



S&T Reforms: Integrated Product Teams and Technical Assessments

November 6, 2015

Fiscal Year 2015 Report to Congress



Homeland
Security

Science and Technology Directorate

Message from the Under Secretary

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I am pleased to submit the following report, "S&T Reforms: Integrated Product Teams and Technical Assessments," which has been prepared by the Science and Technology Directorate.

This report was prepared pursuant to language in House Report 113-481 accompanying the *Fiscal Year 2015 Department of Homeland Security Appropriations Act* (P.L. 114-4).

Pursuant to congressional requirements, this report is being provided to the following Members of Congress:



The Honorable John R. Carter
Chairman, House Appropriations Subcommittee on Homeland Security

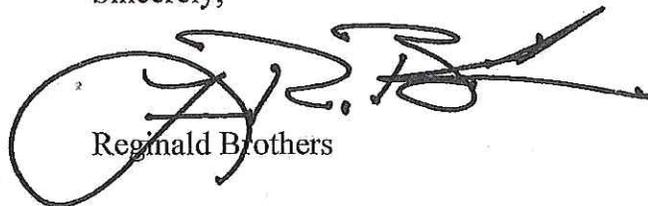
The Honorable Lucille Roybal-Allard
Ranking Member, House Appropriations Subcommittee on Homeland Security

The Honorable John Hoeven
Chairman, Senate Appropriations Subcommittee on Homeland Security

The Honorable Jeanne Shaheen
Ranking Member, Senate Appropriations Subcommittee on Homeland Security

Inquiries related to this report may be directed to me at (202) 254-6033 or to the Department's Deputy Under Secretary for Management and Chief Financial Officer, Chip Fulghum, at (202) 447-5751.

Sincerely,



Reginald Brothers



S&T Reforms: Integrated Product Teams and Technical Assessments

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I. Legislative Language

This report was prepared pursuant to language in House Report 113-481 accompanying the *Fiscal Year 2015 Department of Homeland Security (DHS) Appropriations Act* (P.L. 114-4).

House Report 113-481 states:

S&T Reforms

The Committee is pleased that DHS and S&T have developed a definition of research and development (R&D), but continues to be concerned about the lack of a comprehensive strategy for R&D conducted by the Department. There is still no formal process or guidance across the Department for setting R&D priorities, defining R&D requirements, or setting R&D goals and milestones. In order to ensure that effective R&D guidance is established and maintained, the Department is directed to issue a management directive, not later than 180 days following enactment of this Act, that includes: a process for ensuring the Department's resources are allocated to projects that address its highest priorities; the definition of R&D; a process for identifying capability gaps; the methodology for determining when R&D is an appropriate response to such gaps; and an outline of the requisite steps for performing R&D. The directive shall also include a Department-wide policy for regular, comprehensive reviews by S&T of component technical plans to assure that the plans are technically achievable and complement, but do not overlap with other S&T or component activities. S&T shall submit a report to the Committee within 180 days after the date of enactment of this Act on S&T's assessment as to the technical achievability of the component plans, recommended changes to improve the performance of the plans, and a detailed overview of how the plans complement ongoing S&T activities.

II. Introduction

DHS requires a mechanism for capturing and understanding the research and development (R&D) that occurs across the Department. Additionally, DHS faces the challenge of how R&D is coordinated to reflect the Department's priorities. As part of the Unity of Effort initiative and to address the above concerns, DHS is establishing integrated product teams (IPT) to assist the Science and Technology Directorate (S&T) with requirements gathering, validation, and aligning of budgetary resources. S&T will also play a critical role in helping DHS-wide major acquisition programs by conducting independent technical assessments of acquisitions to ensure that DHS acquisitions meet the capability gap that they were designed to fulfill. S&T currently is reviewing and updating the applicable DHS directives to reflect the changes outlined in this report.

III. Integrated Product Teams

IPTs are cross-DHS entities tasked to identify and prioritize technological capability gaps within the Department and to coordinate departmental R&D to close those gaps. IPTs will help DHS to achieve a comprehensive understanding of all DHS R&D activities and to continue to move from decisions made in stovepipes. The overall IPT effort will be led by the Under Secretary for Science and Technology, but individual IPTs will be led by senior representatives from the operational Components with representation from Joint Requirements Council (JRC) Portfolio Teams and support from S&T. The IPTs will be aligned to DHS mission areas and will incorporate an S&T-led technology assessment for all major acquisitions in the Department. These efforts will broaden and deepen the Unity of Effort Initiative.

The five IPT topic areas are:

- Aviation Security (DHS Core Mission 1)
- Biological Threat (DHS Core Mission 1)
- Counterterrorism (DHS Core Mission 1)
- Border Security (DHS Core Mission 2)
- Cyber Security (DHS Core Mission 4)

In addition, sub-IPTs will be created to address key issues such as resilience. IPTs will be the central mechanism for the Department, in a unified and transparent manner, to identify and coordinate its R&D efforts in DHS Core Missions. The IPT process will ensure that the Department is investing in nonduplicative technologies that directly address Component capability gaps as efficiently and effectively as possible. This will allow DHS to have a unified, comprehensive understanding of all R&D across the Department.

Each IPT will be responsible for delivering a prioritized list of technological capability gaps and corresponding R&D investments within the IPT's mission space. Once compiled by each IPT, these prioritized, mission-focused lists will then be sent to the DHS Research and Development Council (RDC). The RDC, made up of the IPT chairs, representatives from DHS leadership, and others, then will coordinate with the JRC to prioritize the lists generated by the individual IPTs. This will result in a prioritized list of capability gaps and corresponding R&D investments across the entire DHS enterprise, which will be presented for review to the Under Secretary for Science and Technology. Upon approval, this final list will be presented to the Secretary/Deputy Secretary and integrated into future DHS budget submissions.

In addition to the above new IPTs, S&T will continue its First Responder IPT, the First Responder Resource Group (FRRG). Operating within FRG for the past 3 years, the FRRG is composed of 150 fire, emergency medical service, emergency management, and law enforcement first responders. As with the new IPTs, the members provide personal insight into the unique requirements and needs of their cities, states, and regions.

FRG's Responder Technology Group (R-Tech) convenes the FRRG annually to identify, develop, and rank first responder high-priority needs that focus on the needs, shortfalls, and priorities for catastrophic incident response. Similar to the IPT process, the FRRG convenes in subgroups during its meeting to focus on the higher-level needs and priorities identified in a guiding document known as Project Responder. FRRG membership prioritizes the requirements gathered during the breakout sessions and develops statements of objectives that document the technology and operational need of each requirement.

IV. Technical Assessment of DHS Major Acquisition Programs

S&T will play a critical role in helping to assess DHS-wide major acquisition programs. S&T, as the trusted technical advisor for DHS, will provide independent technology assessments and evaluation of major acquisition programs, to reduce risk and inform decision-makers before such acquisitions are made by the Department.

S&T will conduct a technical review at the front end of the acquisition process. S&T will work to understand the Component capability gaps that are being addressed, review the risks, assess the proposed technological solution to ensure that it will appropriately satisfy the requirement, and scan other technologies available to make sure that the proposed acquisition is the best available technology. S&T will not have the authority to stop acquisitions. Instead, it will be S&T's duty to provide an independent technical assessment to the Under Secretary of Management and the Acquisition Review Board so that they can make the best acquisition decisions.