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July 19, 2010

H.R. 4842, the Homeland Security Science and Technology Authorization Act of 2010

H.R. 4842, the "Homeland Security Science and Technology Authorization Act of 2010" reauthorizes the Department of Homeland Security's (DHS) Science and Technology Directorate (S&T) and Domestic Nuclear Detection Office (DNDO) through 2012.

Since 2003, S&T has been responsible for developing technologies to address homeland security capability gaps, as identified by DHS and its operational components – most notably Customs and Border Protection (CBP), the U.S. Coast Guard (USCG), the Transportation Security Administration (TSA), and Federal Emergency Management Agency (FEMA). DNDO was established in 2006 to develop detection technologies for nuclear and radiological devices—a high-consequence terrorist threat.

This bipartisan legislation, introduced by Committee on Homeland Security Subcommittee on Emerging Threats, Cybersecurity, Science and Technology Chairwoman Yvette Clarke (D-NY) and Ranking Member Dan Lungren (R-CA), reauthorizes the activities of S&T and DNDO and puts these two DHS components on a path to greater effectiveness and efficiency by requiring strategic plans, benchmarking, and accountability systems.

Specifically, in response to oversight findings of the Committee on Homeland Security, the Government Accountability Office, and the DHS Inspector General, H.R. 4842 requires S&T to establish requirements for how basic and applied homeland security research is identified, prioritized, funded, tasked, and evaluated. H.R. 4842 recognizes the need to prioritize research around risk and authorizes the establishment of Testing, Evaluations and Standards Division within S&T to help ensure that technology is properly evaluated. Additionally, in an effort to foster better collaboration between S&T and private sector firms—most especially small firms—with promising homeland security technologies, H.R. 4842 authorizes the Office of Public-Private Partnerships. Within this office, the Rapid Rapid Review Division is charge with establishing an accessible, streamlined system to conduct timely reviews of unsolicited technology proposals.

H.R. 4842 requires S&T to give particular attention to the border security mission. Specifically, the Homeland Security Science and Technology Authorization Act of 2010 authorizes S&T, in coordination with CBP, to pursue research and development to improve effective control of the international land borders of the United States within 5 years (Sec. 409). In advance of floor consideration, the Committees on Homeland Security and Science and Technology collaborated extensively on this legislation and worked together to bolster border security research programs.

More broadly, H.R. 4842 directs S&T to work towards giving DHS new tools to address the threat of terrorism and enhance homeland security by conducting researching and development of:

- mobile biometric technologies for deployment at the border (Sec. 807), technology to enhance detection of border tunnels (Sec.804), and utilization of global positioning satellite systems for detection of unauthorized border crossings (Sec. 806);
- hand-held detectors for DHS to do rapid detection of biological threats at ports and airports (Sec. 411) and the dual-use terrorist risks of synthetic genomics (Sec. 407);
- maritime domain awareness enhancements (Sec. 410), technologies to improve the security of underwater public transportation tunnels against explosives (Sec. 408), and technologies to mitigate the threat of small vessel attack (Sec. 419);
- cyber compromises to federally-owned networks and devices that are essential to the reliable operation of critical infrastructure (Sec. 406)
- enhancements to unmanned aerial surveillance technology for safe and effective deployment for border and maritime missions (Sec. 803); and
- technologies to strengthen document security and authentication (Sec. 805).

With respect to DNDO, H.R. 4842 reauthorizes this vital agency to reflect the movement of research and development activities to S&T. At the same time, H.R. 4842 puts requirements for strategic planning, benchmarking, and accountability in place at DNDO that are parallel to the requirements for S&T. Additionally, it authorizes $20 million for the Securing the Cities program for fiscal year 2011 and directs DNDO, in fiscal year 2012, to add at least two new cities, based on risk, to this radiation detection program in operation in New York City. (The House approved H.R. 2611, which authorized the Securing the Cities program on January 20, 2010.)

<u>Authorization of Appropriations</u>:

- S&T- $1.12 billion for fiscal year 2011 ($12 million over the President's request to restore funding for the University Programs) and $1.15 billion for fiscal year 2012 (3% increase over the 2011 level).

- DNDO- $305.8 million for fiscal year 2011 (President's request) and $315 million for fiscal year 2012 (3% increase over 2011 level).

<u>Committee Activity</u>:

- H.R. 4842, the "Homeland Security Science and Technology Act" was approved by the Committee on Homeland Security on April 15, 2010 by a vote of 26 to 0.