

# Statement of The Honorable John H. Marburger, III

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Before the Committee on Science

## United States House of Representatives

**Science of Bioterrorism: Is the Federal Government Prepared?**

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### Introduction

Good morning Mr. Chairman and Members of the Committee. It is a pleasure to be here today at my first hearing before the House Science Committee. Your hearing focuses on an issue of critical importance – the science of bioterrorism. The federal government has been addressing bioterrorism issues for years, but the hideous terrorist attacks on September 11 have infused a sense of urgency in this work. Harnessing the nation's collective S&T expertise is critical for long-term success in the war on terrorism.

The federal budget for bioterrorism R&D has been close to \$400 million over the past couple of years. The agencies most heavily involved in this research are DoD, HHS, DoE, and the Department of Agriculture. In addition, there is basic research at NSF that contributes to the effort.

Those of us engaged in the federal response to the terrorist attacks have been impressed by the avalanche of offers to assist from Americans who want to help in any way they can. During my brief tenure as Director of OSTP, I have endeavored to grasp the scope of this volunteered assistance, and to shape a federal interface to mobilize it effectively in support of the nation's war against terrorism. To this end, I have been meeting with industry associations, non-profit groups, umbrella organizations for universities and scientific societies, and the National Academies. OSTP has established well-defined relationships with these entities to receive input from and provide guidance to their own antiterrorism projects and initiatives. At the same time, OSTP has exercised its congressional and executive mandates to

coordinate activities within the federal agencies relevant to terrorism issues. OSTP is consequently in a position to call on organizations external and internal to the federal government as we provide technical support to the Office of Homeland Security, and other offices responsible for different aspects of the war against terrorism. I would like to describe specific examples of this activity.

## **OSTP's Role in the Weapons of Mass Destruction R&D Subgroup**

Under this Administration, the National Security Council established a Policy Coordinating Committee (PCC) on Preparedness against Weapons of Mass Destruction. This PCC has an R&D Subgroup that OSTP chairs. 16 agencies are represented on this R&D Subgroup including: DoD, DoC, DoE, HHS, DoJ, State, Agriculture, Treasury, DoT, EPA, NSF, the National Security Council, the Intelligence Community, and OMB.

Although the issue areas of the Weapons of Mass Destruction PCC include chemical, biological, radiological, and nuclear threats, the R&D subgroup focuses its work primarily on biological and chemical threats. Earlier this year, the R&D Subgroup reviewed a list of R&D objectives arrayed in broad categories. The categories relevant to bioterrorism included: personal protection; collective protection; detection and measurement of bio agents; recognition and characterization of covert biological weapon exposure; decontamination; vaccines and therapeutics; psychological effects; information systems, modeling simulation, and analysis; and device disablement. We identified over 100 different specific R&D objectives in these categories. This provided a framework for analyzing and assessing the program.

Some of this analysis went into the July 2001, Annual Report to Congress on Combating Terrorism, that was produced by OMB. That report followed the Subgroup's categories, gave examples of R&D in various areas, and provided a general discussion of priority areas. OSTP and the Subgroup also gave advice to OMB in the "crosscut process" on antiterrorism.

The R&D Subgroup also initiated briefings from agencies on their bioterrorism-related R&D programs and on specific projects, ranging from intelligence assessments of threats to possible uses of DoT's planned Intelligent Highway System for detecting and tracking threats. Such activities at the working level are an important method of making certain that agencies are aware of each other's work.

## **Projects Tasked to RAND Corporation**

In the summer of 2001, OSTP initiated discussions with the RAND corporation on the possibility of using their RaDiUS database to identify programs contributing to each of the R&D Subgroup's specific objectives. A test case was run on personal protection and the full search is now beginning and will be carried out with input from OMB.

When President Bush introduced the powerful concept of a War Against Terrorism, my first thought was how a map for such a war would differ from a conventional battle map. Conventional wars are fought for territory, easily measured on a chart with latitude and longitude, but the fronts in the war against terrorism cover multiple dimensions. How can we detect an unprotected flank in this complex territory? How do we measure progress? We need a taxonomy and a common language to assess threats, avoid duplication, and facilitate interagency cooperation and coordination. Developing a useful taxonomy is a deep problem, and I have sought assistance from the National Academies, which have established a committee to help with this and other terrorism issues.

I have also asked RAND to address this task. They began by polling the agencies on current antiterrorism R&D, starting with a simple spreadsheet on which the agencies identify their activities in broad categories. RAND will work with OSTP to make sure the level of detail is uniform and appropriate to each specific category. RAND is also coordinating its efforts with the National Academy committee. The ultimate goal of these projects is to identify gaps, duplication, and opportunities for collaboration.

## **Examples of Interagency Coordination**

In October I called a meeting of chief science officials from more than 15 agencies to discuss the role of science and technology in combating terrorism. Several representative agencies made presentations on their current antiterrorism-related activities, and all were asked for additional input to follow up the meeting. I convened a second meeting of this group in November to discuss the RAND project and the formation of a new antiterrorism task force under the National Science and Technology Council. These meetings gave science officials from various agencies an opportunity to interact and discuss areas of potential cooperation. It also provided a database of contacts that could be immediately contacted when necessary. Representation by other offices in the White House in these and other terrorism-related meetings varies but generally includes: OMB, Office of Homeland Security, Domestic Policy Council, Office of the Vice President, and Cabinet Affairs.

*Mail Security* – The need for such coordination actually arose the following week when Governor Ridge called me to ask that OSTP provide technical support for the treatment of US mail potentially contaminated by *Bacillus anthracis*. The day after his phone call I convened an interagency meeting with chief science officials and the U.S. Postal Service to ascertain the technical issues that the Postal Service was encountering. This led to formation of an interagency technical team that within days began evaluating the irradiation facilities at Lima, Ohio, and Bridgeport, New Jersey. The key point is that when the request came to OSTP, we were able to assemble an interagency team quickly and formulate a plan of attack that has worked.

*Baggage Inspection at Airports* – The Office of Homeland Security has also asked OSTP to

review the technology available for screening baggage at airports. We made use of the PWMD R&D subgroup to get suggestions of technologies not currently in use for airport baggage screening that might be deployed within a year. Last week OSTP was briefed on some of the candidates, including x-ray backscatter, neutron activation, acoustic frequency-swept interrogation, and radiometry. The purpose is not to replace the FAA's process for introducing new technologies, but rather to ensure that good candidates are considered rapidly. I would note that FAA is itself vigorously pursuing the issue and just last week held a conference devoted to potential new technologies.

## **Future Structure of Interagency Coordination on Biological and Chemical R&D**

Beyond these specific examples of responsiveness to Homeland Security technical needs, OSTP has been asked to fulfill the research and development component of OHS for the time being. We have been focusing most of our energies on short-term issues such as mail security, baggage screening, and civilian preparedness. But we are also taking steps to identify long-term S&T opportunities that will help the United States win the war against terrorism.

Under the structure of the National Science and Technology Council, I am establishing an interagency Antiterrorism Task Force with several working groups to address broad categories of issues. The four categorical working groups focus on Biological/Chemical Detection and Response; Radiological/Nuclear/Conventional Detection and Response; Protection of Vulnerable Systems; and Social, Behavioral, and Education Sciences. We are establishing the Technical Response Team as a fifth working group. This action-oriented team will establish small subgroups on an ad hoc basis to grapple with emergencies as they arise. The team will also serve as a clearinghouse for technical reviews of the many incoming proposals on technologies related to homeland security. It is important that these proposals be assessed for scientific merit and referred, as necessary, to the appropriate agency for further review.

The Biological/Chemical Detection and Response working group will include most of the participants in the Weapons of Mass Destruction R&D Subgroup. The Subgroup has continued to meet informally in the interim and I expect a seamless transition to the new working group.

## **Conclusion**

Although I have been in office for little over a month, OSTP's role in coordinating various S&T activities related to antiterrorism has been significant. An overarching goal for all of the initiatives I have described is coordination of the activities of all those who can contribute to the war against terrorism. We will draw upon the technical expertise housed in our science and technology agencies, making sure that relevant information and test results are disseminated to the appropriate parties, preventing unproductive duplication of effort, and identifying opportunities for collaboration. We also

will be working closely with the Office of Homeland Security, OMB, and other offices in the Executive Office of the President, both to make certain they are aware of technology developments and needs and to help with their technical issues and questions.