

DHS Science and Technology Directorate

REDDI – the Regional Explosives Detection Dog Initiative

The Challenge

The Homeland Security Enterprise (HSE) maintains more than 4,000 explosives detection canine teams spread across the federal, state, local and tribal law enforcement community. There is a need for a centralized focal point within DHS to address mission requirements, conduct operationally relevant research, facilitate knowledge sharing, and act as a repository of expert advice on common problems across government, academia and the private sector.

Canines are a demonstrated effective resource, but many of our nation's explosives detection canine teams have limited access to the latest knowledge on explosive threat odors. This could prevent them from realizing their full potential. For example, many teams have limited access to critical training materials and/or limited time to establish rigorous training scenarios. To help, DHS Science and Technology Directorate (S&T), Homeland Security Advanced Research Projects Agency (HSARPA) Explosives Division's Canine Program is planning the Regional Explosives Detection Dog Initiative (REDDI), an effort aimed at advancing the knowledge and capabilities of our nation's detection canine teams.

Multifaceted Solution

Through REDDI, S&T is providing a series of regionally-based events for detection canine teams in the law enforcement community. The events will include classroom instruction and exercises demonstrating common issues which will improve explosives and odor knowledge and appreciation for the participating canine handlers. Fundamental odor recognition evaluations and operational searches based on real-world scenarios will help identify strengths and weaknesses within the HSE and inform the direction of priority S&T program investments. REDDI's goal is to improve explosive detection canine team training effectiveness and efficiency in order to improve overall operational proficiency.

REDDI event highlights:

- Odor recognition trials
- Reality-based operational search scenarios
- Odor exercises/demonstrations
- Improvised Explosive Device Overview
- Explosives and Training Aid Basics
- Lessons learned/results sharing

Are you REDDI?

Participating in a REDDI event will help local detection canine teams understand the importance of having a rigorous operational testing capability and the critical need of efficient and effective maintenance training. This leads to significantly improved mission performance, lower lifecycle costs, and expedited training and deployment. REDDI will kick off with the first event in Lee County, Florida, March 2-3, 2017, and plans are underway to bring REDDI to other regions around the nation.

“This is an opportunity for S&T's HSARPA Explosives Detection Canine Program to provide further outreach and assistance to the larger regional law enforcement canine community,” said Don Roberts, S&T Program Manager. “It also provides participants, through demonstration and knowledge sharing, a venue to validate what they are doing right, and identify potential focus areas to strengthen the capabilities of their teams. At the same time, by observing trends, the program will gain additional insights on how to best meet the needs of the whole of the detection canine community.”



An explosives detection canine team working in an odor recognition trial.
Photo courtesy of JHU-APL

Partners

S&T's HSARPA Explosive Detection Canine Program is working with numerous subject matter experts to design and plan the REDDI events:

- Battelle Memorial Institute
- Johns Hopkins University Applied Physics Laboratory (JHU-APL)
- Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division



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To learn more about the Regional Explosives Detection Dog Initiative (REDDI), contact Don Roberts, Program Manager, at SandT.Explosives@hq.dhs.gov