



**Statement before the House Committee
on Homeland Security**

**Subcommittees on Emergency Preparedness, Response, and
Communications and
Cybersecurity, Infrastructure Protection, and Security
Technologies.**

***“REDUCING THE RISK TO AMERICA:
INTEGRATING THE DEPARTMENT OF
HOMELAND SECURITY’S CBRN EFFORTS”***

A Statement by

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Good afternoon Chairmen McSally and Ratcliff, Ranking Members Richmond and Payne, and distinguished members of the subcommittees. Thank you for the opportunity to testify today. I will be discussing how the Department of Homeland Security can be better organized to defend the United States against chemical, biological, radiological, or nuclear (CBRN) weapons. I am here today under my CSIS affiliation however I am also employed by Crossmatch Technologies, an identity management company, as well as Georgetown University where I teach classes on Homeland Security and Counterterrorism as part of the the Biohazardous Threat Agents and Emerging Infectious Disease Program within the Microbiology and Immunology Department.

The Threat

In the midst of a seemingly perpetual terrorism threat and a time of constrained fiscal resources, the United States government faces difficult questions regarding how to best prepare for national security threats that may be viewed as relatively unlikely or low probability yet could have potentially devastating consequences, specifically the use CBRN weapons on American soil. Though they may require comparatively more time and skill to build or acquire than conventional weapons, the proportional effects of CBRN weapons are significantly greater. The “Amerithrax” attacks of 2001, for example, involved only a small amount of anthrax yet succeeded in paralyzing portions of the U.S. government. And the consequences of a terrorist group detonating a low yield nuclear weapon in a major U.S. city would change America forever. Although the probability of terrorists using simpler means—such as mass shootings—to strike the United States appears much higher, the impact of a successful CBRN attack demands that the nation prioritize and resource this threat.

Terrorist groups continue to pursue CBRN weapons, despite the challenges they face developing these capabilities, at least in part because they can provide these terrorists with a disproportionate level of power, and even prestige, relative to their actual capabilities or standing. For almost twenty years, we have seen Al Qaeda and its affiliates pursue unconventional weapons. Osama bin Laden in 1998 declared that acquiring and using a weapon of mass destruction (WMD)¹ was his Islamic duty. More recently we have seen reports of the Islamic State of Iraq and the Levant (ISIL) seizing chemical weapons facilities and radioactive material in Iraq. Deterrence strategies have no effect against these enemies – If they acquire a WMD then we should expect them to use it.

These types of weapons are game changers for a terrorist group, and we should expect such groups to pursue these capabilities with continued vigor. While thirty years ago, state-level WMD programs were far and away our primary concern, the rapid spread of technology and increasing availability of information on the internet has made the development of such weapons simpler for terrorist groups by further lowering the barriers to development of CBRN capabilities. Further, instability in nations that possess CBRN weapons, such as Syria, Pakistan, and Russia, raises the risk of existing stockpiles falling into dangerous hands. Faced with these threats, the United States has little choice but to work to defend itself against CBRN weapons.

¹ For the purposes of this testimony CBRN and WMD are used interchangeably.

The Challenge

Since 9/11 the United States has developed a robust series of measures intended to counter CBRN weapons at multiple points before they reach U.S. shores. Yet these efforts continue to fall short. The Bipartisan WMD Terrorism Research Center in its 2011 Bio Response Report Card gave the federal government failing grades in its assessment of the nation's ability to respond to a large scale bioterrorism event. This report is only one of many that indicates the federal government writ large has failed to posture itself to adequately detect and disrupt CBRN threats or incidents. And ultimately, regardless of governmental efforts at any level, the possibility always will remain that a device or agent could evade detection or even be manufactured within the United States itself. As such domestic efforts designed to detect and respond to a CBRN incident are a critical component of the nation's security, representing the last and perhaps most vital line of defense against these weapons.

No department has a greater role in this effort than the Department of Homeland Security. While the Department has succeeded in building a number of individual offices, programs, and capabilities designed to detect and respond to CBRN events, its effectiveness continues to be hampered by a variety of challenges. First among these is simple but critical – the fragmented organization and approach through which the department executes its CBRN efforts. Currently responsibility for various elements of CBRN detection and response within the department is spread across no fewer than six separate offices including the Domestic Nuclear Detection Office (DNDO), the Office of Health Affairs (OHA), the Office of Policy, the Office of Operations Coordination, the Science and Technology Directorate, and the National Protection and Programs Directorate (NPPD). This fragmented architecture demands unachievable levels of coordination and cooperation, and makes the implementation of common, department-wide policy and activities unwieldy and difficult. Moreover it runs contrary to the department's program to improve department-wide unity of effort.

While organizational dynamics may seem trivial they are critically important when countering such complex threats as terrorism and CBRN. The National Commission on Terrorist Attacks Upon the United States – the 9/11 Commission – presents a scathing critique of US Government inter-departmental coordination. More recently the 2008 Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism, cited inefficient government organization as a serious problem—with dozens of overlapping offices and officials responsible for addressing CBRN issues.

The challenge of coordinating CBRN detection and response is significant. Not only must federal agencies coordinate across the government but also with state and local governments, who likely will be the first responders in such an event, and with industry and academia, who provide valuable research and development (R&D) and other technical support. Such coordination requires that department and agencies be unified and well-coordinated internally. Without effective internal coordination, departments and agencies cannot expect to succeed with external coordination.

Most departments and agencies, with the exception of DHS, have a streamlined approach to CBRN with a central office that oversees WMD policy and programs. These entities, among others, include the Department of Defense's Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs, the Department of State's Assistant Secretary of State for International Security and Nonproliferation, and the Federal Bureau of Investigation's Weapons of Mass Destruction Directorate. The unity and strength of these elements with their clear assignment of responsibilities and clean lines of communication has enabled these organizations to effectively coordinate internally within their agencies and external with the interagency.

Not only does DHS continue to be the outlier with its fractured approach to CBRN but it also, for unknown reasons, has resisted—or just simply failed to prioritize—efforts to correct the issue. In the Fiscal Year 2013 Homeland Security Appropriations Act the Secretary of Homeland Security was tasked by the Congress to review the department's WMD coordinating mechanisms and provide recommendations by September 1, 2013. Yet the department failed to respond to this request until June 2015—almost two years later.

The benefits to the department for maintaining its current structure seem elusive. DNDO was created in 2005 as a separate, standalone entity to focus government and DHS efforts on the nuclear threat. While the office has succeeded in remaining focused it has struggled to develop strategic guidance and direction and to manage large acquisition programs. The Global Nuclear Detection Architecture -- a framework for detecting, analyzing, and reporting on nuclear and other radioactive materials -- has floundered, and hundreds of millions of dollars have been wasted on radiation detection programs that have fallen well short of expectations, such as the Advanced Spectroscopic Portal (ASP) and the Cargo Advanced Automated Radiography Systems (CAARS).

Recently under the leadership of Director Huban Gowadia DNDO has seen significant improvement. Efforts such as the Securing the Cities initiative -- a program to assist States in establishing capabilities to detect radiological and nuclear materials in major cities -- have flourished, and the organization's morale is the highest in the department.² However, issues still remain, many of which are beyond the control of the director. For example the Directorate of Science and Technology, with a lackluster record of coordinating effectively within the department, maintains its own portfolio of nuclear and radiological R&D programs that arguably should fall under the purview of DNDO. Additionally key nuclear/radiological policy and operations elements reside within other DHS directorates detached from DNDO. While Dr. Gowadia's strong leadership and vision have improved DNDO, the organization's efficacy cannot be dependent upon personality or leadership alone. It must be strong enough not only to stand on its own merit but also to execute its charter both inside and outside of the department.

The other primary CBRN entity within DHS, the Office of Health Affairs (OHA), probably has suffered most from DHS' fragmented approach. The department's chemical and biological defense programs are tucked into the office whose primary responsibility is "health and medical expertise."

² <http://bestplacetowork.org/BPTW/rankings/overall/sub>

The relationship between chemical and biological threats and public health is clear—but they are by no means the same. Having chemical and biological programs as a subset of public health fails to recognize the nature of the threat and the organizational efforts required to address it, which can be seen in OHA’s execution of its programs.

The office’s flagship program, BioWatch, which aims to detect the presence of high-risk biological agents, has been shrouded in controversy since its inception. In 2011 the National Academy of Sciences questioned the effectiveness of the currently deployed Generation Two (Gen-2) system. Last year the department cancelled the acquisition of the next generation biosurveillance technology (Gen-3), which was to replace the fielded Gen-2 systems. The program was moved from OHA back to S&T for further development. The Government Accountability Office (GAO) identified a number of deficiencies with the department’s management of the Gen-3 program noting that the department failed to conduct sound mission needs analysis and to follow good acquisition processes. In total, the department has spent over one billion dollars on BioWatch and has at best provided questionable results. Over \$150 million was spent on the Gen-3 technology alone before it was cancelled.

The department’s chemical defense efforts are similarly lackluster. They are severely fragmented and generally ineffective at least in part because the issue is worked in various, small offices spread throughout the department. While OHA retains the overarching responsibility, these other offices own key aspects of the chemical defense portfolio. The Chemical Facility Anti-Terrorism Standards program, which regulates high-risk chemical facilities, is managed by NPPD. And the Chemical Security Analysis Center (CSAC), which assesses chemical threats and vulnerabilities, is led by the S&T office. With a variety of disparate chemical programs spread throughout component agencies, OHA’s chemical defense charter is seemingly unmanageable.

DHS’ fractured approach to CBRN has resulted in inefficient operations, insufficient accountability, and wasted taxpayer dollars, ultimately increasing the risk to the American homeland. Fortunately, many of these shortcomings can be addressed simply by reorganizing and elevating the department’s CBRN efforts into single, consolidated entity. Such an approach will make it possible for the department to have a focused CBRN detection and response capability with clear roles and responsibilities in order to improve reaction times and accountability, and eliminate redundancy and inefficiencies.

The Solution

The department and Congress must act now to address these shortcomings by unifying and elevating DHS’ CBRN capabilities into one departmental entity. Specifically DNDO and OHA should be merged along with the CBRN policy and operations capabilities and the NPPD Office of Bombing Prevention. The new office should be headed by an Assistant Secretary who reports directly to the Secretary of Homeland Security. The department also should align R&D programs under this new office. Given that CBRN detection and response is inherently a technology-intensive venture, there are numerous challenges associated developing and acquiring the needed technologies. The decentralized nature of CBRN efforts within DHS has led to an equally

decentralized system to develop associated technologies, which has contributed to many of the deficiencies in DHS CBRN R&D and acquisition programs. To increase both the tactical and strategic integration of the CBRN detection and response, the new consolidated enterprise must focus on both policy and technology. As such, CBRN R&D efforts within DHS also should be unified under this centralized office.

The consolidated office also would be able to provide a holistic approach to the department's WMD programs and eliminate duplication of efforts. With responsibility and visibility into the department's entire range of CBRN efforts from policy to technology to operations the merged entity would ensure continuity and effective prioritization of this highly complex threat. Moreover the experiences of the department's entire WMD expertise could be leverage on a routine and daily basis. The new entity would have the clear charter for establishing and articulating the department's CBRN priorities and strategies to both internal and external audiences. Perhaps most importantly the Assistant Secretary would be solely responsible and accountable for all CBRN acquisition programs allowing for a more streamlined and agile approach that is directly connected to both policy-makers and operators.

In addition to raising the profile and priority of CBRN in the department, and consolidating capabilities and eliminating overlap, the new entity would enhance external coordination by providing a primary entry point for outside agencies and entities seeking to coordinate on CBRN issues with DHS. In today's security environment there are very few single agency threats and there are even fewer single agency solutions. This is especially true with CBRN where coordination between federal, state/local, academia, and the private sector is an absolute necessity. Under the current DHS structure it is uncertain as to who in the department has the lead for CBRN efforts and at what moment in the process.

Interagency or inter-departmental coordination is critical when dealing with complex transnational threats such as CBRN. In interagency meetings, including at the National Security Council level, each department normally gets a single seat at the table. Individuals that are knowledgeable in a broad range of topics, yet still technically conversant, often prove to be the most effective participants in these policy discussions. Regarding CBRN, departments must have a cadre of individuals who can speak with one voice on the whole of the issues. With DHS' expertise currently stove-piped into disparate parts of the organization, they lack a robust group of individuals that has the responsibility and authority to speak to the whole of their efforts against CBRN threats.

The consolidated entity also would serve as the home base for all DHS CBRN personnel allowing them to benefit from each other's background and experience not only in technology but also in management and acquisition programs. A larger, consolidated cadre of talent also would provide DHS CBRN professionals with greater career opportunities and positions for growth. By raising the profile of CBRN within the department and the interagency, and leveraging the recent leadership efforts in DNDO that have resulted in such high morale, DHS CBRN could become one of the most sought after places to work for WMD professionals. Instead of internal components competing against one another for prioritization and resources they could be working together for

mutual and greater benefit.

Conclusion

DNDO and OHA have struggled with effectively communicating and facilitating a common understanding of the department's CBRN efforts and have ineffectively managed major CBRN acquisitions. The idea of consolidating DHS WMD efforts has long been discussed, and now is the time for action. We as a nation have no excuse for not making this change as it will only improve the department's ability to defend against the WMD threat while eliminating redundancies and inefficiencies. The current model is also inconsistent with the department's unity of effort initiatives. There is simply no reason to maintain the current structure. Ultimately, there is no consolidated, single architecture that would perfectly address the multitude of challenges associated with CBRN detection and response. However, the various offices, programs, and capabilities currently spread across the department can and should be integrated. Through integration, there exists an opportunity to forge a more efficient and effective CBRN detection and response enterprise and strengthen our nation's security against these devastating weapons.