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ON

NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2017

AND

OVERSIGHT OF PREVIOUSLY AUTHORIZED PROGRAMS

BEFORE THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES
ONE HUNDRED FOURTEENTH CONGRESS

SECOND SESSION

SUBCOMMITTEE ON EMERGING THREATS AND CAPABILITIES HEARING

ON

DEPARTMENT OF DEFENSE COUNTERING WEAPONS OF MASS DESTRUCTION POLICY AND PROGRAMS FOR FISCAL YEAR 2017

HEARING HELD
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DEPARTMENT OF DEFENSE COUNTERING WEAPONS OF MASS DESTRUCTION POLICY AND PROGRAMS FOR FISCAL YEAR 2017

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ARMED SERVICES,
SUBCOMMITTEE ON EMERGING THREATS AND CAPABILITIES,
Washington, DC, Wednesday, February 10, 2016.

The subcommittee met, pursuant to call, at 3:36 p.m., in room 2212, Rayburn House Office Building, Hon. Joe Wilson (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. JOE WILSON, A REPRESENTATIVE FROM SOUTH CAROLINA, CHAIRMAN, SUBCOMMITTEE ON EMERGING THREATS AND CAPABILITIES

Mr. WILSON. I call this hearing of the Emerging Threats and Capabilities Subcommittee of the House Armed Services Committee to order.

I am pleased to welcome everyone here today for this very important and timely hearing on the Department of Defense, DOD, countering weapons of mass destruction, CWMD, policy and programs for the fiscal year 2017.

The proliferation and potential use of weapons of mass destruction remains a grave and enduring threat. Adversaries of the United States continue to pursue weapons of mass destruction in an attempt to enhance their international influence and threaten the American people both at home and abroad.

Recent media reports on the use of these weapons are widespread. They include news of Daesh's † use of chemical weapons in Iraq and Syria, revolutionary advances in biotechnology, and the continued nuclear weapon development of North Korea. These reports highlight the diverse and continued threats posed by weapons of mass destruction to the United States and our allies.

The entire Department of Defense countering weapons of mass destruction enterprise is critical in preventing, protecting against, and responding to the weapons of mass destruction threats. While the Department of Defense has made many important contributions to national security over the last year, there are challenges to the countering weapons of mass destruction enterprise that still must be addressed.

The inadvertent shipment of inactivated anthrax from the Dugway Proving Ground to 194 laboratories in all 50 States, the District of Columbia, 3 territories, and 9 foreign countries, has exposed scientific, institutional, and workforce problems that need to be addressed to prevent this from ever happening again.

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† "Daesh" is an Arabic acronym for Islamic State of Iraq and the Levant, ISIL.

We also remain increasingly concerned about the proliferation of dual-use technologies that could potentially be used for WMD development activities. These dual-use technologies could make threats much more readily available to terrorist groups or even lone actors, domestically as well as abroad.

So today we look forward to discussing the priorities for the Department of Defense to counter these evolving weapons of mass destruction threats for fiscal year 2017.

We have before us a panel of three distinguished witnesses: Dr. Arthur Hopkins, performing the duties of the Assistant Secretary of Defense for Nuclear, Chemical and Biological Defense Programs; Mr. Kenneth Myers, Director of the Defense Threat Reduction Agency [DRTA] and U.S. Strategic Command Center for Combating Weapons of Mass Destruction; and Dr. Wendin Smith, Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction.

I would like to take this opportunity to recognize the outstanding service of Director Ken Myers, who will be moving on from the Defense Threat Reduction Agency next month. During his leadership as the longest-serving director in the history of the organization, the agency has expanded international operations, increased research and development cooperation, and transformed into a whole-of-government resource. Ken's contributions have been critical in safeguarding our Nation and our allies and we wish him best of luck in future endeavors.

I would now like to turn to my friend and the ranking member, Congressman Jim Langevin of Rhode Island, for any comments he would like to make.

[The prepared statement of Mr. Wilson can be found in the Appendix on page 27.]

STATEMENT OF HON. JAMES R. LANGEVIN, A REPRESENTATIVE FROM RHODE ISLAND, RANKING MEMBER, SUBCOMMITTEE ON EMERGING THREATS AND CAPABILITIES

Mr. LANGEVIN. Well, thank you, Mr. Chairman.

And I want to thank, thank you to all our witnesses for appearing before the subcommittee today to provide testimony on the fiscal year 2017 budget request for countering weapons of mass destruction and associated programs and policies.

As we know, many state and non-state actors seek to develop, proliferate, acquire, or use weapons of mass destruction against our service members, allies, and innocent civilians overseas and here in the homeland.

In late 2015, our subcommittee received a briefing from the intelligence community detailing the myriad WMD threats and associated actors. While I cannot go into details of that in this briefing, one needs to look no further than today's headlines outlining ISIL's aspirations to acquire and use chemical weapons, North Korea's provocative actions, and global impact of the Zika virus to understand how real chemical, biological, radiological, and nuclear threats are and how widespread their impact can be.

Technological advancements often work in our favor, but they also work in our adversaries' favor. Today's hearing will provide insight on how we are investing in science and technology to provide

better capabilities to our warfighter and shaping our approach to this threat.

I support a robust S&T [science and technology] investment in the chem/bio defense programs and hope to learn today why that budget request has been decreased by approximately $30 million compared to last year, while other S&T budgets in the Department have increased substantially.

Equally important is reducing redundancy and achieving efficacy. For instance, a WMD situation awareness tool called Constellation is being prototyped, yet it remains unclear exactly how this program differs from others being used today and in development.

Last week, the subcommittee heard from the Blue Ribbon Panel on their biodefense report. I found many of the findings and recommendations thought-provoking and look forward to hearing the Department's feedback. I would like to note, however, that many of the recommendations can and should also be applied to the chemical, nuclear, and radiological enterprise as well.

I have long been an advocate also for cybersecurity. I believe that cybersecurity must be a key component of all strategies and was pleased to see that the panel included recommendations pertaining to the management of cyber threats to pathogen and biological information. Again, I would stress this recommendation should be applied across the enterprise.

With respect to the Department's inadvertent shipment of anthrax, I expect to learn more about the scientific, institutional, and cultural changes being implemented within the Department as a result of the lessons that we have learned from this serious incident.

Finally, although the authority is not just overseen by this subcommittee, I wanted to close by expressing support for the cooperative threat reduction program. Biological agents, once released, know no boundaries. ISIL has freedom of movement across large swaths of the Middle East, near our allies like Jordan and near where our troops are stationed.

Improving our foreign partners' capability to secure and dispose of WMD materials is in the best interests of our troops, our allies, innocent civilians, and ultimately the homeland.

The witnesses' testimony provides examples of the contributions to national security that have been made under this program. And I look forward to hearing more.

There is no one more familiar with this authority than Director Myers.

And like the chairman I want to congratulate you on all your accomplishments and on your new endeavors.

He has led the Defense Threat Reduction Agency through extraordinary times, during which we have seen the destruction of serious chemical weapons aboard a ship, among other milestones.

And Director Myers, let me say that you will certainly be missed. I also say that I have had the opportunity to have you testify before both this subcommittee, as well as the Intelligence Committee, as well as the Homeland Security Committee, and your contributions have always been well received and insightful. So, with that, I thank you for your service.

And with that, Mr. Chairman, I want to thank our panel for appearing before us today, and thank you for all the work you that do to protect our Nation, our partners, and our service members. Thank you very much.

And with that, I yield back.

Mr. WILSON. Thank you, Ranking Member Langevin.

And our format today, each of you, we look forward to your testimony. When that concludes, we will begin rounds of questioning at 5 minutes each, strictly enforced by Jackie Sutton. And then remarkably enough we might even have time and what you are dealing with is so important to all of us that we could actually have a second round.

And so we will begin with Dr. Hopkins.

STATEMENT OF DR. ARTHUR T. HOPKINS, PERFORMING THE DUTIES OF THE ASSISTANT SECRETARY OF DEFENSE FOR NUCLEAR, CHEMICAL AND BIOLOGICAL DEFENSE PROGRAMS

Dr. HOPKINS. Chairman Wilson, Ranking Member Langevin, and distinguished members of the subcommittee, I appreciate this opportunity to testify on the Department's efforts to counter the threats posed by weapons of mass destruction, and to provide context for the President's fiscal year 2017 budget request.

Our budget request includes resources to reduce threats and protect warfighters in several areas. The chemical and biological defense program budget request will continue the development of capabilities to protect against chemical, biological, and radiological threats.

Our chemical demilitarization program will continue to ensure the safe, complete, and treaty-compliant destruction of the United States' chemical weapon stockpile.

Our nuclear matters resources will support the development of policies that guide the safety and security of the Nation's nuclear deterrent and help to counter threats of nuclear terrorism and proliferation.

The Defense Threat Reduction Agency budget request includes resources to address the full spectrum of WMD-related threats, including cooperative threat reduction programs, and support to combatant commands.

Finally, our countering weapons of mass destruction systems program will enhance situational awareness of WMD activities globally.

The chemical and biological defense program includes research, development, testing, and fielding of medical countermeasures, that is advanced vaccines and therapeutic drugs. It includes advanced diagnostics, environmental detection, protective equipment, and hazard mitigation capabilities.

In domestic chemical demilitarization, the Department continues to make significant progress in meeting the Nation's commitments under the Chemical Weapons Convention by eliminating our remaining chemical weapons stockpiles in Colorado and Kentucky. In March 2015, the Department started agent destruction operations at the Pueblo, Colorado, site. At Bluegrass, Kentucky, facility construction is complete and destruction systems are being tested.

With respect to nuclear threats, the Department works with other departments and agencies to strengthen the Nation's capability to detect and respond to nuclear proliferation. The Cooperative Threat Reduction's [CTR] global nuclear security program establishes and maintains nuclear security cooperation with several countries.

With respect to this Nation's nuclear stockpile, the Domestic Nuclear Weapons Accident Incident Exercise program continues as the premier interagency training event. It enhances the whole-of-government ability to maintain the security of our nuclear weapons.

The Department's Cooperative Threat Reduction program and capacity-building efforts help to identify potential threats globally and they enable early actions that will prevent or mitigate them. The CTR program's effectiveness was most recently highlighted by its contribution to the timeline confirmation of the first resurgent case of Ebola.

The Department maintains strong relationships with allied nations to help reduce biological threats.

The countering weapons of mass destruction systems portfolio is leading the development of situational awareness information system called Constellation. That system will enable the consolidation, the analysis, and the sharing of timely and relevant information.

Constellation is being developed by Defense Threat Reduction Agency with support from Defense Intelligence Agency [DIA]. It will support analysis, planning, and decision-making by the combatant commands and their interagency and international partners. Our 2017 budget request includes resources to take Constellation from development to an operational prototype.

The Department's countering WMD activities support a broad spectrum of activities that help reduce threats from weapons of mass destruction. We strengthen program effectiveness and ensure efficiencies by acting in collaboration and coordination with numerous interagency and international partners.

The President's 2017 budget request will enable us to continue to perform that mission effectively.

Thank you again for this opportunity to testify today.

[The prepared statement of Dr. Hopkins can be found in the Appendix on page 29.]

Mr. WILSON. Thank you very much, Dr. Hopkins.

We now proceed with Mr. Myers.

STATEMENT OF KENNETH A. MYERS, DIRECTOR, DEFENSE THREAT REDUCTION AGENCY AND U.S. STRATEGIC COMMAND CENTER FOR COMBATING WEAPONS OF MASS DESTRUCTION

Mr. MYERS. Chairman Wilson, Ranking Member Langevin, and members of the subcommittee, it is an honor to be here today to share with you the work we do to make the world safer by countering the threats posed by the proliferation and use of weapons of mass destruction.

The Defense Threat Reduction Agency is a unique place with a broad portfolio. In fact, the vast majority of the activities that my colleagues beside me will discuss today are carried out by DTRA. We have a rich history. Our roots go back to the Manhattan Project

where we provided expertise of analyzing weapons' effects, work that we still do today.

DTRA was created because of the existential threat posed by weapons of mass destruction. The consequences of a major attack on our country are almost unimaginable with potentially devastating impact. Those who wish to harm us understand that the use of such weapons could result in immense loss of life and enduring economic, political, and social damage on a global scale.

As a defense agency, DTRA reports to Under Secretary Frank Kendall in providing research and development and capabilities. As a combat support agency, DTRA is under the control of the Chairman of the Joint Chiefs and provides direct support to combatant commanders and the services.

Our expertise spans the full WMD threat spectrum: chemical, biological, radiological, nuclear [CBRN] weapons, and high-yield explosives. We are a one-stop shop, open 24 hours a day to support the warfighter and the rest of the interagency. We are the only U.S. Government entity with this type of unique concentration and this critical mission area.

Terrorists have clearly demonstrated that they will use any weapons or materials at their disposal. And for them, no targets are off limits. In addition, WMD-related events are occurring more often and in real time. While not an attack, the most recent example of this was the Ebola outbreak. The panic caused by Ebola was not just felt in Africa. The outbreak raised legitimate concerns all over the world.

In the United States, there was a nonstop news cycle persisting for months and genuine fear in our communities. And the United States only had four confirmed cases. Now, just imagine if the outbreak hadn't been controlled or if we had been dealing with a new, genetically modified biothreat.

Nearly every year, we face a new WMD-related crisis: Fukushima, Libya, Syria, Ebola. We cannot easily plan or budget for these types of situations. This requires us to surge our efforts and reprioritize resources. Thankfully, the unique authorities and funding that Congress provides to us each year allows us to respond to these challenges.

Thank you for the opportunity to be here, and I look forward to your questions.

[The prepared statement of Mr. Myers can be found in the Appendix on page 36.]

Mr. WILSON. Thank you very much, Director Myers.

We now proceed to Dr. Smith.

STATEMENT OF DR. WENDIN D. SMITH, DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR COUNTERING WEAPONS OF MASS DESTRUCTION

Dr. SMITH. Chairman Wilson, Ranking Member Langevin, members of the subcommittee, thank you for the invitation to testify today. I am honored to be here with Dr. Hopkins and Director Myers to present the Department's approach.

In line with our 2014 strategy for countering WMD, my office develops policy and guidance, supports and coordinates interagency initiatives, and contributes to international efforts focused on the

three pillars of that strategy: The first is preventing acquisition of WMD; second, containing and reducing those threats; and third, maintaining our capabilities to respond. Underpinning each of those is a constant cycle of preparation.

Today's complex security environment has made countering WMD threats ever more challenging and multidimensional. We face threats from state and, increasingly, non-state actors, who have access to knowledge and emerging technologies. It is critical to prepare for these emerging challenges, including WMD threats that evolve from advances in some of those areas, such as synthetics, cyber tools, unmanned systems, and additive manufacturing. We must continually exercise flexibility and creativity in our approaches.

Ensuring that those who do not currently have WMD capabilities do not obtain them is a key component of our counter-WMD effort. As we have heard today, based on available information we believe that the Islamic State of Iraq and the Levant was responsible for some of the alleged attacks using sulfur mustard in the past year.

We have been working proactively with our allies and partners to deny ISIL or its affiliates and other non-state actors with access to any of these CBRN materials. The international coalition combating ISIL will consider all elements of power to pursue those who use any of these CBRN capabilities.

We also work with our allies and partners to strengthen the security of materials that are at risk of theft or diversion. And through the CTR, Cooperative Threat Reduction program, we have had a decades-long track record of working successfully with foreign partners to destroy WMD, to make those materials more difficult to acquire, and to detect and interdict dangerous components and materials.

In line with our strategy, CTR has evolved from a focus on, initially, efforts in the former Soviet Union to now a response from this emerging threat environment.

We also work closely with our partners in the Department of State to support international regimes, such as the Nonproliferation Treaty, the Biological Weapons and Toxins Convention, the Chemical Weapons Convention and, clearly, the Proliferation Security Initiative now in its 13th year.

So despite our best efforts to prevent actors from obtaining WMD, we must nevertheless contend too often with reducing and containing those threats. Here we look often to CTR which, again, has had great successes in working with partners. Some examples in the past year, Ukraine, Jordan, Lebanon, and other important areas.

Also consistent with our strategy, we assist partners in proactively confronting emerging threats in regions that are also of emerging concern. One of those is North Africa. In response to the use of chemicals as weapons in both Iraq and Syria, coupled with growing encroachment of extremist groups, we have initiated proliferation prevention programs in cooperation with the Government of Tunisia and plan to implement a border surveillance system along its most vulnerable areas in fiscal year 2017.

Ultimately, it is not enough to prevent, reduce, and contain the WMD, we also must be prepared to respond. We will, therefore,

continue to work with our partners, both internationally and domestically, to manage and respond to threats from North Korea and will remain vigilant in supporting interagency efforts to monitor and prevent Iran from acquiring WMD material.

Complementing these efforts is the CBRN Preparedness Program, or CP2 program, which works with partner nations to respond to and mitigate the effects of a CBRN incident.

In fiscal year 2015, the DOD program provided response training and equipment to civilian and military first responders in a number of countries. And as we look forward to the next year, we will continue to improve WMD preparedness and response capabilities of key partners whom we identify collaboratively with the combatant commanders and the Department of State.

So despite the progress I have described here, we can't be complacent. We continue to adapt and respond to those static and emerging threats. And we must continue to anticipate those threats, again, from both state and non-state actors.

So as we move forward, your continued support for and funding in these areas will be critical to our ability, and we appreciate your support. Thank you.

[The prepared statement of Dr. Smith can be found in the Appendix on page 54.]

Mr. WILSON. Thank you very much, Dr. Smith.

We now will proceed to have a round of questions, beginning with myself.

And Mr. Myers, later this year the Joint Improvised-Threat Defeat Agency [JIDA] will transition under the authority, direction, and control of the Defense Threat Reduction Agency. Can you provide an update on the status of this transition plan? How do you plan to maintain the important expertise in counter-improvised explosive devices through the transition?

Mr. MYERS. Well, thank you, Mr. Chairman. Yes, as you explained, the Joint Improvised-Threat Destruction Agency will move in and come in under the Defense Threat Reduction Agency.

Lieutenant General Michael Shields is the director of JIDA at this time. He and I have been working very carefully and closely together. We have very specific orders and instructions from Under Secretary Kendall, and that is to ensure that the counter-WMD space and the counter-improvised threat reduction space continue to succeed at the rate they have been succeeding in the past.

In other words, he expects both to take full advantage of the benefits and the potential coordination and complementary nature of some of the aspects of the two mission areas. He expects us to be advancing both of these missions.

Right now, we are looking very carefully at opportunities where the two organizations might come together and integrate. But we are taking a very slow process. We want to make sure that each step we take is complementary to both mission areas.

There may be areas that cannot be brought in together, and we want to make sure that those areas are preserved to ensure that the warfighter continues to receive the outstanding service in both the counter-WMD, as well as the counter-improvised-threat device arena.

And we are confident with the process that we have in place we will reach such a place.

Mr. WILSON. And I want to thank you. Actually, personally, my oldest son conducted cross-country convoys in Iraq. And so, I know firsthand how important your efforts have been.

Dr. Smith, there has been a lot of discussion about the fact that biotechnology is widely proliferated now, which could make biothreats much more readily available to terrorist groups or even lone actors domestically, as well as abroad. And I am particularly concerned with the occupation for almost 2 years now of such a large city as Mosul with a million people, that there are laboratories that could be easily used to create weapons of mass destruction. How does this change of strategy affect our ability to protect the American people from biothreats?

Dr. SMITH. Thank you for the question, and an excellent one. Clearly, our strategy, which I referred to at the beginning of my remarks, is designed to account, again, for both state and non-state actors, any lone actor ideally in that mix as well, although it gets much harder at that end of the spectrum.

So again, we foremost focus on preventing acquisition from the start. So, in the case of these international partners where our efforts focus, that is the most important step is preventing the acquisition at the beginning of either the materials or the know-how.

So both being aware of where those capabilities exist and then having collaborative partnerships with entities within those countries that are cooperative through our CTR programs is critical. And again, anticipating that that may not always succeed, particularly in these cases of a non-state actor, we have to be better prepared than to contain and then respond to a threat should it exist.

So, that is where, again, the programs we have support the detection, surveillance, information sharing, active engagement with our partners in countries such that we can better be aware of an evolving threat.

But it is certainly, as I made in my opening remarks, a mounting challenge. The spread of technology and the accessibility of that technology, and thus no longer even, to use your example of Mosul, the need for a specific site, but the ability to acquire that knowledge anywhere is a mounting challenge.

Mr. WILSON. And I appreciate you referenced efforts to deny Iran the ability to secure weapons of mass destruction. But how is that going to be achieved with the financial resources that they have now? I am just very concerned.

Dr. SMITH. So, the agreement that we have in place is certainly the most robust, peacefully negotiated agreement we have ever had specific to their nuclear program. What that does give us is the ability to engage with Iran, which is important. And again, I think goes to the initial prevention side of our strategy, which is to prevent any nation or any actor from acquiring WMDs.

So the transparency and engagement that we will now have should be helpful. But it certainly will require vigilance continued from our intelligence community, all of our partners in the region, and certainly the Department of Defense as well.

Mr. WILSON. Well, I am concerned is they have continued with intercontinental ballistic missile development, that they are just simply not trustworthy.

Mr. Langevin.

Mr. LANGEVIN. Thank you, Mr. Chairman.

And again, I want to thank our witnesses for the testimony today.

As I mentioned in my opening statement, I would like to hear more about the scientific, the institutional, and the cultural changes that the DOD is developing and implementing in response to the inadvertent anthrax shipments.

Could you speak more to these changes and the lessons learned here?

Dr. HOPKINS. Thank you very much. I would be glad to start to address that.

First of all, let me say that the anthrax incident is something that shouldn't have happened and it is something that we have to make sure never happens again. And in order to do that, we do have to make those changes you just talked about.

Starting with the technical side of things, it has been the findings of at least two investigations now that what was needed was a stronger scientific basis underpinning the inactivation protocols for anthrax. And in fact, we have put into effect now research studies that will add that scientific rigor to understand what it takes to inactivate the anthrax spore.

The second part of the technical, again there were several technical pieces to this, but the second most important part of the technical investigation had to do with the detection of viability. Because it is one thing to inactivate the spore, you also have to be able to confirm that these spores have been inactivated.

And so, the viability testing protocols are another part of the research that we have put into effect in the chemical/biological defense program. And those will be applied only after they have been internally reviewed and externally reviewed by an independent scientific committee so that we can make sure they have the technical integrity that will enable that kind of research to continue.

Institutionally, the Army's Biosafety Task Force was not able to identify a specific person who was responsible for a specific action that caused the anthrax incident. However, they did uncover a number of cultural issues that really do need to be addressed, starting with what they characterized as complacency among the scientific and the managerial staff.

In other words, there were indications that there were issues with the science and the staff was accused of being relatively complacent by not more aggressively addressing those things, those things that were uncovered.

And so, I think that a combination of replacing some of the technical members, replacing the managerial members, some, as well as instituting a culture of accountability and technical integrity will go a long way. And I think it is our responsibility to help make sure that those are actually accomplished.

Organizationally, the United States Army has stepped up and they have been identified, they have been tagged as the executive

agent for biosecurity in the Department. And that responsibility is going to fall under the Surgeon General of the Army.

And so, things are being reorganized such that the direct oversight of biological safety in the laboratories will be overseen by the Office of the Surgeon General.

Mr. LANGEVIN. Very good. Those are positive changes in the right direction, and I hope they will continue as such because this is too serious an issue not to do that.

Also, as I mentioned in my opening statement, I support the Blue Ribbon Panel's recommendations on strengthening cybersecurity on systems with biological pathogen information. What is the Department's thought on this issue? And what steps is the Department taking to secure its systems?

Mr. MYERS. Thank you, Congressman. I had the opportunity to watch the hearing that our former colleague Gerry Parker appeared at. And I have to be honest, I agreed with much of what Gerry had to say.

This recommendation in particular is obviously one that we are taking very, very seriously. It is one the Department has taken seriously overall, even beyond the chem/bio defense program in an extremely serious manner. A very large portion of this year's budget is dedicated to cyber defense and the like.

I do not have numbers here in front of me today to share with you specifically in relation to your question. But if given the opportunity, I would like to come back to you and to the other members with specific answer in terms of the amount of resources being put towards this issue.

[The information referred to can be found in the Appendix on page 67.]

Mr. LANGEVIN. Yes, I would very much like to see that followup, so thank you for that. And I look forward to the followup.

My time is expired. I have other questions.

But at this point, I will yield back, Mr. Chairman.

Mr. WILSON. Thank you, Congressman Langevin.

We now proceed to Congressman Rich Nugent of Florida.

Mr. NUGENT. Thank you, Mr. Chairman.

I appreciate the panel's attendance today.

The Blue Ribbon Study Panel on biodefense made several recommendations, one of which was to enhance public/private partnership in medical countermeasure development. If you could, please discuss DOD's larger plan to incorporate the study panel's findings, as well as touch upon the specific medical countermeasure issue, if you could, please.

Dr. HOPKINS. Thank you very much for the question.

First of all, let me say that I have read, we have read the Blue Ribbon Panel's report, and every one of the 33 recommendations is a positive step in the direction of strengthening biodefense.

In discussion with our staff, we have identified a number that we have already started to step out on. And in particular, we were quite pleased to see the stress on medical countermeasure development. It is obviously something the Nation needs and it is very important to the Department of Defense.

There were a number of recommendations in there that also talk about interagency collaboration. And that, again, is something that

is born out by recent experience with Ebola and others. That is something that can only do good things for the enterprise.

Another area that we thought was especially helpful was a recommendation for rapid point-of-care diagnostics, something that, again, will speed up the process of recovery.

But one of the things we are doing in the Department in order to come up with novel and agile manufacturing techniques is establishing an advanced development and manufacturing capability to address those things that are particular to the Department of Defense. And we think that will help a lot in the direction of implementing some of the panel's recommendations.

Most importantly, though, I think, is the interagency collaboration. I think that what they essentially called for was for agencies, organizations who all have a stake in the biodefense field to collaborate and cooperate much more closely. And I think if we all take that seriously, I think we can strengthen the biodefense enterprise.

Mr. MYERS. If I could add on to Dr. Hopkins's answer, you know, two of the specific recommendations, obviously the public/private partnerships, but also the time in between events, between an Ebola outbreak and things like that, that was the opportunity for us to make significant progress in these areas.

And I will give you one example where I think we are already making good use of the recommendations that came from the Blue Ribbon Panel, and that is in regard to Ebola.

Prior to the Ebola outbreak, the Defense Threat Reduction Agency had spent over $300 million in vaccine treatment research and development. So we had put the resources forward. Those resources went towards building a partnership. The first one was with a small corporation in California called the Mapp Corporation. And they developed one of the drugs that is being tested right now in West Africa called ZMapp, and it is doing very, very well.

And the third leg of that stool, if you will, was the Government of Canada who was also involved in terms of bringing important technology, technological contributions to what became ZMapp.

So I share that example with you as we completely concur with the example that you laid out there and we are trying to apply those things daily in approaching and responding to these difficult biological threats.

Mr. NUGENT. One of the recommendations I believe from that panel was also to invest more in medical countermeasures. Are we doing that? Are we investing more or are we staying status quo?

Dr. HOPKINS. Since the report just came out——

Mr. NUGENT. I realize that.

Dr. HOPKINS. Certainly our emphasis is going to be to invest more, I just can't say how much at this point. But given the stress that the Blue Ribbon Panel put on it and given the lessons learned from Ebola, our emphasis will be on putting more money into that area.

Mr. NUGENT. Obviously, there are things popping up all the time, Zika virus down, you know, in the Caribbean is a threat, at least it will be a threat to Florida, and we are concerned about that obviously. And what a great, if you could weaponize that. I mean, what it does to newborns, infants is unbelievable.

So I think, Mr. Chairman, I appreciate the time. My time is almost expired.

I want to thank the panel. Thank you very much.

Mr. WILSON. Thank you, Sheriff Nugent.

We now proceed to Congressman Brad Ashford of Nebraska.

Mr. ASHFORD. Thank you for this.

And thank all of you.

And I appreciate the comments about Ebola. Obviously, the University of Nebraska Medical Center [UNMC] was a major player, in fact it has the largest bio-containment unit in the Ebola area.

And to Congressman Nugent's point about public/private partnerships, UNMC continues to grow its efforts and bringing, expanding the training center and has a desire to continue to expand it.

And it is interesting, going back to Dr. Phil Smith, who actually developed the idea of bio-containment at UNMC 12 years ago and then working on it for a period of 10 years, and then the Ebola crisis hit we were ready to go and those patients were brought to UNMC.

The city of Omaha and the State of Nebraska participated in making sure that, you know, on the fly we were able to put procedures in place to get those patients to UNMC. And in all but one case we were successful in bringing them back. So, I think there were a lot of lessons there.

You mentioned training. Would you comment, either of you, any of the three of you, comment on I agree that training is very important in all medical facets, how is that in practice going to work? We need to be able to train a lot more people to deal. And the Ebola crisis did sort of highlight sort of the lack of training that was immediately available, but that is now beginning to become available.

So how do we enhance that training as we move forward? Whomever would like to respond.

Mr. MYERS. So, I will take a first stab at it and then let my colleagues add onto it. I think there are two ways to look at training. I think, obviously, first and foremost, I think this is what you are referring to, Congressman, is the domestic training. How do we help prepare first responders, hospital staffs, civil support teams, National Guard, if you will, those who will be responding, how do we prepare them for this eventuality or possibility, if you will?

On the other side of the equation is, what can we be doing overseas to train partners and allies to be better able to deal with these threats as far from American shores as possible?

In both of these areas, the Defense Threat Reduction Agency is playing a role. We are providing training, we are providing advice, we are providing subject matter expertise to a lot of these entities who would be involved in first response.

Organizations and hospitals like the University of Nebraska are true gems. I mean, that is what is going to be required in some of these events. And given my relationship and participation in the STRATCOM [U.S. Strategic Command] chain of command, I am well aware of what a jewel you have there in Nebraska.

But the other side of the equation is, what can we be doing today to help prepare our partners and allies to detect, potentially help begin to respond to these outbreaks overseas?

You know, one of the things I think we learned from the Ebola outbreak is that the more we are able to help prepare those first responders, those hospital staffs, give them the tools that they need to detect and begin to work on it, the better off we are going to be here. So, I think it is a two-phased approach.

Mr. ASHFORD. Yes?

Dr. SMITH. If I could just add on and echo everything that Director Myers offered, but also would highlight the important work of the Global Health Security Agenda which has brought together now 50 nations across the globe, an excellent effort at getting, again, across first responders, military, and so on.

So it is not just a DOD initiative, but a Presidential initiative initially, to bring those countries together to meet health regulations, to identify training gaps, which then enable us to identify whether the United States could appropriately fill that gap, a different partner, and looking to regional models where we can draw on our regional strengths to also address some of the concerns that have arisen.

So it does take it away from our borders where possible, but is also now a global effort, which is fantastic.

Mr. ASHFORD. Yes, sir, Doctor?

Dr. HOPKINS. I would just like to add that the Department of Defense will bring very important and very effective training capabilities, both domestically as well as internationally. I think one of the key lessons learned from the Ebola experience, though, is that it takes multiple agencies and it takes a lot of collaboration. So, our partnering with the Department of Health and Human Services will be essential in order to make sure that that training is as widespread and as effective as it can be.

Mr. ASHFORD. Sir?

Mr. MYERS. Congressman, one last thing to add. When I started in this position 6½ years ago, and you had told me one of the most important relationships and valuable relationships and closest relationships that I would have is with the director of the Centers for Disease Control [CDC], I wouldn't have believed it. But I think that the events and the threats that we are dealing with today has driven that into reality.

And Tom Frieden and I are in contact on a regular basis to make sure that DTRA and the CDC are working hand-in-glove in unison to make sure there is no overlap and there is no gap and that we are complementary.

Mr. ASHFORD. Thank you. And I do appreciate the fact that the Congress put language in the omnibus that expanded the reach of some of these efforts. So, thank you very much.

Mr. WILSON. Thank you, Congressman Ashford.

We now proceed to Congressman Trent Franks of Arizona.

Mr. FRANKS. Thank you, Mr. Chairman.

And thank all of you for being here today.

It is always encouraging when we are able to speak to people who have kind of a comprehensive view of some of these things.

And I guess my first question, I know you have talked a lot about some of the chemical and biological considerations, that will be my second question, but my first question is related to, what area of nuclear proliferation gives you the most concern, you know,

I guess, a wrong that might gain a capability to potentially utilize even a nascent nuclear capability for EMP [electromagnetic pulse] attacks or something along those lines?

In terms of the nuclear issues out there, Pakistan, whatever it might be, tell us what you think, and I will start with you, Dr. Hopkins, what is the area of greatest concern to you that could translate to be dangerous to our country?

Dr. HOPKINS. Thank you for that question. The thing that would keep me awake at night is being able to detect the fact that nuclear proliferation is happening in the first place.

Proliferation of the technologies, proliferation of the materials is something that we have to be on top of. And given the knowledge that has been proliferated and given the fact that there are multiple places where there are materials out there, I think first and foremost we have to have the ability to be able to detect the action of proliferation right from the outset.

Mr. FRANKS. Any area of special concern? Any state or non-state actor that has you most concerned?

Dr. HOPKINS. Well, at this point, given what is in the headlines, it would be North Korea.

Mr. FRANKS. Mr. Myers.

Mr. MYERS. Thank you, Congressman. For me, I would say it is the intersection of nuclear weapons and fissile materials with terrorist organizations. That, to me, is an absolute crucial problem because, A, it is very difficult to determine who got it, how they got it, where they got it from, where they might be taking it.

There is no known source or location, capital or what have you. That would be my answer to the question.

Mr. FRANKS. Dr. Smith.

Dr. SMITH. Sir, mine probably is a combination of the three in the sense that I do believe from a state perspective North Korea represents the greatest threat. We have seen just provocative, destabilizing actions across that nuclear portfolio, most recently, and even over the past many years, as you are well aware.

But particularly to Dr. Hopkins's point, North Korea is also a known proliferator. So, to the extent that some of the initiatives, the Proliferation Security Initiative, other regimes can both be aware of those activities and prevent them or detect them or detect activities even within North Korea I think is critical.

And then certainly, as you have heard in my remarks, the non-state actor expressed interests as demonstrated interests now in the use of CBRN. We haven't seen it on the "N" [nuclear] side of that equation, but that is certainly an area of concern. And again, they have expressed openly that that is an intent.

Mr. FRANKS. Well, I think, you know, that is one of the main concerns some of us have, the vaunted agreement that we had with North Korea was supposed to eviscerate that danger. And of course, now we are facing it in spades.

And it occurs to me then, looking at the two agreements, the one with North Korea, as opposed to the one with Iran, that the one with North Korea was a much stronger agreement. So, you have to forgive me for not being as calm about the whole thing as it may be.

But let me shift to the second question. In terms of non-nuclear threats, what keeps you up at night in that regard?

And I will start again with you, Dr. Hopkins, and we will see if we can get to the end here.

Dr. HOPKINS. Well, thank you again. By far, the potential for the proliferation and use of biological threats is number one.

Mr. FRANKS. In any particular area?

Dr. HOPKINS. Given what I know about our capability to provide protection against conventional threats, I would be concerned about genetic modifications of various potential threats.

Mr. MYERS. I concur with Dr. Hopkins completely. That is exactly my concern.

Dr. SMITH. And again, I think sort of twofold, there is both a current and a future threat. The future threat, I would concur with the gentlemen to my right. From a current threat, again, in the field, we have seen ISIL use of chemicals as weapons. That is certainly an area of concern for me from both the chemical and biological threat.

Mr. FRANKS. Thank you all very much.

Mr. WILSON. Thank you, Vice Chairman Franks.

And we now proceed to Congressman Ryan Zinke of Montana.

Mr. ZINKE. Thank you, Mr. Chairman.

And thank you for being here.

I guess Dr. Smith, the launching of the two ICBMs [intercontinental ballistic missiles], do you see that as a violation of the U.N. [United Nations] resolutions?

Dr. SMITH. Specifically to North Korea's recent launch?

Mr. ZINKE. No, Iranian.

Dr. SMITH. Oh, absolutely. I mean, in both cases then I will say yes. Those are——

Mr. ZINKE. What was our action?

Dr. SMITH. So, my office is not responsible for the U.N. security resolutions.

Mr. ZINKE. Do you know of any U.S. action taken against that?

Dr. SMITH. I am sorry, I don't. But I can certainly get back to you on that.

[The information referred to can be found in the Appendix on page 67.]

Mr. ZINKE. Well, Dr. Hopkins, you had mentioned one of your greatest fears is to evaluate testing and whether or not they are cheating or testing or inspections. Have you read the International Atomic Energy Agency and Iranian agreement in regards to testing protocol?

Dr. HOPKINS. No, I haven't.

Mr. ZINKE. Do you know of anyone that's in your department that has?

Dr. HOPKINS. Certainly.

Mr. ZINKE. By name?

Dr. HOPKINS. Our Nuclear Matters Office.

Mr. ZINKE. Are you in—so you think that the Congress should have a copy though? Because I don't know of anyone in Congress who has read it.

Dr. HOPKINS. Well, assuming we are talking about the same document——

Mr. ZINKE. I think we are.

Mr. HOPKINS [continuing]. You should have it.

Mr. ZINKE. I think so, too, because my concern is is that I agree with you, North Korea is a threat, I also agree that Iran is a threat. But it becomes even more of a threat if we don't take action of something.

Now, we are all concerned about weapons of mass destruction. And I fought in the desert and I directly understand the threat. But North Korea is not tweeting the destruction of Israel, and North Korea is not tweeting the destruction of the "great Satan," us. Iran is.

And I don't think we have—do you think we have the inspection protocols that have some assurance that Iran is not skirting the agreement?

Dr. HOPKINS. I don't have enough knowledge about the protocols to judge the effectiveness.

Mr. ZINKE. Ms. Smith.

Dr. SMITH. So, I can't speak to that except to say that there is certainly a commitment from both the United States Department of Defense, intelligence community, and other partners to carefully monitor and verify. And the program, the joint program, is set up to support that, so we should identify issues of any abrogation.

Mr. ZINKE. Let me turn to the border, the southern border. How much of a threat do you think our southern border is for infiltration of weapons of mass destruction, particularly chemical?

Dr. Hopkins.

Dr. HOPKINS. The potential threat is probably coincident, probably about as strong as the threat from bringing in illicit drugs. From what I understand, the networks that might be used would be ones that would capitalize on the existing infiltration routes.

Mr. ZINKE. Mr. Myers, do you share that same opinion?

Mr. MYERS. Yes, sir. When you look at the paths that these terrorist organizations use, they are using the same paths, whether they are moving illegal contraband, illegal drugs, human trafficking, or what have you. It is difficult to believe they would change their pattern of behavior to move another valuable asset, whether it be weapons of mass destruction or the like.

So yes, I would agree. This is one of the reasons that we have spent an awful lot of time dealing with deeply buried targets and potential WMD pathways such as this. We have a specific R&D [research and development] effort that is focused on finding, detecting, and then potentially eliminating, if the choice is made, to deal with those types of threats.

Mr. ZINKE. And Dr. Smith, based on your knowledge of chemical, do you think it is more probable for homegrown chemical or do you see chemical being transported across border as a principal threat?

Dr. SMITH. So, inherently, because of the chemical industry, there are certainly precursor chemicals that are commonly found easily around the globe for normal use, so the dual-use question is certainly an issue there. So, I would say both are of concern. But to the extent to which we are aware and are working with our partners to make them aware of those concerns related to toxic chemicals that may be part of normal industry is very critical.

Mr. ZINKE. And do we have the same monitoring in Mexico as we do in the U.S. as far as the chemical companies?

Dr. SMITH. I can't speak to that. We can come back to you.

[The information referred to can be found in the Appendix on page 67.]

Mr. ZINKE. Okay.

I will yield the remaining part of my time. Thank you very much.

Mr. WILSON. Thank you, Congressman Zinke.

We will now proceed with a second round.

Dr. Hopkins, the Blue Ribbon Study Panel on Biodefense noted that work dealing with cyber threats to pathogen security is nascent and that the United States is not yet well positioned to address cyber threats that affect the biological science and technology sectors. Can you describe the cyber threat that you see to biological security? How is the Department of Defense addressing these biological security cyber threats?

Dr. HOPKINS. Thank you very much. The cyber threats to the biological systems have to be handled through the process of defining hardness requirements, cyber hardness requirements, for the systems, the communication systems, the diagnostics, and devices that would be used.

We have to start doing that. We have to build them in and basically get away from the legacy systems that may not be as strong in that area.

Mr. WILSON. And I believe a vote is being called.

One real quick question, Director Myers, before you run off. The Department of Defense played a large role in the U.S. Government response to Ebola. What do you think is an appropriate role for the Department of Defense in other global epidemics, such as Ebola? And as you depart, what role would you recommend the Department of Defense to play in the recent Zika virus as cited by Sheriff Nugent?

Mr. MYERS. Well, thank you, Mr. Chairman.

When it comes to the Zika virus, obviously our colleagues at the Department of Health and Human Services have the lead. The Defense Threat Reduction Agency, parts of the chemical biological defense program that Dr. Hopkins oversees are standing by in support through the Secretary of Defense for Health Affairs at the Department of Defense. So, we are standing by to support.

And on the larger issue of epidemics like Ebola, I believe that Congress has provided the Defense Threat Reduction Agency and others with some significant tools that can be brought to bear in these things.

Specifically, I am referring to the Nunn-Lugar CTR program. That was the tool we used to help respond to the Ebola threat. You have given us the flexibility, you have given us the authorities to go out and do some incredible things in these places. I think that is going to continue to be a very effective tool. I think it is one that the Secretary and the President will turn to in some of these events and situations.

And quite frankly, I think the program is going to be used for more and more of these types of things because of the authorities that Congress has provided us.

Mr. WILSON. Well, thank you very much.

And we now proceed to Mr. Langevin.

Mr. LANGEVIN. Thank you, Mr. Chairman.

The CWMD systems organization, as we touched upon, is developing a prototype situational awareness tool, Constellation, and, Dr. Hopkins, you spoke about this briefly in your opening statement, to provide a platform for sharing information across secured domains supporting various communities of interest. What efforts have been taken to eliminate duplication with other CWMD systems? And how is Constellation leveraging over large-scale data tools?

Dr. HOPKINS. Thank you very much for that. First of all, Constellation is using the most up-to-date technology possible in order to make sure that the very ambitious attempt to try to integrate and synthesize and report weapons of mass destruction-related activities can actually be accomplished. And it is focusing very, very heavily on identifying the specific user requirements to make sure that it is useful.

If I could, since Defense Threat Reduction Agency is actually doing the development, I would like to ask Mr. Myers to add.

Mr. LANGEVIN. Certainly.

Mr. MYERS. Congressman, I know our time is short, but I will try and condense this.

We are leveraging the DISA [Defense Information Systems Agency] big-data platform as one of the ways that we are kind of using the technology that is already in place to make sure that we are not duplicating efforts elsewhere.

Similarly, we are working very closely with the Strategic Capabilities Office, part of the Office of the Secretary of Defense, to field Constellation on the next generation of the tactical cloud environment.

So those are two specific steps that we are taking to utilize technology that is already in place and not duplicate something that has already been invested in and working well.

Furthermore, I think the other important part of this is the requirements. Where did we get them? Who defined what Constellation will do and what won't it do?

First and foremost, in 2013 STRATCOM put together a situational awareness Senior Warfighter Forum, something called a SWarF, brought all the combatant command, services, and potential customers of Constellation together. They compiled a good list of what they needed from this tool, what the tool that we were creating needed to provide to them if it was going to be useful. So, that was another way we went about defining that.

And obviously since then, we have developed a concept of operation and an office under Dr. Hopkins has been providing us implementation guidance. And each and every time we put the implementation guidance together and every time we look at that CONOPs [concept of operations], we are constantly scanning the horizon. Because if there is no need to build a wheel and we can use someone else's we will.

At this time, we believe we are taking full opportunity and advantage of technology that is already in place to put this necessary capability together.

Mr. LANGEVIN. Very good, thank you. Thank you for that.

One of the stated goals of the Constellation CWMD situational awareness tool is to be able to share information among different organizations both within the United States Government and between our allies. How have the requirements for Constellation been developed and validated?

Mr. MYERS. Well, the first part of the answer would be the SWarF that I mentioned and brought all the combatant commands and the services together.

But one comment I would make about your question is we are going to be operating on four different levels simultaneously. And we are talking about an open system where we can communicate with international organizations. We are talking about what we call in the Department of Defense our NIPRNET [Non-Secure Internet Protocol Router Network], as well as SIPRNET [Secret Internet Protocol Router Network] on the secret level and on the top-secret level as well.

So one of the difficulties we are having or we are trying to overcome is, how do you operate on all four levels simultaneously to make sure this tool is useful, not only for Department of Defense, but our interagency partners, but also our international partners?

I think one of the lessons learned from Ebola was the portal that we were able to put together, which is kind of an early version, a much smaller version of Constellation, getting our international partners, the World Health Organization, some of the national governments involved and all of us on the same page in terms of being able to share information and have it located in one place, turned out to be absolutely critical. It allowed us to coordinate the assistance quicker and much more effectively.

Mr. LANGEVIN. So, does it interact with or will it interact with World Health, as well as CDC, as well as Department of Defense assets?

Mr. MYERS. Yes, sir, but it would probably be on three different levels, though. I mean, obviously, on the open level, we would be able to work with our international partners. Our friends down at the Centers for Disease Control, we would be able to work with them on any of the three levels. And obviously within the Department of Defense, we would be able to do it from the unclassified level all the way to the top-secret level. And similarly not only with the CDC, but our partners at the Agency for International Development at the State Department.

That is really what we expect to get out of this, that is what we are hoping for.

Mr. LANGEVIN. Okay, thank you.

My time is expired. I appreciate the answers and your testimony.

Again, Mr. Myers, wish you well.

And thank you all for your service.

I yield back, Mr. Chairman.

Mr. WILSON. And thank you, Congressman Langevin.

It is very fitting that we would end on a high note with Congressman Rich Nugent.

[Laughter.]

Mr. NUGENT. Oh, Mr. Chairman, you are always a joy. I appreciate it.

You have got to have a little levity, folks.

As we talk about CBRN, and particularly as we work with our allies in Europe now, they are obviously facing huge migration issues coming across. Are our allies, our NATO [North Atlantic Treaty Organization] allies in particular, are they up to speed in regards to CBRN, in regards to dealing with those issues?

Dr. SMITH. So, sir, I will address that first, and then perhaps, Dr. Hopkins, you might want to add in. But we work closely, so through the OSD [Office of the Secretary of Defense] Policy Office, work closely both in very important bilateral engagements, as well as some multilateral engagements with our partners, and then certainly NATO in and of itself is an important part of that equation as well.

So I would say in some areas we offer more strengths than they do, and in other areas they have strengths that we don't. And I mean that both broadly and both to the defense community itself, but also, in some cases, academia and the NGO [non-governmental organization] and scientific communities in the countries from which those partners draw often have strengths that support ours.

So where I will turn it over is we work at both executive levels, sort of senior steering groups, and then individual issue managers or working groups, where on an annual basis, depending on the topical area, we will set priorities for what we believe are the current or emerging areas and then——

Mr. NUGENT. Well, my question is really, do we have protocols in place if we are today in Europe and we are responding to a crisis with Polish troops, do we have cross-training in regards to CBRN?

Mr. MYERS. Congressman, great example. We have had specific training with the Polish military forces just in the last 18 months, specifically through the chem/bio defense program, through our S&T efforts there.

So yes, I mean, I don't think it would be fair to characterize it as uniform across. Dr. Hopkins and I and Dr. Smith spend an awful lot of time with the United Kingdom, our relationship there, as well as colleagues in France. We have a special relationship in terms of CBRN cooperation with NATO.

So yes, we have got deep relationships. I would not say it is uniform and even across the board, there are pros, there are cons, there are heights, there are lows. But I think we have got good, strong relationships with all of our partners who have specific and significant capabilities in this area.

Mr. NUGENT. Yes, sir?

Dr. HOPKINS. If I could just add, in addition to the partnerships and the agreements, we also do a burden sharing, to an extent, in the research and development area for chemical and biological defensive measures with a number of nations.

Mr. MYERS. And to take that one step further, many of the nations that I have mentioned make significant contributions to the Nunn-Lugar CTR program. When we are doing nonproliferation or counter-proliferation programs with foreign partners, our allies in Europe and elsewhere may not be able to duplicate or do the training themselves, but they will make monetary contributions that the Nunn-Lugar CTR program can take and funnel into the program to offset some of the costs to the Department of Defense. And that is another way we have really built those partnerships. I have spe-

cifically Germany in mind in a number of cases over the last 12 to 18 months.

Mr. NUGENT. Well, you know, my concern obviously is on the battlefield, if exposed to some kind of a biological or chemical attack, if we have the antidote or whatever it may be to treat or the Polish troops have it and we don't, can we share that?

Dr. HOPKINS. Thank you for the question. Actually, we can and we do.

Mr. NUGENT. Okay.

Dr. HOPKINS. In fact, with NATO, we actually share a common challenge standard to make sure that our masks, suits, gloves, individual protection, collective protection, decontaminants all can meet the same standards.

Mr. NUGENT. Very good.

Well, I appreciate your time, and I appreciate your answers. And thank you very much.

And I yield back my remaining time, Mr. Chairman.

Mr. WILSON. And thank you very much, Congressman Nugent.

And again, thank each of you for being here today.

And Director Myers, best wishes for the future.

And I share the concern of Congressman Zinke, and that is that we are facing irrational enemies who truly believe in a policy and a course of death to America, death to Israel. And so, your agencies, your departments have never been more important.

However, in a bipartisan manner, we can work together to protect American families.

And with that, we are adjourned.

[Whereupon, at 4:43 p.m., the subcommittee was adjourned.]

A P P E N D I X

FEBRUARY 10, 2016

PREPARED STATEMENTS SUBMITTED FOR THE RECORD

FEBRUARY 10, 2016

Chairman Wilson Opening Statement
Hearing:
"Department of Defense (DoD) Countering Weapons of Mass Destruction (CWMD) Policy and Programs for Fiscal Year 2017"

February 10, 2016, 3:30pm, 2212

I call this hearing of the Emerging Threats and Capabilities subcommittee of the House Armed Services Committee to order.

I am pleased to welcome everyone here today for this very important and timely hearing on the Department of Defense (DoD) Countering Weapons of Mass Destruction (CWMD) Policy and Programs for Fiscal Year 2017.

The proliferation and potential use of Weapons of Mass Destruction remains a grave and enduring threat. Adversaries of the United States continue to pursue weapons of mass destruction in an attempt to enhance their international influence and threaten the United States, both at home and abroad. Recent media reports of the use of these weapons are widespread. They include news of Daesh's use of chemical weapons in Iraq and Syria, revolutionary advances in biotechnology, and the continued nuclear weapon development in North Korea. These reports highlight the diverse and continued threat posed by weapons of mass destruction to the United States and our allies.

The entire Department of Defense Countering Weapons of Mass Destruction enterprise is critical in preventing, protecting against, and responding to weapons of mass destruction threats. While the Department of Defense has made many important contributions to national security over the last year, there are challenges in the Countering Weapons of Mass Destruction enterprise that still must be addressed.

The inadvertent shipment of inactivated anthrax from Dugway Proving Ground to 194 laboratories in all 50 states, the District of Columbia, three territories and nine foreign countries has exposed scientific, institutional, and workforce problems that need to be addressed to prevent this from ever happening again. We also remain increasingly concerned about the proliferation of dual-use technologies that could potentially be used for WMD development activities. These dual-use technologies could make threats much more readily available to terrorist groups or even lone actors, domestically as well as abroad.

So today we look forward to discussing the priorities for the Department of Defense to counter these evolving Weapons of Mass Destruction threats for fiscal year 2017.

We have before us a panel of three distinguished witnesses:

Dr. Arthur Hopkins
Performing the Duties of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs

Mr. Kenneth Myers
Director, Defense Threat Reduction Agency and U.S. Strategic Command Center for Combating Weapons of Mass Destruction (SCC-WMD)

Dr. Wendin Smith
Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction

I'd like to take this opportunity to recognize the outstanding service of Director Ken Myers, who will be moving on from the Defense Threat Reduction Agency next month. During his leadership as the longest serving Director in the history of the organization, the Agency has expanded international operations, increased research and development cooperation, and transformed into a whole of government resource. Ken's contributions have been critical in safeguarding our nation and our allies, and we wish him the best of luck in his future endeavors.

I'd like to turn now to my friend and Ranking Member, Mr. Jim Langevin from Rhode Island, for any comments he'd like to make.

Not for Public Release until Approved by the
House Armed Services Committee

Statement of Dr. Arthur T. Hopkins
Principal Deputy Assistant Secretary of Defense
Nuclear, Chemical, and Biological
Defense Programs

On
Department of Defense Countering Weapons of Mass Destruction Programs
Fiscal Year 2017

Before the
Emerging Threats and Capabilities Subcommittee
Committee on Armed Services
United States House of Representatives

February 10, 2016

Not for Public Release until Approved by the
House Armed Services Committee

INTRODUCTION

Chairman Wilson, Ranking Member Langevin, and distinguished members of the Subcommittee, I appreciate the opportunity to testify on the United States (U.S.) Department of Defense's (DoD) efforts to counter threats posed by weapons of mass destruction (WMD), and to provide context on the President's Fiscal Year 2017 (FY17) budget request.

I serve as the Principal Deputy Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs, and perform the duties of the Assistant Secretary. Our office provides oversight of the Department's nuclear weapons related programs, chemical and biological defense, chemical demilitarization, and the Defense Threat Reduction Agency (DTRA). We help to ensure that the Department's investments align with the Department's Countering Weapons of Mass Destruction (CWMD) strategy to prevent WMD acquisition, contain and reduce threats, and respond to crises. To perform this mission, the Department coordinates closely with numerous interagency and international partners

The President's FY17 budget request includes resources to reduce threats and protect warfighters in several areas. The Chemical and Biological Defense Program's (CBDP) budget request of $1.19 billion will continue to develop capabilities to protect warfighters and support efforts to deter, prevent, mitigate, respond, and recover from chemical, biological, and radiological threats and their effects. Our Chemical Demilitarization budget request of $551 million will support the safe, complete, and treaty compliant destruction of the U.S. chemical weapons stockpile. Our Nuclear Matters budget request of $45.7 million will continue the development of policies that guide the safety and security of the nation's nuclear deterrent as well as for countering threats of nuclear terrorism and nuclear proliferation. The DTRA budget request of $1.27 billion includes resources to address the full spectrum of WMD-related threats, including Cooperative Threat Reduction (CTR) programs and support to Combatant Commands in their efforts to identify and reduce threats globally. Lastly, our CWMD Systems budget request of $53.8 million will accelerate development of innovative projects to enhance situational awareness of WMD activities globally.

DOMESTIC DEFENSE AGAINST BIOLOGICAL AND CHEMICAL THREATS

Biological Defense

Advancements in biology and chemistry as well as natural evolution can result in new biological agents and threats that the warfighter must be prepared to counter. The CBDP researches and develops capabilities in the areas of medical countermeasures (advanced vaccines and therapeutic drugs), advanced diagnostics, environmental detection, protective equipment, and hazard mitigation. The Department is part of a broad interagency effort known as the Public Health Emergency Medical Countermeasures Enterprise, which leverages our capabilities as well as the Department of Health and Human Services and the Department of Homeland Security to develop and deliver innovative medical countermeasures and effective therapeutics.

To support the development and manufacturing of these medical countermeasures and effective therapeutics, the Department has invested in a new, agile manufacturing capability through the Advanced Development and Manufacturing (ADM) facility in Alachua, Florida. DoD needs the facility to rapidly develop and produce vaccines for our unique population, on a smaller scale than those needed for the public health sector. We are pursuing novel manufacturing capabilities allowing for modular and flexible approaches to meet DoD needs and at the same time reducing sustainment costs. The DoD ADM facility is scheduled for completion in August 2016 and will help strengthen national capabilities to respond to emergencies and address threats to DoD personnel and U.S. citizens.

We continue to take proactive steps to improve the safe and secure handling of biological agents within the DoD. We recently published revised instructions that harmonize security guidance and comply with Executive Order 13546. In response to the inadvertent shipments of live *Bacillus anthracis* spores, as was briefed to this subcommittee on July 28, 2015, the Office of the Secretary of Defense commissioned an independent comprehensive review of DoD procedures for inactivation and viability testing of *Bacillus anthracis* spores. The review found that the protocols used for these operations were not based upon peer-reviewed and quality-assured science. Studies are underway to establish the needed scientific foundations utilizing experts from across the DoD. The DoD will utilize external experts from the CDC, other government agencies and academia as peer review to ensure that future protocols are adequate, appropriate and have a mutually agreed level of risk. Furthermore, DoD has restructured biosafety under an Army Executive Agent, who will facilitate the continued improvement of biosafety at DoD laboratories that handle biological select agents and toxins. In addition, the Army has completed a formal internal accountability investigation and is reviewing recommendations regarding personnel who were involved in the incident. We are confident that these steps will restore our capability to safely and securely perform vital research and development to protect the warfighter and our nation.

Chemical Defense

The Department has active programs that provide the capabilities required to respond to chemical threats in a layered approach that includes detection, physical protection, and medical countermeasures. We invest in detection equipment to identify chemical agents and provide situational awareness for response, and we provide protective equipment to shield against exposure. Our programs also support the development of responsive medical countermeasures.

The Department's development of chemical defense capabilities is a key part of an integrated national effort to address traditional and non-traditional threats. In this budget request, we continue to invest in physical science programs, conduct research, and develop technologies for a range of chemical defense capabilities, including detection, medical countermeasures, decontamination, and protection. The potential for proliferation of non-traditional agent (NTA) information, implications of operational use, and asymmetric impacts of employment on the force has motivated the acceleration of efforts to counter NTAs. Enhanced warning, protection, and countermeasures will save lives and enable flexible consequence management.

Concurrently, DoD continues to make significant progress in domestic chemical weapons destruction programs. Our office oversees programs to meet U.S. commitments under the Chemical Weapons Convention and eliminate the U.S. chemical weapons stockpile. In March of last year, the Department initiated agent destruction operations at the Pueblo, Colorado site using a supplemental destruction technology. Since then, almost all of the 560 munitions that were unsuitable for processing in the primary plant have been destroyed, equating to nearly two tons of agent.

While this is a significant milestone for the program, rapid progress will be made as operation of the Pueblo Chemical Agent-Destruction Pilot Plant (PCAPP) begins later this year. Construction of the PCAPP is complete and final activities to ensure the plant's readiness for safe agent destruction operations are underway. The PCAPP will be used to destroy nearly 780,000 mustard agent-filled projectiles and mortars.

Construction of the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) is substantially complete. The BGCAPP is on track to begin destruction operations in April 2020. The BGCAPP will be used to destroy nearly 87,000 nerve agent-filled projectiles and rockets. A supplemental technology, called a Static Detonation Chamber (SDC), will be used to destroy all of the mustard-filled munitions stored at Blue Grass. Destruction operations using the SDC are scheduled to begin in mid-2017.

NUCLEAR THREAT REDUCTION

The President established an interagency Executive Committee that recently identified priorities for detecting nuclear proliferation. The Executive Committee will review and endorse interagency strategies to advance these priorities in detecting nuclear proliferation. DoD is heavily involved in this interagency process as part of the Executive Committee that will review and endorse interagency strategies to advance these priorities in detecting nuclear proliferation.

The fourth Nuclear Security Summit is planned for March of this year in Washington, D.C. Heads of state and international organizations will continue to build on previous actions to enhance measures to combat the threat of nuclear terrorism, protect nuclear materials, and prevent the illicit trafficking of nuclear materials. Our office has collaborated with partner nations to conduct tabletop exercises of all modes of nuclear material transportation, developed practical guides for transport security, and shared best practices with other states and international organizations. We have also partnered with international stakeholders to conduct international workshops for training industry and government personnel in the effective protection of nuclear materials. We will use FY17 resources to meet future Nuclear Security Summit commitments and enable the continued success of this work.

In coordination with the efforts of other U.S. Government (USG) departments and agencies and international partners, the Department's CTR Global Nuclear Security (GNS) program establishes and maintains nuclear security cooperation with several countries. For FY17, GNS plans to transport vulnerable nuclear or high-threat radiological materials from global partners to more secure locations with the support of the Department's military airlifts. The GNS program will partner with China in the development of a nuclear security Center of Excellence by

providing nuclear security training. GNS will work with Jordanian counterparts to develop capabilities to secure radiological materials in transit and at Jordan's research reactor, and provide maintenance training and equipment to ensure sustainment of these capabilities. GNS will also provide training and equipment to the Ukrainian National Guard nuclear response force units in order to enhance Ukraine's capability to detect the accidental or intentional loss, theft, or diversion of nuclear and high-threat radiological materials, interdict those materials, and return those materials to regulatory control.

Our FY17 budget request also includes resources to procure the Harvester Particulate Airborne Collection System, a modular pod system designed for use on multiple airborne platforms for post-detonation nuclear debris sampling. This system will augment the current United States Air Force nuclear collection capability and will help to inform attribution of an event or an attack.

With respect to the Nation's nuclear deterrent forces, the domestic Nuclear Weapons Accident Incident Exercise (NUWAIX) program serves as the premier interagency training event to enhance the whole-of-government ability to protect, preserve, and secure U.S. nuclear weapons. Annually, this full-scale, national-level exercise program provides realistic conditions for Federal, State, Local, and Tribal entities to work together to address crisis situations and mitigate consequences from a U.S. nuclear weapon accident or incident. DTRA's FY17 budget will support the execution of NUWAIX at Naval Submarine Base Kings Bay in April.

GLOBAL THREAT REDUCTION

Through DTRA, the Department's CTR and capacity building efforts help to identify potential threats and enable effective, early actions to prevent or mitigate them. The CTR Program strengthens biosecurity and pathogen consolidation efforts to ensure that pathogens of security concern, which are endemic or stored in laboratories around the world for research and diagnostic purposes, remain safe from potential adversaries, and terrorist organizations. The CTR Program's effectiveness was most recently highlighted by its timely confirmation of the first resurgent case of Ebola since the World Health Organization declared Liberia Ebola free in spring of last year. This CBEP supported engagement was instrumental in triggering the appropriate response needed to prevent a resurgence of the disease.

The Ebola outbreak highlights the potential for naturally occurring pathogens to cause enormous damage in terms of lives lost, economic impact, and societal stability abroad and in the United States. Countering biological threats is important to both global security and public health. Success in this arena depends on the close coordination among all stakeholders including health, defense, law enforcement, private, international, and non-governmental counterparts. To respond to these complex and evolving threats, the Department has established programs to protect our Nation and enhance our allies' capabilities to detect and respond to man-made or natural outbreaks of diseases of security concern. The FY17 budget, we will continue to support these programs and their important work.

Our office maintains strong partnerships with allied international defense departments with the intent of accelerating technology development, achieving system interoperability, and filling

knowledge gaps for priority threat agents. This is reflected in a number of productive technology cooperative agreements for detectors, diagnostics, biosurveillance tools, and medical and physical countermeasures. Further, the Department and our international partners cooperatively develop and test processes and procedures for potential collaborative biological research events through a series of tabletop exercises. The Department is actively identifying opportunities to maximize the capability and capacity of our infrastructure through sharing agreements with foreign partners.

CWMD SITUATIONAL AWARENESS

The CWMD systems portfolio leads the development of a situational awareness capability for DoD, with the goal of strengthening our ability to forecast WMD threats by accessing and analyzing large amounts of diverse information and providing unprecedented situational awareness of global WMD-related activities. A new information system, Constellation will include information on WMD threats as well as USG and international activities to counter those threats. Developed by DTRA, with support from the Defense Intelligence Agency, Constellation will support analysis, planning, and decision-making by the Combatant Commands and their interagency and international partners. When deployed, it will provide a common information environment that will facilitate secure information sharing and cross-organizational collaboration.

Our FY17 budget request includes resources to transition the Constellation system from a developmental to an operational prototype. Resources will be used to add new data sources and applications, and expand support to more DoD and interagency users. In 2017, the Department will also prepare for transition to an acquisition program of record.

CONCLUSION

WMD threats are real and increasing globally. The Department's top priorities are to prevent attacks, protect warfighters and citizens, and manage the consequences in the event of attack. The Department's activities address the full spectrum of CWMD activities, from preventing acquisition to containing and reducing threats, to responding to crises. We act in collaboration and coordination with numerous interagency and international partners to ensure efficiencies are gained. The President's FY17 budget request will enable us to strengthen our capabilities and continue to perform our mission effectively.

Thank you for this opportunity to testify.

Dr. Arthur T. Hopkins
Principal Deputy Assistant Secretary of Defense for
Nuclear, Chemical, and Biological Defense Programs

Dr. Arthur T. Hopkins is the Principal Deputy Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs. As the Principal Deputy, Dr. Hopkins advises the Assistant Secretary in all matters across the Nuclear, Chemical, and Biological Defense Programs portfolio, including nuclear matters, chemical and biological defense programs, chemical demilitarization, cooperative threat reduction, arms control, and countering weapons of mass destruction.

Prior to his current appointment, Dr. Hopkins served as the Deputy Assistant Secretary of Defense for Threat Reduction and Arms Control, where he was the DoD Treaty Manager for implementation and compliance with international nuclear, chemical and biological treaties and agreements, and advisor to the Assistant Secretary for NCB on planning, acquisition, and execution of programs for countering weapons of mass destruction (WMD) issues.

Dr. Hopkins holds Bachelor and Master of Science degrees in Engineering, Aerospace and Atmospheric Sciences, and Master of Science and Doctoral degrees in Nuclear Engineering.

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House Armed Services Committee

Statement of Mr. Kenneth A. Myers III
Director, Defense Threat Reduction Agency
And
Director, U.S. Strategic Command Center for
Combating Weapons of Mass Destruction

Countering Weapons of Mass Destruction (CWMD) Strategy and the Fiscal Year 2017 National Defense Authorization Budget Request for the Defense Threat Reduction Agency and Chemical Biological Defense Program:

Before the

Emerging Threats and Capabilities
Subcommittee
Committee on Armed Services
United States House of Representatives

10 February 2016

Not for Public Release until Approved by the
House Armed Services Committee

Director Ken Myers
Defense Threat Reduction Agency
Testimony to Emerging Threats and Capabilities Subcommittee
House Armed Services Committee
February 10, 2016

Chairman Wilson, Ranking Member Langevin, and Members of the Subcommittee, it is an honor to be here today to share with you the work we do every day to make the world safer by countering the threats posed by the proliferation and use of weapons of mass destruction (WMD).

Who We Are

The Defense Threat Reduction Agency (DTRA) is a unique place with a rich history. Our roots go back to the Manhattan Project where we provided expertise in weapons effects – work that we still do today. Since that time, we have consolidated several agencies into one, economized our force, expanded our mission areas and demonstrated a track record of success with a direct impact on improving our national security.

As a defense agency, DTRA operates under the authority, direction and control of the Undersecretary of Defense for Acquisition, Technology and Logistics, through the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs, and supports the Commander of the US Strategic Command. In this role, performing and managing a research and development portfolio to develop tools and capabilities in a WMD environment is our prime responsibility. In fact, DTRA provides the Special Operations Command with all of their counterproliferation Science and Technology. As a combat support agency, DTRA communicates directly with the Chairman of the Joint Chiefs, and provides direct support to combatant commanders and the Services.

Our facility at Fort Belvoir also houses the United States Strategic Command Center for Combating Weapons of Mass Destruction (SCC-WMD) and the United States Strategic Command Standing Joint Force Headquarters for Elimination (SJFHQ-E). These organizations were embedded with DTRA because of the leveraging opportunities that strong coordination can provide.

We exist because of the existential threat posed by WMD. The consequences of a major WMD attack on our country are almost unimaginable with potentially devastating impact. Those who wish to harm us understand that the use of such weapons could result in immense loss of life and enduring economic, political, and social damage on a global scale. While not an attack, the recent Ebola outbreak provides a good example of the possible impact of WMD. The panic caused by the Ebola outbreak was not just felt in Africa. The outbreak raised legitimate concerns all over the world. In the United States, there was a non-stop news cycle which persisted for months and there was genuine fear in communities. And the United States only had 4 confirmed cases. Now just imagine if the outbreak hadn't been controlled. Or, what if we had a novel biothreat that we were dealing with? The hypothetical scenarios are easy to develop and imagine. For all of these reasons, there is a clear need for an on-call, comprehensive WMD expertise -- for not just the Department of Defense, but for all of the United States Government. That's what we provide.

Our People

We don't build tanks, satellites or aircraft carriers; our biggest and greatest asset is our people. We have a unique blend of subject matter experts who are able to rapidly respond with information, products, services, plans, and analysis. Our expertise spans the full WMD threat spectrum – chemical, biological, radiological, and nuclear weapons, and high yield explosives (CBRNE). When you walk down our halls you see nuclear physicists, microbiologists, chemists, former Special Forces operators, logisticians, contract specialists, and accountants working side by side to eliminate WMD threats. We are a "one-stop-shop," open 24 hours a day that DoD's functional and geographic commands, the Services and the rest of the interagency can rely on. We are the only USG entity with this type of unique concentration in this critical mission area.

On any given day, tens to hundreds of DTRA and SCC-WMD experts are dispatched overseas, and in certain cases to some of the most dangerous and sensitive of areas, in order to provide analysis, research, testing, training and operational expertise in support of the Warfighter.

Our nuclear experts are supporting global nuclear weapons lockdown efforts, helping to protect and ensure surety of our own nuclear weapons, understanding and predicting nuclear weapons effects, and the survivability of US Nuclear Command, Control, and Communications.

Our biological experts are consolidating and improving the security of dangerous pathogen collections across the planet, collaborating closely with other like-minded nations to prevent nefarious distribution of biological materials. They are also working cooperatively with international partners to build their abilities to counter naturally emerging infectious disease outbreaks and potential intentional attacks caused by genetically altered or weaponized diseases as well as developing new means for protecting our military personnel against biological terrorism.

Our chemical experts are assisting with the safety, security, and cooperative destruction of chemical weapons and developing methods to make it more difficult for terrorists to use Toxic Industrial Chemicals as improvised weapons. Our S&T efforts also address potential future chemical weapons threats.

DTRA structural dynamics experts are working on solutions to protect military and related government facilities at risk while also developing new means for mitigating blast effects resulting from a variety of explosive devices against structures and other infrastructure. Our products are also used internationally, where they have been critical to our partners' efforts in constructing facilities that require the highest levels of protection for personnel and equipment.

Our DTRA and SCC-WMD workforce performs countering weapons of mass destruction (CWMD) planning and exercise support and provides expertise to the combatant commands and other customers.

Our CWMD Science and Technology development is conducted in parallel with our operational capabilities in a complementary and collaborative fashion. DTRA does not own or operate any functional laboratory, but we are able to select from the full range of national expertise, wherever that may be. Our performers include the DoD and Department of Energy/National Nuclear Security Administration (DOE/NNSA) labs, contractors, Federally-Funded Research and Development Centers, University-Associated Research Centers, and academia. And, we provide and operate unique and essential test and evaluation capabilities at government facilities in New Mexico and Nevada to meet our own mission requirements, and those of our various customers and stakeholders.

The Challenge of CWMD

Countering weapons of mass destruction is a complex and challenging mission. During the Cold War, most of our focus was on nation states. We were worried about huge stockpiles of nuclear weapons. While we remain concerned about the acquisition of nuclear weapons by State actors, an emerging concern is terrorist acquisition of WMD materials that could be stolen, modified, or enhanced for use as a weapon. We are not talking about huge factories or facilities in most of these cases; sometimes it is a small laboratory that could fit inside a bathroom. Given this reality, no region of the world is impervious to potential WMD threats.

The barriers to making WMD, including deadly pathogens, continue to fall every day. Once developed, they are difficult to detect and stop while in transit. The footprint can be small in these cases. And don't forget the power of the internet. The availability of open source expertise and journals now allow for people anywhere to learn about dangerous materials. It is hard to get ahead of this type of threat. Likewise, terrorist activity is on the rise. There are more of them and they are in more places. And, of biggest concern, the terrorists that we are facing today have clearly demonstrated that they will use any weapons or materials at their disposal and for them, no targets are off-limits.

Let me add a couple of additional factors. The increased movement of people means that devastating diseases, whether spread naturally, accidentally or intentionally, can be transferred worldwide through a simple plane trip. There is also a greater threat of animal-to-human pathogen transmission due to the growth of the population which has pushed individuals to reside where only animals once lived.

In addition, the prevention space is hard to quantify and the demand signal continues to increase. It is difficult to assess what crises we have averted as a result of forward-leaning actions to prevent materials from falling in the wrong hands. The job will never be "completed" nor absolute. Prioritization, cooperation, and leveraging ability is key in this environment. You can't simply be "everywhere" to counter these threats.

Partnerships

For all of these reasons, countering WMD threats has to be performed on a larger scale than just one single institution. No one Department, no single geographic region, no single country can marshal the necessary capabilities alone to successfully fight the WMD threats we face in this day and age. Success requires careful collaboration and communication across a variety of functional areas and also with a diverse group of institutions, partner nations and organizations abroad. In addition to established partners like the Departments of Energy, Justice, State and Homeland Security, we also have key relationships with the Department of Health and Human Services, including its Centers for Disease Control and Prevention, and international organizations like the World Health Organization and the World Organisation for Animal Health. These health-focused organizations are critical partners as we address biological threats. As the Ebola outbreak showed, biothreats are both a public health issue as well as a biosecurity and biosafety issue.

Success in this New Reality

The countering weapons of mass destruction effort is further complicated because WMD events are occurring more often and in real-time. In 2011, DTRA provided real-time technical and

modeling assistance to our US Armed Forces in Japan and the Japanese government in dealing with the estimated 9.0 magnitude earthquake and subsequent tsunami that battered the east coast of Honshu, Japan. The tsunami damaged the Fukushima nuclear power plant, and resulted in the biggest nuclear accident since Chernobyl. At the same time, DTRA was providing planning support to Operation Odyssey Dawn and played a role in the eventual destruction of the declared chemical weapons in Libya. DTRA had several lines of support in the destruction of Syria's chemical weapons. We worked with our DoD partners to create a first ever field- deployable chemical weapons destruction facility in a mere five months. In 2013, working with our interagency partners, DTRA was able to outfit a ship to host the destruction facility in 66 days. Both achievements were remarkable in terms of their turnaround times and had a direct impact on the success of destroying 600 metric tons of Syria's declared chemical weapons and materials. And of course in 2014 and 2015, DTRA led several lines of effort in response to the Ebola outbreak in West Africa. DTRA developed and provided medical countermeasures and diagnostic equipment; created and shared situational awareness tools and modeling data; purchased and delivered mobile labs and laboratory equipment; provided Ebola response training; and developed, tested and fielded the Transportation Isolation System – a novel system which allows for the transport of multiple military members exposed to a deadly, highly infectious disease, such as Ebola while still keeping the medical caregivers and aircrew safe from exposure. Some of these efforts demonstrate our ability to move quickly and adapt to ever-changing threats, while others – especially medical countermeasures – are the result of years of research and having the foresight 5, 10, even 15 years ago, to address WMD threats that were not of concern to most people.

I highlight these examples for the Committee for three reasons. One, we have a track record of success with several high profile and significant CWMD challenges.

Two, nearly every year since 2011, we have faced another WMD crisis. These are not necessarily situations that can be easily budgeted or planned. In these cases, we are forced to surge our efforts and reprioritize resources from more steady-state types of activities.

And the third reason is because the unique authorities and funding that Congress provides to us each year allows us to respond to these challenges. When we are presented with a WMD challenge, we carefully review our various authorities and funding and approach problems on a regional, mission-focused basis. We have internally organized ourselves to promote communication, agile contracting, rapid innovation, and quick turn decision-making to achieve success. DTRA's ability to rapidly respond to the nation's requirements remains at the fundamental core of the Agency mission and directly enables accomplishment of real-time US global health and national security objectives.

The Levant

Let me give you an example. The devastating turmoil in Syria has had a broad impact to the security of the Middle East and beyond. It was clear by 2012 that the countries neighboring Syria both wanted and needed improvements to their military and civilian response sectors to counter the possible illicit WMD-related trafficking coming from Syria. DTRA immediately started working with USCENTCOM and the whole of the U.S. Government to build the countering weapons of mass destruction capacity of the Governments of Jordan, Turkey, Iraq, and Lebanon. In these countries, to varying degrees we train, equip, and exercise with the military and civilian sectors so they can address non-proliferation, counter-proliferation and consequence management issues.

For Jordan, now home to over 600,000 Syrian refugees, the potential for WMD coming across its borders became a critical concern and they approached the U.S. Government for assistance.

Working within the Department of Defense, the interagency, and utilizing the capabilities of the Nunn-Lugar Cooperative Threat Reduction Program, DTRA is making a significant difference to Jordan's regional security approach through the Jordan Border Security Program (JBSP), just one of many projects on-going in Jordan today. This work is now more important than ever given the rise of ISIS, the clear use of chemical weapons, and the well-known intention of terrorists to utilize any WMD material against the United States and our allies.

The Jordan Border Security Program provides automated border security capabilities – an integrated border surveillance system and a command and control network that provides a common operating picture to the Jordan Armed Forces (JAF). The Phase 1 system was implemented on the Northern border with Syria. Phase 1 was implemented by another partner through Foreign Military Financing, but Jordan had not allocated funding for later phases. Through the unique authorities and funding available through the Nunn-Lugar Cooperative Threat Reduction program, DTRA was able to fund and implement Phases 2 and 3 of the program. The Phase 2 section picks up on the boundaries of the Phase 1 system towards the Syrian and Iraqi borders. Phase 3 provides overlapping coverage of the Iraqi border. These phases expand Jordan's capability to remotely monitor its vulnerable borders. Simply put, the length of the border (Phase 1 and 2) is roughly about a trip from Washington, D.C. to Raleigh, North Carolina. Phase 3 is an additional trip from Raleigh down to Charleston, South Carolina. Given the threats that Jordan faces, all three Phases are critical for success.

Through assertive management of timelines and schedules the U.S. Government provided an initial operating capability to Jordan in December 2014, far in advance of what was originally projected. As JAF personnel became familiar and more accustomed to the system and they placed more operators along the border, Jordan began to have operational successes and begin interdicting border incursions. In fact, after only about six weeks of using the system, JAF detected several vehicles trying to cross a berm and penetrate into Jordan from Syria. Today, the systems are fully operational and this project has been officially transferred to the Kingdom of Jordan who will maintain it throughout its lifecycle.

In addition, the Nunn-Lugar border security effort was enhanced by DTRA's CBRN Preparedness Program (CP2) and its ongoing engagements with USCENTCOM in the region. CP2 is a Combat Support Agency effort for Global Combatant Commanders. Utilizing 2014 NDAA Section 1204 authorities, CP2 provides assistance to the military and civilian first responder organizations of designated Partner Nations, to include Jordan, Lebanon, Iraq, and Turkey, which border Syria.

The JBSP is a Defense Agency effort, while CP2 is a Combat Support Agency effort. Two different funds, two different authorities, two different DoD customers, but one country and one threat. Jordan is a good example of where a Defense Agency and Combat Support Agency come together completely. It is a coordinated and smooth effort.

Ukraine

Another excellent example of our building partnership capacity efforts involves Ukraine. DTRA has successfully worked with the Ukrainians for many years, in particular on border security efforts. Our longstanding work with the Ukrainian State Border Guards Service has focused on how to look for weapons of mass destruction (WMD), toxic chemicals, or associated WMD materials. We trained them on how to detect smuggled devices and related techniques.

Now, obviously, our help is needed more than ever. The Ukrainians are understandably worried about controlling border crossing points where known smugglers traverse. They want to make sure that no WMD or smuggled devices make it into their country and they have the desire to be better prepared to respond.

In 2014, DTRA, in close collaboration with U.S. Embassy Kyiv, delivered a motorized brigade and engineering battalion's worth of vital border security equipment in 18 months. This included communications equipment to improve command and control capabilities, personnel sustainability and engineering equipment to support immediate operations near conflict zones, and other mobility assets to patrol borders, administrative boundaries, and territorial waters. In close collaboration with the Ukrainian State Border Guard Service and other US Government agencies, DTRA applied Nunn-Lugar Cooperative Threat Reduction program funding to deliver Ukraine $39 million worth of assistance. By leveraging DTRA's expertise in capacity building, the Ukrainians are better prepared to detect smuggled WMD devices and are better prepared to respond to potential future WMD threats across the Russian and separatists borders.

At the same time, DTRA's CP2 is also working in Ukraine to provide critical skillsets needed for responding and handling CBRN material safely. Much like Jordan, this effort complements the border security work.

This is the type of work that DTRA does in many places around the world, places such as Moldova, Georgia, Albania, and Kosovo.

Support to the Nuclear Deterrent

Last year I shared with the Committee our intent to establish a Nuclear Enterprise Support Directorate (J10) to support the nuclear deterrent. This action fulfilled a commitment to elevate and increase focus on our nuclear mission in order to meet the expectations of the DoD Nuclear Enterprise Review. I am pleased to inform the Committee that our J10 reached full operational capability in May 2015. Our J10 has continued to develop programs in a wide array of areas, including nuclear surety, stockpile logistics, inspections, education, training, exercises, as well as assessments and Countering-WMD.

Joint Improvised-Threat Defeat Agency

I also want to update the Committee about the Department's intent to realign the Joint Improvised-Threat Defeat Agency (JIDA) under DTRA. This move is in response to the fiscal year 2016 National Defense Authorization Act which prohibited JIDA from standing up as a separate agency and directed that the capabilities of JIDA be transitioned to a military department or to an existing defense agency.

I can assure the Committee that the Counter-Improvised Explosive Devices and the CWMD missions will be preserved and enhanced under this transition. Both these missions are critical for the safety of our nation's warfighters and to the national security of our country and that of our allies. JIDA will now transition and operate under the authority, direction, and control of DTRA. Realigning JIDA under DTRA will enhance upstream threat prevention and defeat capabilities. Other areas of collaboration will include sharing science and technology information, collaborating on security cooperation and building partner nation capacities,

leveraging acquisition and information technology strengths, sharing expertise particularly in anticipating and identifying emerging threats, and improving each other's situational awareness regarding indications and warning on global threats. Under DTRA, JIDA will now be referred to as the Joint Improvised-Threat Defeat Organization (JIDO).

Budget Request

Fiscal Year 2017 (FY17) DTRA Budget Request Overview

Our base budget request for FY17 is $1.2 billion and comprises Defense-wide Research, Development, Test and Evaluation; Operations and Maintenance; Procurement; and Nunn-Lugar Cooperative Threat Reduction (CTR) appropriation accounts. In addition, DTRA executes the $361.4 million Science and Technology (S&T) portion of the DoD Chemical and Biological Defense Program (CBDP) and serves as the funds manager for the remainder of that program's funding, $832.8 million. Additionally, $408.3 million in overseas contingency operations funds have been requested in the Joint Improvised-Threat Defeat Fund (JIDF) for execution by JIDO. Therefore, the total DTRA resource portfolio is approximately $2.84 billion. Details and highlights for these requests follow.

Operations and Maintenance Funding

O&M funding directly supports the warfighters and national missions as it pays for planning, training, exercises, and other means for collaboration across DoD, the USG, and international partners. O&M funding is the fuel that enables us to reach out to our components and personnel, the warfighters, and international partners across the globe.

The requested $448.1 million in O&M funding would be applied as follows:

** Nonproliferation Activities ($70.3 million) for arms control activities including the conduct of USG inspections of foreign facilities, territories, or events; coordination and conduct of the escort of inspection teams for inspections or continuous monitoring activities in the U.S. and at U.S. facilities overseas; and the acquisition and fielding of technology capabilities required to

implement, comply with, and allow full exercise of U.S. rights and prerogatives under existing and projected arms control treaties and agreements. Last fiscal year, we conducted 37 New START Treaty missions, 24 Open Skies Treaty missions, 22 conventional engagements in Ukraine, and established a Chemical Weapons Convention treaty monitoring detachment at Pueblo Chemical Depot.

** WMD Combat Support and Operations ($188.0 million) for a wide range of combat and warfighter support to the Joint Chiefs of Staff, the Combatant Commanders, and military forces as they engage the WMD threat and challenges posed to the U.S., its forces and allies. DTRA supports the essential WMD response capabilities, functions, activities, and tasks necessary to sustain all elements of operating forces within their area of responsibility at all levels of war.

** U.S. Strategic Command Center for Combating WMD ($10.3 million) for DTRA direct support to the SCC-WMD including providing strategic and contingency planning, policy, and analytical support; developing interagency relationships; and working closely with USSTRATCOM partners to establish the means for assessing and exercising capabilities to combat WMD.

** Core Mission Sustainment ($179.5 million) for a wide range of enabling capabilities which include information management; resource management; security and asset protection; acquisition and logistics management; strategic planning; leadership and professional development; and provide the safety, security, and efficiency necessary for mission success.

Nunn-Lugar Cooperative Threat Reduction Program

The request of $325.6 million for this important program would be used as follows:

** Strategic Offensive Arms Elimination ($11.8 million) for propellant destruction and elimination activities of SS-24 ICBM solid rocket motors in Ukraine.

** Chemical Weapons Destruction ($2.9 million) for working with Iraq to secure and inventory toxic industrial chemicals and materials from those who seek to exploit them and with other

partner countries to reduce threats by assessing and being prepared to destroy chemical weapons stockpiles, chemical agent research capabilities, and production facilities..

** Global Nuclear Security ($16.9 million) for improving nuclear material security, including security for weapons-usable nuclear material. This program also assists in the secure transport of high-threat radiological and nuclear weapons-usable material to secure storage areas, or to processing facilities for disposition. The program also directly supports planning and preparation activities related to potential contingency response requests to secure, transport and dispose of interdicted nuclear weapons, components or material.

** Cooperative Biological Engagement ($214.0 million) for preventing the proliferation of biological weapons, weapons materials, and expertise. This program secures certain biological agents at their source, and conducts activities that facilitate detection and reporting of highly pathogenic diseases of national security concern. This program works closely with other US Government departments and agencies, international partners and the private sector.

** Proliferation Prevention ($50.7 million) to enhance the capability of partner countries to deter, detect, report, and interdict illicit WMD trafficking across international borders.

** Threat Reduction Engagement ($2.0 million) to support relationship-building engagements intended to strategically advance the Nunn-Lugar Cooperative Threat Reduction Program mission with new partners and new geographic locations.

** Other Assessments/Administrative Support ($27.3 million) to provide a network of regional offices and bilateral offices at US Embassies to facilitate DTRA activities and ensure that DoD-provided equipment, services, and related training are fully accounted for and used effectively and efficiently for their intended purposes. This account also funds Nunn-Lugar program travel, logistics, translator/interpreter support, and other Agency support.

Research, Development, Test, and Evaluation

DTRA RDT&E programs respond to the most pressing CWMD challenges including stand-off detection, tracking, and interdiction of WMD; modeling and simulation to support weapons effects and hazard predictions; classified support to Special Operations Forces; defeat of WMD agents and underground facilities; and protection of people, systems, and infrastructure against WMD effects.

DTRA RDT&E is unique in being focused solely on CBRNE; tied closely with the agency's Combat Support responsibilities; has a top-notch in-house field test capability; relies upon competitive bids, the national labs, industry, and academia rather than an in-house laboratory infrastructure, allowing for a "best of breed" approach to performer selection; and is nimble and responsive to urgent needs. DTRA's test beds provide unmatched threat-representative target structures and threat-characteristic geologies. We support a number of Service, Joint Staff, and Combatant Command priorities, including development of the Large Caliber Penetrator; expanded tactics, techniques, and procedures for use of the Joint Programmable Fuse; and enhanced U.S. missile defeat capabilities.

The agency has a comprehensive, balanced CBRNE S&T portfolio that supports DoD goals and is well connected with DoD customers, as well as interagency and international partners. Our RDT&E approach balances the need for near-term pay-off with the need for long-term technology and capability development, knowledge and expertise, and is centered upon the following programs: Basic Research (6.1), Applied Research (6.2), Advanced Research (6.3), and System Development and Demonstration (6.5). The requested RDT&E funding totals $461.3 million. We are requesting $35.4 million in Basic Research to provide for the discovery and development of fundamental knowledge and understanding by researchers primarily in academia and world-class research institutes in government and industry. The DTRA Fiscal Year 2017 request also includes $154.9 million for WMD Defeat Technologies Applied Research, which is used to translate fundamental knowledge into useful materials, technologies, and concepts that address recognized CWMD needs. Our $266.4 million budget request for Proliferation Prevention and Defeat Advanced Research funds development of systems, subsystems, and component integration to build, field and test prototypes to assess utility and feasibility of technology solutions to well-defined CWMD requirements. Finally, $4.6 for WMD

Defeat Capabilities System Development and Demonstration funds development, operational testing, and initial deployment of mature technologies and systems.

These programs have resulted in significant capability transfer to the warfighter. DTRA has transitioned nuclear detection and forensic capabilities to the Air Force Technical Applications Center and the Army's 20th CBRNE Command. All 57 National Guard Civil Support Teams now benefit from use of the Mobile Field Kit, a hand-held device and application that integrates and coordinates the readings from multiple radiation sensors. We've achieved initial operating capacity for the National CWMD Technical Reachback Support Enterprise, providing 24/7 CBRNE decision support capability for planning, operations, and post event analysis to Combatant Commands, OSD, the Joint Staff, the Intelligence Community, and other USG agencies. We're hard at work developing capabilities for missile defeat, advanced analytics and discovery processes to predict the emergence of future threats, standards and technologies to protect critical systems from electromagnetic pulse, and models to predict the multidimensional effects of nuclear weapons use for USSTRATCOM.

Procurement, Defense-Wide

The DTRA Fiscal Year 2017 budget request includes $6.6 million in procurement for mission-essential major equipment and vehicles.

Chemical and Biological Defense Program S&T

The Department's CBDP S&T programs support DoD-wide efforts to research, develop, and acquire capabilities for a layered, integrated defense against CBRNE agents; better understand potential threats; secure and reduce dangerous materials whenever possible; and prevent potential attacks. Although funding for the CBDP is not part of the DTRA budget request, the agency executes the S&T portion of this program, for which the Department has requested approximately $361.4 million in FY17. The agency also manages funding execution in support of CBDP advanced development and procurement.

Overseas Contingency Operations Funds

Joint Improvised-Threat Defeat Fund

The $408.3 million requested in the JIDF will enable JIDO to support DoD efforts to counter improvised threats with tactical responsiveness and through anticipatory, rapid acquisition in support of Combatant Command's efforts to prepare for, and adapt to, battlefield surprise. JIDO accomplishes this mission by sustaining an advanced information technology and fusion infrastructure that enables a threat awareness and understanding capability; providing expeditionary, forward deployed operations, intelligence, training, and advisory capabilities with reach-back support linked to broad intelligence community, interagency, industry, and academia communities of action; enabling rapid and innovative counter-improvised-threat solution development and delivery; and supporting Military Departments/Services' pre-deployment training and Combatant Commands' priority training-exercise support requirements as requested and validated.

I would like to thank the Committee for this opportunity to share some of our recent efforts and accomplishments. There are a number of challenges on the horizon, but I am confident that the resources provided in our budget request will allow us to appropriately address these problems. I hope that we will continue to earn the Committee's trust and support in meeting WMD threats and ensuring our security. Thank you, again, for the opportunity to be here today. I would be pleased to respond to your questions.

Kenneth A. Myers III

Ken Myers, a member of the Senior Executive Service, is the Director of the Defense Threat Reduction Agency (DTRA) and the U.S. Strategic Command Center for Combating Weapons of Mass Destruction (SCC-WMD), located at Fort Belvoir, Va. Mr. Myers is the fourth and longest serving Director of DTRA/SCC having assumed responsibilities on July 27, 2009.

DTRA/SCC-WMD manages a $2.6 billion budget and operates simultaneously as a defense agency, combat support agency, and a Combatant Command component that safeguards America and its allies from weapons of mass destruction (WMD). With offices in 14 countries, DTRA/SCC-WMD is charged with providing the Services and Combatant Commands with expertise and capabilities to deter, defeat, eliminate, and prevent proliferation through 24/7 operations and programs in over 100 international locations daily. DTRA/SCC-WMD implements a research and development portfolio focused on elimination, defense, and detection of WMD and deeply buried targets. Mr. Myers has expanded DTRA/SCC-WMD operations to Africa, SE Asia, and the Middle East as well as increased international R&D cooperation, and transformed the Agency/Center into a "whole of government" resource. Under Mr. Myers leadership, DTRA/SCC-WMD has been awarded with three Joint Meritorious Unit Awards.

In 2013, the Standing Joint Force Headquarters for Elimination (SJFHQ-E) joined DTRA/SCC-WMD at Fort Belvoir. Together, they have formed a cohesive "One Team" with the goal of "making the world safer."

Prior to arriving at DTRA, Mr. Myers served from 2003 to 2009 as a senior professional staff member on the U.S. Senate Committee on Foreign Relations. He also served as the senior advisor to Sen. Dick Lugar, the committee's ranking minority member, on European, former Soviet Union and Central Asian affairs, and the Caucasus, as well as for arms control, arms sales, and combating weapons of mass destruction (CWMD) matters. Mr. Myers assisted Sen. Lugar on the Nunn-Lugar Cooperative Threat Reduction (CTR) program, the U.S./Russian relationship, arms control, security and confidence building measures, and NATO and European Union issues. He had a leading role in several critical foreign policy debates including NATO enlargement, the Moscow and Strategic Arms Reduction treaties, U.S. nonproliferation and counterproliferation policies, export controls, the U.S./India Peaceful Atomic Energy Cooperation Act, and the Lugar-Obama Cooperative Proliferation Detection, Interdiction Assistance, and Conventional Threat Reduction Act. In addition, Mr. Myers was a regular advisor on U.S. policy towards the Middle East, South Asia, and North Korea and was also responsible for reviewing nominees for ambassadorial posts in Europe and the former Soviet Union.

From 1995 to 2002, Mr. Myers served as a legislative assistant for national security and foreign affairs for Sen. Lugar. He assisted the senator in his role as a member of the U.S. Senate Committee on Foreign Relations, the Select Committee on Intelligence, and the Senate National Security Working Group and Russia Working Group.

Prior to joining the senator's staff, Mr. Myers was a senior associate at the firm of Robinson Lake Sawyer Miller in Washington, D.C., where he specialized in U.S. public and private sector investments to the successor states to the former Soviet Union and was responsible for establishing that firm's office in Kyiv, Ukraine.

Mr. Myers holds a master's degree from the Catholic University of America and a liberal arts and sciences degree from Virginia Polytechnic Institute and State University.

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THE HOUSE ARMED SERVICES COMMITTEE

STATEMENT OF

DR. WENDIN D. SMITH
DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR
COUNTERING WEAPONS OF MASS DESTRUCTION
BEFORE THE HOUSE ARMED SERVICES COMMITTEE
EMERGING THREATS AND CAPABILITIES SUBCOMMITTEE
FEBRUARY 10, 2016

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INTRODUCTION

Chairman Wilson, Ranking Member Langevin, and Members of the Subcommittee, I am pleased to testify today about the Department of Defense (DoD) Countering Weapons of Mass Destruction (C-WMD) policy portfolio that I supervise, and the Fiscal Year (FY) 2017 budget request. Today's complex security environment has made countering WMD threats ever more challenging and multi-dimensional. Three competing trends highlight the challenges we face in countering WMD. First, despite persistent efforts by the international community, some state actors continue to demonstrate interest in developing, acquiring, or advancing WMD materials and programs. Recent provocative and dangerous activities by the Democratic People's Republic of Korea (DPRK) highlight the continued challenges posed by state-based threats, and our need to remain vigilant. Second, non-state actors are concurrently demonstrating an increasing interest in acquiring or developing WMD capabilities, and have signaled their intent to use WMD if acquired. For these actors, traditional statecraft and nonproliferation tools may not be effective, requiring that we identify new and creative approaches to deter and prevent non-state acquisition and use of WMD. Third, our increasingly interconnected world enables the diffusion of WMD-related knowledge, materials, and technology to those seeking to harm the United States at home or our interests abroad. We believe it is critical to prepare for these emerging challenges, including the WMD-related threats evolving from the application of advanced technologies such as with additive manufacturing, unmanned systems, and cyber tools. We must continually exercise flexibility and creativity in countering emerging WMD challenges.

In 2014, then-Secretary Hagel issued a Strategy for Countering Weapons of Mass Destruction (CWMD) that updated DoD's approach to this challenge and directed DoD components to focus on particular lines of effort, objectives, and supporting activities. My testimony today will: outline how, almost two years following its release, we are applying this strategy to reduce the threat to the United States from chemical, biological, radiological, or nuclear (CBRN) weapons or materials, and preview how these efforts relate to the FY 2017 budget request.

As the Deputy Assistant Secretary of Defense for CWMD, I am responsible for establishing policies and guidance to protect our armed forces and other U.S. interests from a CBRN attack; and for representing DoD's interests on counterproliferation and non-proliferation policy issues. My office contributes to international efforts such as the Proliferation Security Initiative (PSI), the Nuclear Security Summit (NSS), and the Global Health Security Agenda (GHSA). We also support the Department of State (DOS) in implementation of treaty commitments under the 1993 Chemical Weapons Convention (CWC), the 1972 Biological and Toxin Weapons Convention (BWC), and the 1968 Nuclear Non-Proliferation Treaty (NPT). My office's portfolio of activities requires robust coordination with a wide range of interagency players, including the DOS, the U.S. Agency for International Development (USAID), the Department of Energy's National Nuclear Security Administration (NNSA), the Department of Justice's Federal Bureau of Investigations, the Department of Homeland Security, and the Centers for Disease Prevention and Control and Prevention (CDC) in the U.S. Department of Health and Human Services.

The CWMD office also develops policy and guidance for the programs and activities of the DoD Cooperative Threat Reduction (CTR) Program, which is among the activities implemented by the Defense Threat Reduction Agency (DTRA). Under the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, the Office of the Assistant Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs serves as the DoD's treaty manager, and provides authority, direction and control for DTRA's work. I am pleased to be here today with colleagues representing each of these organizations, both of which are integral to seamlessly countering the WMD threats that I will be addressing.

STRATEGIC APPROACH FOR COUNTERING TODAY'S WMD CHALLENGES

The DoD Strategy for Countering WMD articulates a comprehensive approach to addressing WMD threats. First, DoD takes proactive steps to *prevent acquisition* of WMD by adversaries and potential adversaries. Second, we *contain and reduce* threats by improving our ability and that of our partners to identify, locate, secure, and mitigate threats from WMD and WMD-related materials. Third, DoD seeks to maintain the necessary posture, capabilities, and authorities to *respond* to emergent WMD crises. Underpinning all three efforts is a constant cycle of preparation – the strategic enabler to ensure our policies, capabilities, and forces are positioned to respond.

PREVENT ACQUISITION

Ensuring that those who do not currently possess WMD do not obtain them is a critical component of our countering-WMD effort. This has become an extraordinarily complex undertaking given the diffusion of WMD-related knowledge, materials, and technological advances referenced above. For example, Additive Manufacturing (AM) processes harness the technology of 3-D printing, robotics, and the proliferation of design information to empower individuals to manufacture an unprecedented array of materials and components – many of which carry WMD-related applications. The emergence of "do-it yourself" biology communities, combined with low-cost DNA synthesis and the emergence of online access to genomic data for pathogenic organisms, makes synthetic biology increasingly feasible for those operating outside traditional research laboratories – including, potentially, those with harmful intent. Further, emerging "gain of function" biotechnologies can be used to make influenza viruses and mild infectious agents more dangerous through characteristics that increase spread in mammals, increase virulence in humans, evade existing host immunity, or become resistant to antibiotics or antivirals. In addition, encrypted-communication technologies increasingly enable nefarious individuals to develop and exploit illicit networks, potentially communicating and sharing WMD-related information with a reduced risk of detection. These emerging threats are just a few examples of those that intersect with cross-domain challenges of political instability, violent extremism, and poor infrastructure in states suffering from natural outbreaks of devastating diseases.

These trends could potentially be exploited by highly motivated non-state actors determined to obtain and employ WMD, particularly when such actors have effective control over territory,

knowledge, and finances with which to accomplish their objectives. It is therefore essential to deny terrorists and other non-state actors with malevolent intent access to WMD-related materials. The use of chemical weapons in Syria by state and nonstate actors demonstrates that the threat of WMD is real and may reflect an intent by these actors to use CW to terrorize populations, gain battlefield advantage, or advance other goals. Military operations against adversaries, coupled with cooperative efforts to secure or eliminate vulnerable material and to build the physical and human-capacity infrastructure necessary to prevent WMD proliferation, are critical tools to counter these threats. Continuing to deter and mitigate the threat of non-state actors acquiring and using WMD remains a top priority – and one that requires nimble and flexible approaches.

The DoD CTR Program remains one of the most flexible tools of the U.S. Government for preventing acquisition of WMD and WMD-related materials. The DoD CTR Program has a decades-long track record of working with foreign partners to successfully destroy existing WMD stockpiles; to make nuclear, chemical, and biological weapons more difficult to acquire; and to detect and interdict dangerous WMD components and materials. In line with DoD's strategy, the DoD CTR Program has evolved in recent years in response to the changing threat environment. From an early emphasis on securing sources of WMD material in the former Soviet Union to a focus in recent years on eliminating state-based CW programs outside the former Soviet Union (for example, in Syria and Libya), the Program builds the capacity of partners to counter WMD proliferation posed by non-state or State actors, and from the potential emergence of diseases of security concern. The FY 2017 budget request for the DoD CTR Program is $325.6 million, which meets our current requirements. Further description of some of the accomplishments of the DoD CTR Program that demonstrate the return on this investment are described below.

The use of nuclear weapons and materials by states or terrorists poses one of the greatest dangers to our security. DoD's CTR Global Nuclear Security (GNS) Program is the primary mechanism for DoD's contributions to build partner capacity to enhance the security and prevent the proliferation of nuclear materials, and supports broader U.S. Government nuclear security objectives in bilateral, regional and global constructs.

As one example of the GNS Program's bilateral engagement, in Kazakhstan the Program is improving Kazakhstan's nuclear-security capabilities, and installing a computer-based inventory-management system to track and control nuclear materials. DoD also used the DoD CTR Program's Transportation Authority, obtained by the Department in 2013, to transport high-threat radiological material from Mexico for disposition in the United States. These efforts were carried out in close partnership with the Department of Energy, reflecting our commitment to integrate DoD threat-reduction activities with the complementary programs of other U.S. Government departments and agencies. On a regional level, DoD continues to work alongside its interagency and international partners to advance progress on the establishment of the Nuclear Security Center of Excellence in Beijing, one of a few nuclear security centers with whom the DoD CTR Program engages. At the global level, the GNS program directly supports the

President's Nuclear Security Summit process, which brings together a community of more than 50 world leaders and international organizations to attract high-level attention to the global threat posed by nuclear terrorism, and to advance a common approach to strengthening nuclear security.

Recognizing that biological threats are ubiquitous and often endemic, and that potential adversaries can acquire dangerous pathogens from naturally occurring outbreaks or non-secured laboratories, the DoD CTR Program allocates significant resources to the Cooperative Biological Engagement Program (CBEP). The CBEP continues to stop threats successfully "at the source" by securing vulnerable laboratories housing pathogens of security concern, reducing the number of such laboratories, and preparing partners to detect and report disease outbreaks of security concern. As with the GNS Program, the CBEP supports bilateral, regional, and global U.S. Government efforts to promote biological security.

As an example of CBEP's bilateral engagement, in Iraq the CBEP worked to establish a National Biorisk Management Committee (NBMC), an inter-ministerial body authorized by the Prime Minister and chaired by the Director General for Public Health at the Ministry of Health in Baghdad. The Committee establishes and implements safe and secure biorisk-management protocols at the national level within Iraq, and includes representatives from national ministries as well as the Kurdistan Regional Government (KRG). Additionally, to enhance the speed and accuracy of disease detection and reporting, regardless of the source of the outbreak, the CBEP deployed or is in the process of deploying the Electronic Integrated Disease Surveillance system (EIDSS) at 49 sites in Baghdad, southern Iraq, and the KRG-controlled area. Finally, the CBEP continues to connect Iraqi biological scientists to international subject matter experts and U.S. and global research institutions through scientific fellowships, which play an important role in developing relationships and advancing the state of ethical science in Iraq.

A distinguishing feature of the CBEP's regional engagement is the success of the program in Southeast Asia in leveraging strong existing regional networks, including the Association of Southeast Asian Nations (ASEAN), the Asia-Pacific Biosafety Association (APBA), WHO Western Pacific Regional Office (WPRO), and the WHO Southeast Asia Regional Office (SEARO), to reach a broad audience of stakeholders and standardize best practices and encourage information sharing. Through these multi-lateral networks, the CBEP is able to enhance the region's biosecurity and biosafety capabilities and reduce the risk of accidental or intentional release of pathogens of security concern. Across the region, the CBEP's efforts are coordinated with and complemented by efforts of the Proliferation Preventing Program (PPP), whose efforts improve WMD-detection capabilities. In the Philippines, the PPP completed construction of the National Coastal Watch Center (NCWC), an interagency center to promote a whole-of-government approach to the Philippines' maritime WMD proliferation-prevention mission that is well integrated with its national maritime security architecture.

DoD's efforts to reduce biological threats overseas, including through the CBEP, directly support the goals of President Obama's Global Health Security Agenda (GHSA), which includes a commitment to work with at least 30 partner countries to deepen their commitment to health

security. The CBEP aims to improve partners' biosafety and biosecurity practices and capabilities, along with their ability to detect and report outbreaks of diseases of security concern rapidly, irrespective of whether those outbreaks are natural or malevolent. In an increasingly interconnected world, cooperation among health, agriculture, security, development, and other sectors to tackle biological threats and ensure that dangerous pathogens are not accessible to terrorists is paramount. Strengthening the bridge between the public health and national security communities at home and abroad is essential to reduce the threats posed by the intentional, accidental, or natural spread of pathogens and diseases of security concern, and potential terrorist acquisition and use of biological weapons. DoD remains focused on reducing biological threats to U.S. forces and the U.S. homeland, working closely with the CDC and USAID, along with other domestic and international partners, to ensure assistance is provided in the most holistic, effective and efficient manner.

DoD also continues to work to raise the barriers to acquiring WMD material through the Proliferation Security Initiative (PSI). Over the 13 years since its inception, PSI has brought together 105 nations to build political will to stop the trafficking of WMD, delivery systems, and related materials. Through supporting and participating in numerous exercises and leadership in PSI's Operational Experts Group, DoD works with partners to address all aspects of the proliferation threat from rapid, national-level decision-making to operational tactics and procedures. This past year, I had the opportunity to attend Leading Edge 15, our regional PSI exercise held in the U.S. Central Command Area of Operations (AOR). OSD Policy also participated in Exercise MARU 15, the second in a series of annual Asia-Pacific PSI exercises hosted by a rotating group of critical PSI partners. The 2016 Asia-Pacific exercise will be hosted by Singapore, then Australia in 2017, Japan in 2018, and the Republic of Korea in 2019. To keep pace with proliferators who continually adapt, PSI itself is evolving, from an activity focused heavily on preparing for at-sea interdictions, to one that highlights the critical role that customs, treasury, and diplomatic tools play in detecting and preventing WMD proliferation. In an era of evolving WMD-related threats, PSI engagements underscore that interdiction is a whole-of-government effort that requires both strong institutional capacity and political will.

International regimes that bring together like-minded nations are also critical elements of the U.S. Government's efforts to prevent the development and proliferation of WMD materials. For example, the NPT, the BWC, and the CWC remain essential foundations for the pursuit of nonproliferation and disarmament goals. In close partnership with DOS, we depend on these and related regimes as essential and evolving tools in countering WMD.

Finally, DoD plays an important role in U.S. policy toward Iran, including supporting U.S. efforts to implement the Joint Comprehensive Plan of Action (JCPOA). This agreement demonstrates the value of diplomacy, underwritten by military power, in devising solutions to some of the world's most challenging nonproliferation concerns. My office will remain vigilant in supporting interagency and international efforts to monitor and prevent Iran from acquiring WMD-related material.

CONTAIN AND REDUCE THREATS

Despite our best efforts to prevent malevolent actors from acquiring WMD, we must nevertheless contend with threats posed by the acquisition of WMD-related material. In addition to ensuring appropriate U.S. capabilities, we must also ensure that we have partners around the world capable of mitigating such threats at and within their borders. DoD has key partnerships with NATO, the Republic of Korea, and other allies and partners to ensure we maintain an understanding of emerging threats and interoperable capabilities to meet them.

The DoD CTR Program is DoD's preeminent program for building partner capacity to counter WMD threats. Over the past year, the DoD CTR Program has advanced the capabilities of a number of key partners to detect and interdict WMD material – in particular Ukraine, Jordan, and Lebanon.

Although the level of fighting in eastern Ukraine has lessened, Russia has not stopped its destabilizing actions in eastern Ukraine and continues to occupy Crimea illegally, challenging Ukraine's ability to prevent WMD proliferation across its borders. In 2015, the DoD CTR Program completed equipping and training the Ukrainian State Border Guard Service (SBGS) to reconstitute counter WMD capabilities that had deteriorated following Russia's invasion of Ukraine and to establish control over the new administrative boundaries. We will continue to work with our partners in the SBGS and the Ministry of Interior to ensure that they are able to detect proliferation threats; prevent WMD attacks or attacks against nuclear, chemical, and biological facilities; and respond to WMD incidents.

Jordan continues to face proliferation threats from dangerous non-state actors on two borders – Syria on its north, and Iraq to its east. The DoD CTR Program has worked since 2013 to provide comprehensive training and equipment to the Jordanians to enable their military and civilian first responders to mitigate WMD-proliferation threats. The Jordan Border Security Program (JBSP) – an integrated surveillance, WMD detection, and interdiction system that runs along a 293-mile stretch of Jordan's borders with Syria and Iraq – is the centerpiece of this support. The JBSP made significant headway in 2015, with the two longest stretches reaching completion. The JBSP was extended in FY 2015 to the Wadi Glades area, a 30-kilometer section of the Jordan-Syria border near the Golan Heights. Complementing the JBSP is a nuclear-security effort that the DoD CTR Program started with the Jordanian Armed Forces in 2014 to develop the capability to store and transport interdicted WMD material safely. The DoD CTR Program is working in close coordination with the U.S. Department of Energy to help Jordan establish a self-sustaining nuclear-security culture in the current and planned civil nuclear facilities.

Lebanon shares many of the same proliferation threats as Jordan along its border with Syria. In 2015, the CTR Proliferation Prevention Program (PPP) awarded a contract for a Lebanon Border Security Program that will provide the Lebanese Armed Forces (LAF) with an integrated command and control and surveillance system to defend the most vulnerable section of Lebanon's border with Syria. This effort is being fully coordinated with assistance provided to

the LAF by the United Kingdom, and it will complement other assistance provided by the DTRA CBRN Preparedness Program (CP2).

Consistent with the DoD Strategy for Countering WMD, the DoD CTR Program is seeking to assist partners proactively to confront emerging WMD-proliferation risks, such as in North Africa. In December 2015, Deputy Secretary of Defense Bob Work, with the concurrence of Secretary of State John Kerry, made a determination that an emerging WMD-proliferation risk exists in North Africa due to the use of dangerous chemicals as weapons in Iraq and Syria coupled with the growing encroachment of extremist groups. As a result, early in Fiscal Year 2016 the DoD CTR Program initiated proliferation-prevention cooperation with the Government of Tunisia along the Tunisia-Libya border, and in FY 2017 the Program intends to complete a border-surveillance system along the most vulnerable section of that border.

RESPOND TO CRISES

This element of the CWMD Strategy focuses on activities and operations to manage and resolve complex WMD crises, and thus incorporates diplomatic efforts to respond to WMD-related crises, kinetic action against hostile non-state actors who acquire WMD or materials of concern – and who we must assume would be prepared to use them, and ensuring that we and our partners are prepared to mitigate the effects of WMD use.

DoD will continue to support interagency diplomatic efforts aimed at WMD crisis management and response. While the Iranian government has decided to pursue diplomacy to resolve the international community's concerns over its nuclear program, the Democratic People's Republic of Korea (DPRK) continues to pursue its WMD programs. Its recent nuclear test underscores the importance of a well-coordinated international response. The DPRK is the only country in the world that has tested a nuclear device in the 21st century, and is a country that routinely threatens other nations with nuclear attack. The DPRK should not underestimate our resolve – we, along with many partners in the region and internationally, are fully committed to the peaceful denuclearization of the Korean peninsula. DoD will continue to make the necessary preparations to protect our security, defend our allies, and promote regional stability. We do not accept the DPRK as a nuclear armed state, and this latest test has only served to reaffirm this position.

The Ebola crisis, which ravaged West Africa beginning in March 2014, presented a biological threat of global significance. Although Liberia, Sierra Leone, and Guinea were by far the most acutely affected countries, the threat spread to Senegal, Nigeria, Europe, and the United States. As of January 2016, Ebola had taken more than 11,000 lives, with more than 28,000 suspected, probable, or confirmed cases. Although these numbers are devastating, they are, by orders of magnitude, less than what the World Health Organization (WHO) and CDC warned could have been reached if the international community had not mounted a serious and sustained response effort.

This was not just a public-health crisis; the outbreak posed a clear threat to stability and security in West Africa. The infrastructure strain caused by the prolonged and far-reaching outbreak

posed a significant risk to the stability of civil society and governance in West Africa. The intense focus on reducing Ebola's spread also detracted from the region's efforts to counter violent extremism. In addition, the large collection of Ebola samples from the outbreak and potential vulnerable storage of other pathogens presented a significant biological-security threat.

In cooperation with other interagency partners, particularly USAID and the CDC, the DoD CTR Program was able to respond quickly and effectively in support of broader U.S. and international efforts. Consistent with our statutory authorities, the DoD CTR Program procured and staffed transportable diagnostic laboratories and supported the staffing of existing laboratories to diagnose Ebola quickly and accurately in Liberia, Sierra Leone, and Guinea; supplied personal protective equipment, associated consumables, and laboratory equipment to the affected countries to prevent transmission to workers, including those returning to the United States; and provided support to the WHO to train workers, protect from infection, and prevent its spread.

As the Ebola epidemic recedes from the front pages and international support efforts diminish, we remain committed to ensuring that laboratory capabilities are transitioned to our host government partners in a sustainable manner. We are also working to ensure that Ebola samples are not vulnerable to theft or diversion. The DoD CTR Program will provide training to transition sustainable biosurveillance and diagnostic capabilities to the governments of Ebola-affected countries, will bolster preparedness levels of countries at risk for Ebola transmission, and will work to develop regional biosurveillance networks by leveraging the capacities of regional leaders. The overarching goal will be to ensure that these partners can detect, report, and manage outbreaks on their own.

Complementing the DoD CTR Program is the CP2, which works with partner nations to respond to and mitigate the effects of a CBRN incident. Section 1204 of the National Defense Authorization Act for Fiscal Year 2014 authorizes DoD, with the concurrence of the Secretary of State, to enhance the capability of military and civilian first-responder organizations to respond to WMD incidents. Section 1204 provides the authority for DTRA to use its Operation and Maintenance funds to assist partner nations to develop whole-of-government WMD defense preparedness and response capability.

DoD first exercised its Section 1204 authority in FY 2014 to provide WMD preparedness and response training to the military and civilian first responders of Jordan, Lebanon, and Turkey. In FY 2015, DoD expanded its use of Section 1204 authority to provide CBRN-response training and equipment to military and civilian first responder communities in Albania, Brazil, the Dominican Republic, Jordan, Kenya, Lebanon, Morocco, Philippines, Turkey, and Ukraine. Although the training focused on CBRN-incident preparedness and response, it also emphasized a whole-of-government approach to execute WMD incident operations effectively. In this fiscal year, DoD will continue to improve the WMD-preparedness and response capability of key partners, identified collaboratively with the Combatant Commanders and DOS.

CONCLUSION

Despite the accomplishments I have described above, which build upon numerous CWMD-related successes of the past, we must remain prepared against static *and* emerging WMD threats. We must anticipate that state and non-state actors will develop increasingly sophisticated methods to pursue, develop, or deploy WMD – in pursuit of an array of objectives. We will continue to work with and through our interagency and international partners to confront the threats posed by WMD at home and abroad. As WMD-related crises continue to emerge, your continued support for and funding in the areas described today are critical to our ability to understand, anticipate, and mitigate these threats.

Wendin Smith
Deputy Assistant Secretary of Defense, Countering Weapons of Mass Destruction

As Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction, Office of the Under Secretary of Defense for Policy (DASD/C-WMD), Dr. Wendin D. Smith is responsible for establishing policy and guidance to protect U.S. and Allied forces against chemical, biological, radiological, or nuclear attack from state or terrorist actors, as well as for preventing and countering global trafficking in WMD. As part of the C-WMD portfolio, she is responsible for policies aimed at helping partner countries build capacity in WMD defense and countermeasures. She also represents the Department's interests on counter proliferation and non-proliferation policy issues, including the Biological Weapons Convention, Chemical Weapons Convention, Nuclear Non- Proliferation Treaty, as well as on the Cooperative Threat Reduction Program and relevant United Nations Security Council resolutions.

Prior to her appointment as the DASD/C-WMD, Dr. Smith led strategic initiatives in defense and national security at the Scitor Corporation, to include initiatives such as unmanned systems, C-WMD, energy security, and related science and technology areas. Previously, at Booz Allen Hamilton, she supported Cooperative Threat Reduction programs for the Department's Defense Threat Reduction Agency (DTRA), including service as the contractor lead for the Biological Threat Reduction Program (now Cooperative Biological Engagement Program), and as project manager for the Strategic Offensive Arms Elimination program. She also supported several programs within the U.S. Departments of Energy's (DOE) National Nuclear Security Administration, to include the Second Line of Defense and Materials Protection Control & Accounting programs. Dr. Smith has also founded and operated two woman-owned consultancies, providing services in strategic planning, international market development, and regulatory compliance to clients in energy security, nuclear energy, as well as nonproliferation and arms control. In the mid- and late-1990s, while living in Moscow, Russia, Dr. Smith served as Director of the U.S. Information Agency's (USIA/USIS) American Center, and supported educational exchange programs under the Freedom Support Act.

Dr. Smith, a graduate of Dartmouth College, received her Ph.D. and Master of Arts in Law and Diplomacy from The Fletcher School of Law and Diplomacy at Tufts University, where she focused on International Security Studies and International Environment and Resource Policy. As an alumna, she was invited to serve on The Fletcher School's Board of Advisors. She has also served as the Co-Director, appointed by the College of Science, for George Mason University's Center for Energy Science and Policy (CESP).

Dr. Smith spent several years on exchange programs studying in Moscow, Russia (then-USSR), and at sea with the Sea Education Association, in cooperation with the Woods Hole Oceanographic Institute. She has lectured on and published in, national security, nonproliferation, environmental security, combating WMD, and related fields. Dr. Smith is fluent in Russian and conversational in German.

WITNESS RESPONSES TO QUESTIONS ASKED DURING THE HEARING

FEBRUARY 10, 2016

RESPONSE TO QUESTION SUBMITTED BY MR. LANGEVIN

Mr. MYERS. DTRA funds research in many areas highlighted by the Blue Ribbon Study Panel on Biodefense in its October 2015 report, including medical countermeasures, biosurveillance, decontamination and remediation, and coordination with civil authorities. DTRA does not fund research or measures to strengthen cybersecurity of systems with biological pathogen information, and does not maintain or manage these systems. DTRA concurs with the Blue Ribbon Panel that cybersecurity measures are important in safeguarding this information. DTRA personnel are familiar with the particular sensitivity of information related to biological pathogens and receive regular training in cybersecurity. We require physical protective measures for our electronic devices, monitor our systems for intrusion on a 24x7 basis, and continually upgrade our cybersecurity measures. [See page 11.]

RESPONSES TO QUESTIONS SUBMITTED BY MR. ZINKE

Dr. SMITH. Although Iran does not possess an ICBM, it has recently tested medium-range ballistic missiles (MRBMs). Following these tests, the U.S. Treasury Department, pursuant to E.O. 13382, designated 11 individuals and entities for sanctions involved in procurement on behalf of Iran's missile program. DOD will continue our efforts to address all threats posed by Iran, including the ballistic missile threat, through our partnerships and force presence in the region. [See page 16.]

Dr. SMITH. DOD does not have a role in the regulatory regimes of commercial industry of our foreign allies and partners. In the event of an incident releasing hazardous materials in Mexico, particularly an incident with the potential for spillover into the United States, the Department of Defense is prepared to support a U.S. Government effort to help the Government of Mexico in its response. [See page 18.]

QUESTIONS SUBMITTED BY MEMBERS POST HEARING

FEBRUARY 10, 2016

QUESTIONS SUBMITTED BY MR. WILSON

Mr. WILSON. The Army investigation into the inadvertent shipments of anthrax concluded that "no individual or institution was directly responsible," but noted "several findings related to scientific, institutional, and individual failures may have been contributing factors."

Can you give a status of corrective actions that are being put in place to prevent this type of error from occurring again?

Dr. HOPKINS.

- Army established a "Biosafety Task Force" led by Headquarters Department of the Army, consisting of over 50 senior scientists and leaders from Army, Navy, and Air Force organizations to comprehensively address the direction given by the Deputy Secretary of Defense and guidance in the OSD Comprehensive Review Report.
  - Sub-working groups were chartered to address: (1) Development of a Department of Defense (DOD) standard operating procedure (SOP) for the inactivation of anthrax spores (once the science basis has been established); (2) New processes and procedures for the Critical Reagents Program to better ensure safety, consistency, and quality; (3) Designation of the Secretary of the Army as the DOD Executive Agent for the Biological Select Agents and Toxins (BSAT) Biosafety function; (4) Examination of chains of command over BSAT holding labs; (5) Establishment of a DOD standing Peer Review Panel to review and approve SOPs and protocols dealing with BSAT; and (6) Examination of BSAT related workload in DOD.
  - The Army Office of the Surgeon General has been designated Executive Agent (EA) Responsible Official (RO) for biosafety.
  - The Army Biosafety Directive, which establishes policy and describes the roles, responsibilities, and missions and functions for the DOD BSAT Biosafety Program, has been drafted. Formal staffing is underway.
- On 15 January, 2016, the Department of the Army released the Dugway Anthrax AR–15–6 Report.
  - The 15–6 investigation team identified actions for the Secretary of the Army's consideration: directing additional research to address existing gaps in scientific knowledge, making institutional changes aimed at reducing the overall risk associated with working with biological materials, and holding certain personnel at Dugway Proving Ground (DPG), including the leadership, accountable for their failures to eliminate the culture of complacency and ultimately prevent additional mishaps from occurring in the future.
  - An effort is underway to address the gaps in scientific knowledge related to inactivation and viability testing.
  - The preponderance of the evidence supports that no individual or institution was directly responsible for the unauthorized shipment of low concentrations of viable B. anthracis.

Mr. WILSON. Are all of the investigation recommendations going to be implemented? What process will be used to ensure that any findings implemented are done effectively? Answer:

Dr. HOPKINS.

- Multiple reviews and investigations were undertaken by OSD and by the Army Biosafety Task Force to determine the root cause of the anthrax incident. All of the recommendations from these reviews have been addressed and either the action was taken or a path forward was established that will be tracked to completion by the EA RO.
- The EA RO is responsible for ensuring that corrective actions, once implemented, are effective and also for monitoring their continued effectiveness as the biosafety program evolves.

Mr. WILSON. Given the significant increase in the number of facilities handling these select agents and deadly pathogens over the last 10–15 years, what efforts is the Department taking to determine if work can be consolidated to reduce the facilities necessary?

Dr. HOPKINS. The Deputy Secretary of Defense has tasked the Secretary of the Army with assessing the optimal distribution of research, development, and production activities at the laboratories in support of the Chemical and Biological Defense Program mission. As a result, the Army Biosafety Task Force formed a working group to determine the optimal command and control alignment of Army laboratories and to determine the optimal workload distribution across Service laboratories. Based on working group recommendations, the Army will move the Life Sciences Division of the West Desert Test Center under the command and control of the Edgewood Chemical and Biological Center. Other recommendations to consolidate work among DOD laboratories are under further review.

Mr. WILSON. What is the DOD's plan to ensure that the medical countermeasures advanced manufacturing facility is fully utilized?

Dr. HOPKINS. The DOD plan is to coordinate and utilize the Advanced Development and Manufacturing (ADM) capability based on the needs of the Joint Force. DOD intends to establish the Medical Countermeasures (MCM) Advanced Development and Manufacturing (ADM) as a potential subcontractor for all DOD medical countermeasure efforts. MCM developers will have the opportunity to use the capability, either in its entirety or in part, to fulfill contracts with the DOD Chemical and Biological Defense Program (CBDP). Requirements and capabilities will be assessed by the Government on a case by case basis for each medical countermeasure program prior to award, and the decision regarding the extent to which the MCM ADM is employed will be made on the basis of "best value to the Government." Although the MCM ADM has been designated by the Deputy Assistant Secretary of the Army (Procurement) as a "preferred source", medical countermeasure developers with strong in-house manufacturing capabilities can choose whether to use the MCM ADM. However, the MCM ADM will provide better sustainment for DOD MCM efforts because it will avoid the need for multiple manufacturing sites to be used at small scale.

Mr. WILSON. Will the Department be requesting O&M funds to sustain the facility?

Dr. HOPKINS. No. The intent is for the DOD MCM ADM to be sustained through use by the individual CBDP MCM development efforts.

Mr. WILSON. Has a roadmap been developed to plan utilization of this facility?

Dr. HOPKINS. Yes.

Mr. WILSON. Can you discuss any potential utilization by Interagency partners?

Dr. HOPKINS. Once fully operational, the DOD MCM ADM facility will be made available for additional production capacity in times of emergency to meet the needs of the Department of Health and Human Services (DHHS). DOD will work through the Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) to coordinate MCM development, production, and availability across the Interagency. DOD's coordination efforts have been assessed favorably by the Government Accountability Office (GAO): "DOD's efforts to coordinate with the Department of Health and Human Services and the Department of Homeland Security align with best practices GAO has identified for collaborating across agency boundaries"—GAO 14–442

Mr. WILSON. Specifically, how can the DOD's medical countermeasures advanced manufacturing facility be utilized to respond to emerging threats?

Dr. HOPKINS. The DOD MCM ADM will be available for use by DOD's medical countermeasure programs to conduct research to counter emerging threats. This state-of-the-art facility will develop and manufacture MCMs for the DOD faster and more efficiently than most current production processes. In the event of an emerging threat (Ebola-like scenario) where the Department had potential candidates in the pipeline, these candidates could use the ADM in an attempt to speed up the delivery time. The disposable, single-use manufacturing equipment will allow for rapid configuration, which reduces downtime between production runs. The facility's flexibility will enable the capability to rapidly assess potential MCM candidates.

Mr. WILSON. Can you give us a quick update on the timeline for U.S. Chemical Weapons Destruction Operations at the last two remaining sites in Colorado and Kentucky? Are we meeting our International Treaty Obligations?

Dr. HOPKINS. The Pueblo Chemical Agent-Destruction Pilot Plant located in Pueblo, Colorado is scheduled to begin chemical weapons destruction operations in or before June 2016, and complete operations by November 2019. The Blue Grass Chemical Agent-Destruction Pilot Plant located in Richmond, Kentucky is scheduled to begin chemical weapons destruction operations by April 2020, and complete operations by September 2023.

The United States is meeting our obligations to destroy our chemical weapons stockpile as required by the Chemical Weapons Convention. We remain fully com-

mitted to safely completing chemical weapons destruction by the December 31, 2023, congressionally-mandated destruction deadline.

QUESTIONS SUBMITTED BY MR. SHUSTER

Mr. SHUSTER. What is DTRA doing to leverage existing information management systems, such as the NGB's Civil Support Team (CST) Information Management System (CIMS), to ensure such prior systems investments are efficiently utilized by follow on forces like the NGB's Chemical, Biological, Radiological, Nuclear, and High explosive Enhanced Response Force Package (CERFP) and Homeland Defense Response Force (HRF). Do you have an investment plan and timeline for deployment of this system? How will systems like CIMS be incorporated into the NGB's overall information management architecture and have you seen an improvement in the timeliness and quality of information sharing through use of these systems?

Dr. HOPKINS. Although specific questions related to the NGB's CIMS are best answered by the NGB's Combating Weapons of Mass Destruction Division, DTRA does have a strategic partnering understanding with the NGB to support its Civil Support Teams to fill any gaps. In DTRA's role as the lead organization for the National Countering WMD Technical Reachback Enterprise, the Operational Information Management System (OIMS) provides web-enabled operational work space to include secure CST portal pages, Request For Information processing and management, team status reporting, and other capabilities and associated training. DTRA provides support for all 57 CST's as well as the various CERFPs, and some discussions with the HRF.

DTRA continues to provide software (e.g, Mobile Field Kit) and modeling capabilities (e.g., Hazard Prediction and Assessment Capability) to the NGB's information system configuration manager. DTRA also provides technical conditions in support of integration of the software into the CST communications architecture and potential integration into future NG CIMS. Pilot CST teams have demonstrated a reduction in the time it takes to complete certification evaluations by over 50% simply by employing Mobile Field Kit over conventional methods.

Mr. SHUSTER. In order to ensure the most efficient and transparent use of taxpayer monies, it is critical the funds are spent on mission-centric activities. Would you agree that excessive administrative, overhead and/or pass through fees in excess of 10% for "program management" add nothing more than unnecessary extra costs? Would you also agree that administrative costs need to be minimal so that the majority of the money will be spent on the best possible product for the services in building, programming, fielding, testing, implementing, and providing technical expertise and not wasting government or tax payer dollars on paying high administrative costs and adding additional costs and layers of bureaucracy? Would you support an administrative cap of 10% being imposed for pass through entities?

Dr. HOPKINS. Oversight of administrative costs in contracting is not an ASD(NCB) function, so we received input from the Director of Defense Procurement and Acquisition Policy (DPAP), Ms. Claire Grady, who shares the following: The Department is always concerned with excessive administrative, overhead and/or pass-through fees. It is imperative that the acquisition team determine the appropriate amount of administrative, overhead and pass-through required for each contracted capability, as well as an appropriate compensation for such. Such costs should be as minimal as possible while still ensuring effective program management. Capping these costs at any arbitrary amount limits the acquisition team's capabilities to evaluate and appropriately manage risk contained within these categories as the vendor strives to manage and provide the required capability in accordance with the contract.

Mr. SHUSTER. What is DTRA doing to leverage existing information management systems, such as the NGB's Civil Support Team (CST) Information Management System (CIMS), to ensure such prior systems investments are efficiently utilized by follow on forces like the NGB's Chemical, Biological, Radiological, Nuclear, and High explosive Enhanced Response Force Package (CERFP) and Homeland Defense Response Force (HRF). Do you have an investment plan and timeline for deployment of this system? How will systems like CIMS be incorporated into the NGB's overall information management architecture and have you seen an improvement in the timeliness and quality of information sharing through use of these systems?

Mr. MYERS. Although specific questions related to the NGB's CIMS are best answered by the NGB's Combating Weapons of Mass Destruction Division, DTRA does have a strategic partnering understanding with the NGB to support its Civil Support Teams to fill any gaps. In DTRA's role as the lead organization for the National Countering WMD Technical Reachback Enterprise, the Operational Information

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Mr. MYERS. DTRA concurs with the input received from the Director of Defense Procurement and Acquisition Policy (DPAP), Ms. Claire Grady, who shares the following: The Department is always concerned with excessive administrative, overhead and/or pass-through fees. It is imperative that the acquisition team determine the appropriate amount of administrative, overhead and pass-through required for each contracted capability, as well as an appropriate compensation for such. Such costs should be as minimal as possible while still ensuring effective program management. Capping these costs at any arbitrary amount limits the acquisition team's capabilities to evaluate and appropriately manage risk contained within these categories as the vendor strives to manage and provide the required capability in accordance with the contract.

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Dr. SMITH. I concur in Mr. Myers' response.

Mr. SHUSTER. In order to ensure the most efficient and transparent use of taxpayer monies, it is critical the funds are spent on mission-centric activities. Would you agree that excessive administrative, overhead and/or pass through fees in excess of 10% for "program management" add nothing more than unnecessary extra costs? Would you also agree that administrative costs need to be minimal so that the majority of the money will be spent on the best possible product for the services in building, programming, fielding, testing, implementing, and providing technical expertise and not wasting government or tax payer dollars on paying high administrative costs and adding additional costs and layers of bureaucracy? Would you support an administrative cap of 10% being imposed for pass through entities?

Dr. SMITH. Given that my office does not have responsibilities for program management, I defer to ASD Hopkins' sentiment with respect to the program-management cap. My understanding is that a Services Requirements Review Board (SRRB) is currently being conducted to identify the true service contractual requirements. This effort should afford additional opportunities for efficiencies and reductions.

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