

DHS Science and Technology Directorate Response and Defeat Operations Support (REDOPS)

REDOPS Aims to Neutralize Improvised Explosive Devices

Improvised explosive devices (IEDs) are generally easy to develop, difficult to combat and cause serious damage to people and property. To address the evolving threats, the Response and Defeat Operations Support (REDOPS) program takes a systems analysis approach, working with explosives countermeasures experts from all levels of government to identify best practices for rendering IEDs safe. The program also conducts Research, Development, Testing & Evaluation (RDT&E) of technologies needed by state and local bomb squads (SLBS). The new capabilities developed, along with current Tactics, Techniques and Procedures (TTPs), help protect and save the lives of state and local bomb technicians and the public. In addition, the outputs associated with this project provide SLBS with the ability to perform their duties better, faster and more safely.

Research and Development (R&D) Thrust Areas for Defeating IEDs

REDOPS is a Department of Homeland Security Science and Technology Directorate (S&T) program that supports public safety bomb technicians. The program provides a collaborative structure for addressing IED response and defeat capability gaps identified by federal, state and local bomb technicians, including the National Bomb Squad Commander's Advisory Board (NBSCAB).

REDOPS builds on existing investments, supports easy-to-use solutions and transitions technologies to the end user. The program's portfolio addresses four primary areas:

- *IED Defeat Tools and Capabilities:* The Research and Prototyping for IED Defeat (RAPID) thrust area develops and assesses specialized tools and capabilities to address evolving threats. The results of these efforts are transitioned directly to the bomb technician through the Federal Bureau of Investigation's (FBI) Hazardous Device School.
- *Test Bed Assessments:* REDOPS performs operational assessments of emerging technologies, emphasizing the compatibility of new technologies with currently fielded systems or tools. Knowledge products are shared with the end user via the FBI.

- *Micro R&D Systems:* REDOPS works closely with bomb technicians from across the U.S. to identify locally manufactured tools that will meet the capability needs of the broader bomb technician community. Products are assessed for effectiveness and safety prior to being shared with the end users via multiple communication channels.
- *Long-term R&D Solutions:* REDOPS develops technologies based on prioritized capability gaps identified by bomb technicians supporting the S&T First Responder Resource Group. Deliverables include robotics, defeat technologies and other protective systems.



Bomb-suited public safety bomb squad technician prepares to disable an IED.

A Collaborative Effort

REDOPS draws on expertise from all levels of the IED response community, collaborating with NBSCAB and state and local bomb squads from across the country. National-level collaborators include the FBI, the interagency Joint Program Office for Countering IEDs, the Electronic Countermeasures Steering Group, the Department of Defense (DoD) Defense Threat Reduction Agency and the DoD Technical Support Working Group.