



TESTIMONY

CHILDREN AND FAMILIES
EDUCATION AND THE ARTS
ENERGY AND ENVIRONMENT
HEALTH AND HEALTH CARE
INFRASTRUCTURE AND
TRANSPORTATION
INTERNATIONAL AFFAIRS
LAW AND BUSINESS
NATIONAL SECURITY
POPULATION AND AGING
PUBLIC SAFETY
SCIENCE AND TECHNOLOGY
TERRORISM AND
HOMELAND SECURITY

The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis.

This electronic document was made available from www.rand.org as a public service of the RAND Corporation.

Skip all front matter: [Jump to Page 1](#) ▼

Support RAND

[Browse Reports & Bookstore](#)

[Make a charitable contribution](#)

For More Information

Visit RAND at www.rand.org

Explore [RAND Testimony](#)

View [document details](#)

Testimonies

RAND testimonies record testimony presented by RAND associates to federal, state, or local legislative committees; government-appointed commissions and panels; and private review and oversight bodies.

Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND electronic documents to a non-RAND website is prohibited. RAND electronic documents are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see [RAND Permissions](#).

Strategic Planning for Border Security

Addendum

K. Jack Riley

RAND Office of External Affairs

CT-415/1

September 2014

Document submitted on September 18, 2014 as an addendum to testimony presented before the House Science, Space, and Technology Committee, Subcommittee on Research and Technology and Subcommittee on Oversight on July 31, 2014

This product is part of the RAND Corporation testimony series. RAND testimonies record testimony presented by RAND associates to federal, state, or local legislative committees; government-appointed commissions and panels; and private review and oversight bodies. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. RAND® is a registered trademark.



Published 2014 by the RAND Corporation
1776 Main Street, P.O. Box 2138, Santa Monica, CA 90407-2138
1200 South Hayes Street, Arlington, VA 22202-5050
4570 Fifth Avenue, Suite 600, Pittsburgh, PA 15213-2665
RAND URL: <http://www.rand.org/>
To order RAND documents or to obtain additional information, contact
Distribution Services: Telephone: (310) 451-7002;
Email: order@rand.org

K. Jack Riley¹
The RAND Corporation

Strategic Planning for Border Security
Addendum²

Before the Committee on Science, Space, and Technology
Subcommittee on Research and Technology
Subcommittee on Oversight
United States House of Representatives

September 18, 2014

The subsequent questions and answers found in this document were received from the Committee for additional information following the hearing on July 31, 2014 and were submitted for the record.

Question:

What would it take to fully integrate federal, state and local border security technologies and information in a way that better supports future R&D efforts?

Response:

Border security technologies and information should be integrated into a model or simulation of the border. I think of this modeling effort as something analogous to the war gaming, scenario development, and simulation conducted by the Department of Defense. These simulation efforts are useful for a variety of reasons, including understanding information gaps; combining technologies to pursue policy goals; identifying technology gaps; and exploring how changes in one component or segment of a border may affect other components.

This simulation tool could be created and maintained for relatively modest federal investment. Based on experience in other policy realms, I estimate that an initial investment of less than \$10 million, and an annual investment of approximately \$1.5 million, would be sufficient. That is a relatively small price considering the billions spent on border security.

¹ The opinions and conclusions expressed in this testimony are the author's alone and should not be interpreted as representing those of RAND or any of the sponsors of its research. This product is part of the RAND Corporation testimony series. RAND testimonies record testimony presented by RAND associates to federal, state, or local legislative committees; government-appointed commissions and panels; and private review and oversight bodies. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

² This testimony is available for free download at <http://www.rand.org/pubs/testimonies/CT415z1.html>.

Question:

Is DHS S&T taking advantage of what private industry can offer in R&D to fully integrate the different border security technologies? Has DHS S&T asked private industry to support their R&D efforts for securing northern and southern borders?

Response:

DHS S&T is not taking advantage of what the private sector can offer in one sense: it has not procured assistance to develop an integrated model of the border. There are many firms (including, full disclosure, my own employer, the RAND Corporation) that are free of conflicts of interest and capable of doing this.

With respect to actual security technologies themselves, I am not in a position to assess the sufficiency of DHS's outreach to the private sector. There appears to be no shortage of technology vendors in this area. However, we do not have the ability to judge the effectiveness of their technologies because we lack a framework for assessing their cost-effectiveness.

Question:

Does the U.S. have adequate and effective border security given the current technology in place? What are your biggest concerns about the current technology being implemented at the border? Do you believe there is a way to remedy these problems in a timely fashion? Can you tell us how much of the border is under persistent surveillance at any given moment? How is effectiveness measured? What should our ideal goal be in terms of effectiveness in order to appropriately protect American citizens? What kind of R&D and technology would you want to see utilized in an effective national border control strategy?

Response:

In an ideal policy-making world, we would have information – or a tool – that guides us on how to combine policies and technologies to achieve optimal effects. The fact that we do not have such a tool is, in my estimation, the single largest security gap at the border. Unless or until we invest in understanding the effectiveness of our technologies and policies, we are potentially throwing away taxpayer resources.

Question:

Regarding embassy perimeter security, a senior policy expert from RAND testified in 2012 about long-range communications technology, also called acoustic hailing devices, that can provide a non-lethal capability when used at very high volumes without causing any permanent harm. This communications and access denial technology is being used by the Army in Afghanistan, on ships by the Navy, and by police forces all over the world. What is the potential utility of such technology on the border? Has CBP reviewed or tested acoustic hailing devices in terms of their potential application on the border and if not, are you aware of a specific reason?

Response:

Like many technologies, acoustic hailing has the potential to contribute to border security. However, we cannot say whether acoustic hailing would be more or less effective than other technologies; whether it would best be paired with other technologies or deployed stand-alone; or how much acoustic hailing capacity we would need. We cannot answer these questions because we do not have effective models or simulations available that help us understand the technology and policy tradeoffs at the border.

I do not know if CBP has tested this technology. If the technology has been tested, it would benefit the scientific community and the border security planning and policy communities to make the analysis publicly available.