

# HOMELAND

## Defense & Security Digest

The Latest From the Homeland Defense & Security Information Analysis Center // July 8, 2025

## JOIN OUR SME NETWORK

Share your expertise with the homeland defense & security community by joining our HDIAC subject matter expert (SME) network. The HDIAC SME network is comprised of volunteers with expertise across our eight technical focus areas who are attentive and available to provide insight and information to other community practitioners.

There are many ways SMEs support the homeland defense & security community including presenting webinars, publishing exclusive articles, responding to technical inquiries, reviewing technical publications, and more.

### Learn more here:

<https://hdiac.dtic.mil/subject-matter-experts/>

## DID YOU MISS OUR LAST WEBINAR?

“Traumatic Brain Injury: Current Landscape and Emerging Research”

 **WATCH NOW!**

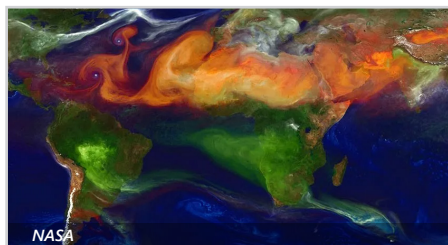
[or download the slides](#)

## NOTABLE TECHNICAL INQUIRY

### What government agencies prioritize work in early-integrated chemical, biological, radiological, nuclear, and explosive threat detection?

Integrated early warning (IEW) for chemical, biological, radiological, and nuclear (CBRN) agents is of critical importance to units operating in a CBRN-contested environment. To facilitate increased situational awareness, the U.S. Department of Defense has continually increased its capacity to detect CBRN... [READ MORE](#)

## UPCOMING WEBINAR



### Grasping Publicly Available Aerosol Data Streams

July 15, 2025  
12:00 PM – 1:00 PM

*Presenter(s):* Jeffrey S. Reid, Ph.D.

*Host:* HDIAC

One of the most difficult challenges of any potential environmental data consumer is coping with the sheer volume, type, and quality of available datasets. Whether this consumer wants to know if they should carry an umbrella or invest in an orange juice future, petabytes of information are... [READ MORE](#)

## FUTURE WEBINARS

### Emergency Management Intelligence: The Need for Civilian Authorities Support

July 29, 2025  
12:00 PM – 1:00 PM



## HIGHLIGHT

### New AFRL Chamber to Enhance Human, Equipment Performance in Extreme Environments

WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFRL) – The U.S. Air Force Research Laboratory (AFRL) hosted a ribbon-cutting ceremony and open house for the new Research Environmental Chamber (REC), May 27, 2025. The capability, part of AFRL's Human Effectiveness Directorate, facilitates equipment and human performance evaluations with control over environmental extremes as well as close observation of subjects.

"The REC is a critical addition to AFRL's research capabilities and a key Department of Defense resource," said Brig. Gen. Robert K. Bogart, 711th Human Performance Wing Commander. [LEARN MORE](#)

## EVENTS

**GridSecCon 2025**  
October 7–10, 2025  
Las Vegas, NV

**TechNet Indo-Pacific 2025**  
October 28–30, 2025  
Honolulu, HI

**Want your event listed here?**  
Email [contact@hdiac.org](mailto:contact@hdiac.org) to share your event.



## VOICE FROM THE COMMUNITY

**Matthew Kuhn**  
*Veterinary Medical Officer, U.S. Department of Homeland Security (DHS) Office of Health Security (OHS)*

Matthew Kuhn is a veterinary medical officer focusing on biodefense issues related to defending our nation's livestock and food supply. His work at OHS is part of a range of portfolios for the DHS enterprise that includes total DHS workforce health, optimal care for individuals in DHS care and custody, and a one-health approach. His directorate, Health, Food, and Agriculture Resilience, focuses on protecting our nation's food security and public health.

## ARE YOU A SME?

If you are a contributing member of the homeland defense & security community and are willing to help others with your expertise, you are a subject matter expert (SME).

Join our team today.

**BECOME A SUBJECT  
MATTER EXPERT**

# TECHNICAL INQUIRIES (TIs)

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## WHAT IS THE TI RESEARCH SERVICE?

- FREE service conducted by technical analysts
- 4 hours of information research
- Response in 10 business days or less

## WHO CAN SUBMIT A TI?

- U.S. government (federal, state, or local)
- Military personnel
- Contractors working on a government or military contract

## WHY UTILIZE THE TI RESEARCH SERVICE?

- Get a head start on your technical questions or studies
- Discover hard-to-find information
- Find and connect with other subject matter experts in the field
- Reduce redundancy of efforts across the government

To submit a TI, go to

<https://hdiac.dtic.mil/technical-inquiries>



## EXAMPLE HDIAC TIs

- What research is available on best practices and technology to ensure the physical security of major data centers that rely on large power supplies and other infrastructure?
- What are the recent innovations in reducing hazardous waste and/or recovering materials during disposal of lithium-based batteries?
- Can a literature search be conducted on the behavioral test apparatus "Blackbox" from Blackbox Bio?

[MORE HDIAC INQUIRIES](#)

## EXAMPLE CSIAC & DSIAC TIs

- What is the most efficient way to connect to updated Future Year Defense Program and president's budget data for use in Power BI data models?
- What information is available on continuous-rod warheads related to design, manufacturing, or performance?
- What intermediate force capabilities/nonlethal weapons have possible applications in the maritime domain?

## VIEW MORE TIs

The Information Analysis Centers answer more inquiries outside the scope of HDIAC's focus areas. To search more research topics, visit our sister websites to expand your search.

[CSIAC INQUIRIES](#)

[DSIAC INQUIRIES](#)





FEATURED NEWS

DARPA Program Sets Distance Record for Power Beaming

In a series of recent tests in New Mexico, the Persistent Optical Wireless Energy Relay (POWER) program achieved several new records for transmitting power over distance. The team recorded more than 800 watts of power delivered during a 30-second transmission from a laser... [READ MORE](#)


RECENT NEWS



**S&T Is Developing New Fentanyl-Detection Technologies**


U.S. Department of Homeland Security





**This Pathologist Isn't Just Studying Blood - He's Helping to Reinvent How We Deliver It**

Uniformed Services University





**NREL and Crysalis Biosciences Collaborate to Scale up Domestic Biomanufacturing Technologies**

National Renewable Energy Laboratory





**Scientists Find a New Way to Help Plants Fight Diseases**

Rutgers





**NSRI Leverages NU Biosecurity, Supply Chain Resilience Expertise for Critical Disease Research**


National Strategic Research Institute





**Testing New Technologies That Help Law Enforcement "See" Through Walls**

U.S. Department of Homeland Security



-  Alternative Energy
-  Biometrics
-  CBRNE Defense
-  Critical Infrastructure Protection
-  Cultural Studies
-  Homeland Defense & Security
-  Medical
-  Weapons of Mass Destruction

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