sorbent technologies.

[Read more](#)

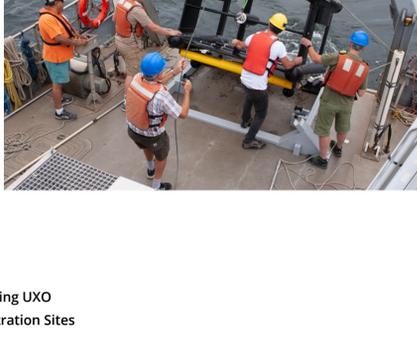
Technical Sessions

- Groundwater Treatment and Management - Challenges and Progress
- Addressing Water Issues on Installations
- Range Resiliency: Fate, Transport and Mitigation of Legacy and Insensitive High Explosive Constituents
- PFAS in the Environment - Where Are We Now, Parts 1 and 2

[View Session Descriptions](#)

Munitions Response

The two Munitions Response technical sessions will highlight efforts to better understand unexploded ordnance (UXO) contaminated sites through demonstration tests and discussing experiences with site project managers. The first session will facilitate a dialogue between site managers and current investigators engaged in developing new detection, classification and localization systems, software analysis methods, and predictive tools to estimate UXO movement. The second session delves into how underwater sensors and platforms used to detect and classify UXO have been developed to a point that controlled demonstration and validation of those systems are needed.



[Read more](#)

Technical Sessions

- Lessons Learned from Remediation of Sites Containing UXO
- Development and Use of Underwater UXO Demonstration Sites

[View Session Descriptions](#)

Weapons Systems and Platforms



The Weapons Systems and Platforms program area will feature four technical sessions and two short courses. The technical sessions will review the development and transition of sustainable technologies that improve readiness and provide specific focus on corrosion reduction, PFAS-free firefighting formulations, energetic materials, and additive manufacturing. The first short course provides guidance on regulatory compliance for DoD supply chain managers and engineers. The second short course demonstrates the application of machine learning to the production of energetic material.

[Read more](#)

Technical Sessions

- Corrosion Mitigation Strategies
- Additive Manufacturing R&D for DoD Operations
- Advanced Methods in Synthesis, Formulations and Development of Sustainable Energetic Materials
- Foams and Emulsions: PFAS-Free Foams and Understanding Bubbles

[View Session Descriptions](#)

Short Courses

- Registration, Evaluation, Authorization and Restriction of Chemicals (REACH): Practical Effects and Approaches
- Machine Learning Tools and their Applications to Novel Energetics

[View Course Descriptions](#)

Resource Conservation and Resiliency



The three Resource Conservation and Resiliency technical sessions aim to communicate findings and enhance DoD mission effectiveness through the improved management of natural and built infrastructure. The first session will delve into the built and natural infrastructure on military installations and lands facing threats from long-term changes in climate and ocean conditions. The second session highlights wildfire and prescribed fire research. The last session examines the management of threatened and endangered species, at-risk species, and invasive species.

[Read more](#)

Technical Sessions

- Installation Infrastructure Resiliency
- Military Land Condition-Readiness, Wildland Fire
- Readiness-Ecosystem, Threatened and Endangered Species and Invasive Species (TES-I)

[View Session Descriptions](#)

Installation Energy and Water



Installation Energy and Water will present four technical sessions and one short course, featuring the latest in energy resilient, energy efficient, and cyber secure technologies. All four sessions will feature ongoing demonstrations and results, where available, of these cutting-edge cost-effective solutions. The first session will focus on microgrids and the advancements and solutions demonstrated in this area. The second session will crossover with the Environmental Restoration program area by highlighting technologies and solutions to improve installation water resilience. The third session will highlight the latest advancements in building energy efficiency technologies, especially in HVAC, lighting, and building control systems. The final session and the short course will both focus on cybersecurity, demonstrating control system cybersecurity technologies, and covering DoD's Risk Management Framework (RMF) requirements and the process to attain an Authority To Operate (ATO).

[Read more](#)

Technical Sessions

- Advances in Installation Energy Resilience Technologies
- Addressing Water Issues on Installations
- Building Energy Efficiency Technologies
- Control System Cyber Security Technologies

[View Session Descriptions](#)

Short Courses

- DoD Risk Management Framework (RMF) and Steps to Obtain Authority to Operate

[View Course Description](#)

SERDP and ESTCP Resources and Guidance



The Symposium will also offer sessions providing more information on funding opportunities and the proposal writing process. The SERDP and ESTCP Director, Deputy Director, and Program Managers will focus on how to partner with SERDP or ESTCP in a research or demonstration project in the Funding Opportunities: How to Partner with SERDP & ESTCP session. At the Guidance and Tips for Preparing Pre-proposals and Proposals, attendees will learn about proposal structure, essential content to include, common pitfalls that may be encountered, and other considerations.

Technical Session

- Funding Opportunities: How to Partner with SERDP & ESTCP

[View Session Description](#)

Short Course

- Guidance and Tips for Preparing Pre-proposals and Proposals

[View Course Description](#)

Upcoming Webinars

Approaches for Managing Contaminated Sediments

Thursday, December 10, 2020 at 12:00 PM (ET)

This SERDP and ESTCP webinar focuses on DoD-funded research efforts to measure and manage contaminated sediments. Specifically, investigators will discuss an approach to develop and validate a standardized polymeric sampler method for quantifying freely-dissolved organic contaminant concentrations of polycyclic aromatic hydrocarbons and polychlorinated biphenyls in sediment porewater, as well as research results following long-term monitoring of an activated carbon amendment remedy to reduce polychlorinated biphenyl availability in surface sediment.

[Learn more and register](#)

Improving Energy Efficiency through Advanced Building Controls

Thursday, January 14, 2020 at 12:00 PM (ET)

This SERDP and ESTCP webinar focuses on an ESTCP-funded project aimed at disseminating knowledge of advanced controls and energy management strategies for improving building efficiency. Specifically, investigators will discuss a comprehensive training and education platform for DoD energy managers, engineers and building operators that enables them to make informed decisions, better specify and commission building control systems, manage and operate buildings more efficiently, and implement the new industry guidelines.

[Learn more and register](#)

[View the full SERDP and ESTCP Webinar Series Schedule](#)

Calendar and Related Events

Related Events

- December 7 – 11: [American Geophysical Union Fall Meeting \(Virtual\)](#)
- December 7 – 11: [Acoustical Society of America Meeting \(Virtual\)](#)

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