

**DHS COORDINATION OF NUCLEAR DETECTION
EFFORTS, PART I & II**

HEARING

BEFORE THE

**SUBCOMMITTEE ON PREVENTION OF
NUCLEAR AND BIOLOGICAL ATTACK**

OF THE

**COMMITTEE ON HOMELAND SECURITY
HOUSE OF REPRESENTATIVES**

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DHS COORDINATION OF NUCLEAR DETECTION EFFORTS, PART 1

Tuesday, April 19, 2005

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON PREVENTION OF NUCLEAR
AND BIOLOGICAL ATTACK,
SELECT COMMITTEE ON HOMELAND SECURITY,
Washington, D.C.

The subcommittee met, pursuant to call, at 9 a.m., in Room 210, Cannon House Office Building, Hon. John Linder [chairman of the subcommittee] presiding.

Present: Representatives Linder, Lungren, McCaul, Cox (ex officio), Langevin, Markey, Dicks, Harman, Norton, Christensen and Thompson (ex officio).

Mr. LINDER. The committee will be in order. We are here for a discussion of the Domestic Nuclear Detection Organization, soon to be renamed, we hope. Here comes our Ranking Member.

I would like to welcome our distinguished panel today who, it is to be hoped, will help us to better understand how to organize the Federal Government to prevent the release of a nuclear device in a U.S. city. This was once an unimaginable threat, but it is now real, and it is not going to go away. Should America need to respond to such attack, the Federal Government will have failed the American people.

The Homeland Security Act of 2002 requires the Department of Homeland Security to coordinate the government's efforts to identify and develop countermeasures to radiological and nuclear terrorist threats. It is obvious, however, that the full task of protecting America against nuclear terrorism is not just centered on the Department of Homeland Security, but rather is shared by several entities including the Departments of Defense, Energy, Justice and State. It strikes me that with all the efforts in nuclear non-proliferation and counterproliferation conducted by the government, it remains unclear how these efforts are being coordinated, let alone who is in charge.

These are just a few of the many answers we will seek from today's panel of witnesses. Their charge today is to help us understand the rules and responsibilities of the principal partners and to provide us with any suggestions to better mitigate the nuclear threat.

The President's fiscal year 2006 budget has a request of 227 million for this program, which was recently placed by Secretary Chertoff as a high priority within his office. Missions of the new office include detecting and preventing attempts to import or use

nuclear or radiological materials; working with Federal, State and local governments and the private sector to coordinate nuclear detection; developing and deploying detection equipment at ports of entry, transportation routes, critical infrastructure and in urban environments. In addition, the Bush administration stated that through this office our overseas and domestic programs to defeat nuclear terrorism will work together to contribute to the Nation's nuclear defense.

Clearly, protecting the Nation involves a multifaceted approach that begins with efforts overseas to reduce the inventory of nuclear weapons and material and to prevent them from falling into the hands of terrorists, which is in part managed by the Department of Defense's Cooperative Threat Reduction Program. The Department of Energy also is responsible for securing those materials via the Global Threat Reduction Initiative. Similarly, nonproliferation efforts are also managed by the State Department's Proliferation Security Initiative.

Protecting our borders is another facet of preventing nuclear terrorism. Currently overseas efforts to screen cargo for nuclear materials are managed by the DOE through its MegaPorts program. DHS has also led the effort to place radiation monitors at this Nation's most vulnerable points of entry.

Given the intent of terrorists, the accessibility of nuclear material, and the unlimited ways in which terrorists could smuggle a weapon or nuclear material through America's borders, a nuclear terrorist attack is highly conceivable. I agree with the January 05 report that stated that the most worrisome trend has been an intensified surge by some terrorists groups to obtain weapons of mass destruction. I intend to see to it that this committee takes this threat very seriously. We plan to be vigilant and ensure that the DHS and other responsible departments are working constructively toward measurable actions to prevent a nuclear incident in the United States.

Ultimately, it will fall on this government to reject the usual bureaucratic barriers and turf battles between competing Federal agencies in the area of homeland security. If it fails on that front, it will, in the end, fail in its primary responsibility, which is to protect the people of this country. As such, we all owe it to America's public to work together and to mitigate this threat as effectively as possible.

Mr. LINDER. I now recognize my Ranking Member Mr. Langevin for any statement he would like to make.

Mr. LANGEVIN. Thank you, Mr. Chairman, and I want to take this opportunity to recognize our distinguished witnesses today and thank them for being here this morning. In particular, I am pleased to see my former professor Dr. Allison at the witness table.

Dr. Allison, welcome. And I look forward to your testimony, and I am actually reading your book right now, Nuclear Terrorism: The Ultimate Preventable Catastrophe, and I highly recommend it to the committee.

But in this post-9/11 era, preventing terrorist groups obtaining a nuclear weapon must be our government's number one national security priority. Given the advancement of technology and the stated intentions of Al-Qa'ida and like-minded groups, the possibility that

a terrorist will obtain a nuclear weapon is very real, and one that we ignore at our peril.

This morning's hearing will focus on the Department of Homeland Security's latest attempt to address the nuclear terrorist threat, proposed Domestic Nuclear Detection Office, or DNDO. According to Secretary Chertoff, the DNDO will be the primary office of the U.S. Government to develop a global nuclear detection architecture including the development and deployment of a domestic nuclear detection system. And while I applaud Secretary Chertoff for taking this important first step, I do have concerns about whether the DNDO as proposed will be able to adequately execute its stated missions.

I look toward hearing the witnesses share their expertise on the following issues: Given the fact that DHS's Science and Technology Directorate has spent time and effort on nuclear detection, what value added will the DNDO bring to the Department?

Second, is the DNDO as proposed an adequate last line of defense, and if not, what measures need to be taken to ensure they can prevent a nuclear weapon or components from entering the country?

And also, what are the critical areas that the DNDO must address immediately to begin the process of mitigating the nuclear terrorist threat?

Now, I agree with Dr. Allison's assessment that nuclear terrorism is a preventable catastrophe, but if we continue to move at the pace we are moving, we increase the chances that our country will not be as secure as it can and must be from the deadliest of all potential attacks. And I think today's hearing will help us better understand how the DNDO should be set up and what its priorities should be, which will be important as we move forward with authorizing legislation.

I must, however, take this opportunity to express my disappointment with the pace and process being employed on this issue. With the markup on DNDO legislation scheduled for tomorrow, I fail to see how we can possibly incorporate good ideas and significant concerns that may come out of the hearing today or tomorrow, and I think all of the members of this subcommittee would be better served by a process that allows for meaningful reflection and input on the issues and the legislation before us.

But again, I do want to thank all of our witnesses this morning, and I look forward to your testimony. Thank you Mr. Chairman. I yield back.

Mr. LINDER. Thank you, Mr. Langevin.

The Chair now recognizes the gentleman from California, the Chair of the full committee, for a comment.

Mr. COX. Thank you, Mr. Chairman.

I want to welcome our distinguished panel of witnesses. This is a very timely and important hearing. I join you, Mr. Chairman, in welcoming three men who are going to help us understand better not only the threat of nuclear terrorism, but, more importantly for the purposes of today's hearing, the way in which the Department of Homeland Security should organize itself to address this threat.

Preventing terrorists from ever gaining the capability to detonate a nuclear weapon is of utmost importance to our Nation. The use

of a nuclear device by terrorists is something that this committee and our country can never accept. The Homeland Security Act of 2002 requires the Department of Homeland Security to lead the United States Government's efforts to develop countermeasures to terrorist nuclear threats. The Department and our government have made progress in this area since 2002, but coordinating these efforts across the country and around the globe remains a significant challenge.

In his fiscal year 2006 budget, President Bush has proposed the creation of a Domestic Nuclear Detection Office within the Department of Homeland Security. And last week Secretary Chertoff notified me and this committee that he intends to establish such an office with the Director reporting directly to him. The President's 2006 budget has set aside nearly a quarter billion dollars for this proposed office. By design it would coordinate U.S. efforts to prevent terrorist organizations from smuggling nuclear materials for a nuclear weapon into our country.

It is clear that effectively protecting our Nation from a terrorist nuclear threat requires not only domestic detection efforts, but, indeed, global coordination, and one of the questions that I hope we can address at today's hearing is whether the proper focus of the Department of Homeland Security is on a Domestic Nuclear Detection Office focused on the deployment of technology in our country, or rather, whether such deployment should be part of an overall global effort that is focused on arresting the development of these terrorist capabilities as far overseas as is possible.

Mr. Chairman, again, thank you for convening this hearing, and I look forward to the testimony of our witnesses.

Mr. LINDER. I thank the gentleman.

Does the gentleman from Mississippi seek to make a statement?

Mr. THOMPSON. Yes.

Mr. LINDER. Okay.

Mr. THOMPSON. Thank you, Mr. Chairman. And I would like to welcome our panel of distinguished witnesses for this hearing this morning.

Preventing terrorists from obtaining nuclear weapons should be a priority for our Nation and for our government, a priority that cannot be ignored or put off until tomorrow. If we are to deal with the threat of nuclear terrorism properly, our Nation needs a layered defense. That first layer requires securing weapons-grade nuclear material at the source, and the second requires that adequate detection systems and response protocols are in place.

Unfortunately, the Bush administration has not taken this threat seriously enough and is not aggressive enough in implementing either line of defense. Today we will look at the administration's latest proposal on that front to create a Domestic Nuclear Detection Office within the Department of Homeland Security.

I would like to hear from the panel of witnesses on this proposal. Specifically, I am interested in the answers to the following questions: Will the proposed DNDO, as it is called, have the resources and capabilities to protect our Nation against nuclear terrorism? What should be the level of involvement of other Federal agencies in the DNDO? Does the proposal provide for that involvement? Is the Information Analysis Directorate robust enough to provide

DNDO with the intelligence support it needs? I have my doubts. But I hope you can shed light on this also. What measures can be taken at our ports and border crossings to deter terrorists from bringing in nuclear weapons?

In closing, I must say that I agree with your assessment, Dr. Allison, that the threat of nuclear terrorism is a challenge to our will and conviction, not our capabilities. In addition to that, I want you to also speak on whether or not the private sector is being utilized to its fullest advantage in helping us deal with that. I have talked to different members of the private sector, and they would love to participate more, but I would love to hear from your testimony. We must move with a great sense of urgency to make our country more secure from the gravest of all threats facing our country.

I yield back.

Mr. LINDER. Thank the gentleman.

In keeping with the rules of our full committee, if any other member seeks to make a statement, they may do so in writing. We will make it part of the record.

We turn now to our witnesses in the first panel. Dr. Graham Allison is the director of the Belfer Center for Science and International Affairs at Harvard University. In the first term of the Clinton administration, Dr. Allison served as Assistant Secretary of Defense for Policy and Plans, where he coordinated DOD strategy and policy toward Russia, Ukraine and other states of the former Soviet Union.

Dr. Fred Iklé is a distinguished scholar at the Center For Security and International Studies. Dr. Iklé was formerly the Under Secretary of Defense for Policy during the Reagan administration. He recently served on the Defense Science Board's Task Force on Preventing and Defending Against a Clandestine Nuclear Attack.

Colonel Randy Larsen is the CEO of Homeland Security Associates. Colonel Larsen previously served as the founding director of the Institute For Homeland Security and the chairman of the Department of Military Strategy and Operations at the National War College.

Welcome, all.

Dr. Allison, you may begin.

STATEMENT OF GRAHAM ALLISON, DIRECTOR, BELFER CENTER FOR SCIENCE AND INTERNATIONAL AFFAIRS, HARVARD UNIVERSITY

Mr. ALLISON. Thank you very much. It is a great honor to be here.

Mr. LINDER. Is your microphone turned on?

Mr. ALLISON. Sorry. Is that better?

I brought a short written statement, just one page. If they could—did you hand it around to the Members, please, sir? I gave it to the staffer here. You did? Yes. Okay.

Just three questions as a way of getting started.

I appear here as an individual, not on behalf of any organization that I have been associated with in the past or currently, and I commend the committee for your seriousness about addressing this issue.

I would say as a way of just being brief about it that there are three core questions, and I try to identify them here. First, were President Bush and Senator Kerry right when they answered the question in the first of the Presidential debates, what is the single most serious threat to American national security? They both said nuclear terrorism, and I believe they both got it exactly right. Vice President Cheney actually picked up this theme as a centerpiece of his stump speech in the last month of the campaign. And here is what he said, stumping around Ohio, the State from which my wife comes. He said, quote, the biggest threat we face now as a Nation is the possibility of terrorists ending up in the middle of one of our cities with deadlier weapons than have ever been used against us before, capable of threatening the lives of hundreds of thousands of Americans. And then here is the punchline. That is the ultimate threat. For us to have a strategy that is capable of defeating that threat, you have got to get your mind around that concept, close quote.

So I would say the place to start with respect to this subject is the Vice President's good suggestion that to have a strategy for defeating it, you have got to get your mind around the concept. And the place I suggest to start is by thinking about a nuclear bomb going off in one of our cities. And I gave you, just for fun, a little target chart that comes from the Website that is associated with this book on nuclear terrorism that I have published. It is called nuclearterrorism.org. You can put your Zip code into it and see what the bomb that Dragon Fire warned was in New York City just a month after 9/11 would do in your own neighborhood.

Did all the Members get copies? Congressman Cox, have you got them? Okay. Great.

You all are familiar with this, but I think the point is that it seems so abstract that one ought to think about it actually occurring and ask what it is we wish we would have done previously. And if it were to occur for the absence of something that we could credibly have done, you know, what excuse are we going to offer?

So I would say that is actually the right place to start, and what I try to do in this book on nuclear terrorism is help us as ordinary thinking citizens get our minds around this concept in order to have a strategy, a strategy that will ultimately, I think, be successful if we pursue it to the point of reducing the likelihood of such a disaster to nearly zero. So that is point one.

Point two. In a serious strategy to prevent nuclear terrorism, where is the point of the greatest leverage? And a number of you have already spoken to this point in your initial statements and in your previous hearings. The point of greatest leverage strategically is to lock down and eliminate weapons and materials at the source. As Senator Nunn rightly says, that is the place where it is hardest for the terrorists and easiest for us. Every mile you get away from the source, it gets easier for the terrorists and harder for us.

In this nuclear terrorism book, I quote former Senate leader Howard Baker, whom I served with on the Baker-Cutler Task Force that issued a report in the end of 2000, beginning of 2001. And Senator Baker, who was not previously associated with this issue, chaired this committee and visited Russia and the former Soviet Union on several occasions, and he testified to the Senate For-

eign Relations Committee, quote, it really boggles my mind that there could be 40,000 nuclear weapons, or maybe even more, in the former Soviet Union poorly controlled and poorly stored, and that the world isn't in a near state of hysteria about this danger, close quote. This is on page 9 of the book.

Now, Senator Baker is not a hysterical person, you can be sure, but looking at the facts, he says, rightly in my view, well, here we are now, as I report in the book, this is now as of the end of the first term of the Bush administration, 13 years after the end of the former Soviet Union, 12 years into Nunn-Lugar, where do we stand in terms of performance? And on Page 147 I say, and this is from DOE evidence, we are less than half the job done of securing weapons and material at the source in the former Soviet Union, quote, leaving 44,000 potential nuclear weapons' worth of highly enriched uranium and plutonium vulnerable to theft, so less than half the way done at this point.

I would say, as several of the Members have suggested, that is an unacceptable outcome, and that, in terms of a strategy, we should look at all the points of leverage, and the point of greatest leverage is locking down at the source.

Point three, where does the specific topic here today rank? And the question of improving technological capabilities for detection and identification of the source of nuclear weapons or fissile material, where does that rank in a multilayered, 360-degree strategy for preventing nuclear terrorism?

I myself am a very conservative person. I believe that as a country we should have a very conservative posture with respect to defense. We should have all layers that we can appropriately buy, and all azimuths, all degrees in which we are protecting ourselves.

So while I do not believe that detection and identification ranks anywhere close to importance in terms of locking down and securing and eliminating and preventing production of nukes, so in an overall strategy this is a level three topic rather than a level one, I would say that it is an important topic, a very important topic.

And if I could just make one final point. Between identification of a bomb or the radioactive debris that emerge or that remain after a bomb on the one hand, and on the other, detecting radioactive material that may be coming into the country, the first nuclear forensic, as it is called, that allows one to appropriately attribute to the source the source of a bomb that went off in one of our cities seems to me to be again, in terms of relative importance as the question was asked, much more important. And this becomes vitally important today as we think about the story of North Korea.

If North Korea sells plutonium, which it is currently making, to bin Laden, and bin Laden brings plutonium to Washington, and a nuclear bomb destroys the Capitol, we need to know for sure what was the source of that material. And we should now, I believe, be adopting a very aggressive deterrent strategy with respect to that, in effect saying what John Kennedy said during the Cuban missile crisis, which is it would be the policy of our government to regard a bomb that explodes on our territory as if it were launched by the party, particularly North Korea, that was the originator of the material, and that we would respond with a full retaliatory effort.

So I think this is a very important topic, and I think this organization that is being stood up is a very important piece of this. But I am trying to put it in a larger context.

Mr. LINDER. Thank you, Dr. Allison.

[The statement of Mr. Allison follows:]

PREPARED STATEMENT OF DR. GRAHAM ALLISON, DIRECTOR, BELFER CENTER,
SCIENCE AND INTERNATIONAL AFFAIRS, HARVARD UNIVERSITY

HOUSE OF REPRESENTATIVES*

The Domestic Nuclear Detection Office

1. Were President Bush and Senator Kerry correct during the first presidential debate of last fall's campaign when they answered the moderator's question "what is the single most serious threat?" **Both answered:** nuclear terrorism. They answered correctly.

2. In a serious strategy to prevent nuclear terrorism, where is the point of greatest leverage? **Answer:** locking down and eliminating weapons and materials at the source. In Senator Sam Nunn's felicitous formulation, "Acquiring weapons and materials is the hardest step for terrorists to take, and the easiest for us to stop. By contrast, every subsequent step in the process is easier for the terrorists to take, and harder for us to stop."

3. Where does improved technological capability for detection and identification of the source of nuclear weapons or fissile material rank in a multi-layered, 360 degree strategy for preventing nuclear terrorism? **Answer:** while not the most important, nonetheless an important layer in any serious multi-layered defense.

TECHNOLOGY FOR NUCLEAR ACCOUNTABILITY¹

GRAHAM ALLISON

Scenario 1: If North Korea launched a nuclear-armed missile that devastated an American city, how would the U.S. government respond? The state-sponsored attack would fit within the Cold War paradigm. The certain American response would be an overwhelming retaliation aimed at destroying Pyongyang, Kim Jong Il's known nuclear and missile programs, and North Korea's million-man army. Such a response would result in enormous collateral damage killing millions of North Koreans. Despite reservations about the morality of such a response, Cold War nuclear doctrine recognized—and accepted—unintended deaths of innocents. Whomever occupied the White House during such a nuclear attack would understand this also.

Scenario 2: If North Korea were discovered to have wittingly sold a nuclear bomb to Al-Qa'ida, who smuggled the weapon undetected to destroy an American city, how would the U.S. government respond? Through the prism of a post-nuclear 9/11, if such a redline were crossed today, the U.S. government would launch an overwhelming response against North Korea.

Scenario 3: Now imagine a nightmare in which a nuclear bomb is smuggled into the U.S. by an unknown terrorist group and detonated in Manhattan or Los Angeles killing hundreds of thousands of Americans, but the U.S. government is uncertain where the bomb came from and who delivered it.

The logic of deterrence requires a deterrer and an identified deterree. In Henry Kissinger's formula: "Deterrence requires a combination of power, the will to use it, and the assessment of these by the potential aggressor. Moreover, deterrence is the product of those factors and not the sum. If any one of them is zero deterrence fails." An adversary with no known return address might calculate it could escape retaliation. In Scenario 3, as an American city lies smoldering, if Osama bin Laden announced that he had ordered the action, how would the U.S. respond? If the American government knew where bin Laden was, it would already be there.

The terrorist nuclear weapon that destroyed an American city, or the material from which the bomb was made, would almost certainly have originated in a state. Fortunately, producing highly-enriched uranium or plutonium—the essential ingredients of a nuclear bomb—requires a multi-billion dollar, multi-year undertaking beyond the capability of non-state terrorists. After a nuclear 9/11, the U.S. government

* Graham Allison is Director of the Belfer Center for Science and International Affairs at Harvard University. He served as Special Advisor to the Secretary of Defense under President Reagan and as Assistant Secretary of Defense under President Clinton.

¹ Draft article pending publication in *Technology Review*—not for circulation.

will be eager to exact swift vengeance. But against whom? It must first determine who was responsible for the attack. Did a state make and deliver the bomb, or willingly sell it to terrorists who did? The weapon could have been stolen from someone who had no intention of losing. Indeed, the material could conceivably have come from American stockpiles. In the first instance, identification would provide a bulls-eye for overwhelming retaliation. In the second, the certainty that the weapon was stolen from a Russian or Pakistani arsenal would generate a demand for the immediate global lock-down of all nuclear weapons and materials.

The technological prerequisite for rethinking today's unthinkable is nuclear forensics: the ability to identify the bomb's source from radioactive debris left after an explosion. Building on Cold War techniques, the Pentagon has developed new methods to collect samples from ground zero of a blast, measure such data as isotopic ratios and the efficiency of the fuel burn in the detonation, and compare that information to known nuclear databases to determine the origin of the materials involved in the attack.

Much is already known about foreign nuclear materials, collected from Cold War military tests, commercial transactions, scientific exchanges, and covert means. But recent allegations about the uranium hexafluoride Libya turned over when it renounced its nuclear weapons program illustrate gaps in our knowledge. The U.S. intelligence community believes that North Korea was the source. But according to informed press reports, they reached that determination by the process of elimination—not identifying the uranium directly, but rather ruling out other known sources.

The goal of the robust nuclear forensics capability we need must be to identify nuclear material definitively and quickly. The National Research Council's 2002 study, *Making the Nation Safer: The Role of Science and Technology in Countering Terrorism*, concluded that: "The technology for developing [post-explosion nuclear attribution] exists but needs to be assembled, an effort that is expected to take several years." Establishing this capability should be a top American priority, since effective deterrence requires convincing potential perps that the U.S. will be able to identify the culprit.

Graham Allison, director of Harvard's Belfer Center for Science and International Affairs, is the author of *Nuclear Terrorism: The Ultimate Preventable Catastrophe*. For more information go to www.nuclearterrorism.org.

A *New York Times* Notable Book of the Year and a *Foreign Affairs* Bestseller

Nuclear Terrorism:

The Ultimate Preventable Catastrophe

GRAHAM ALLISON

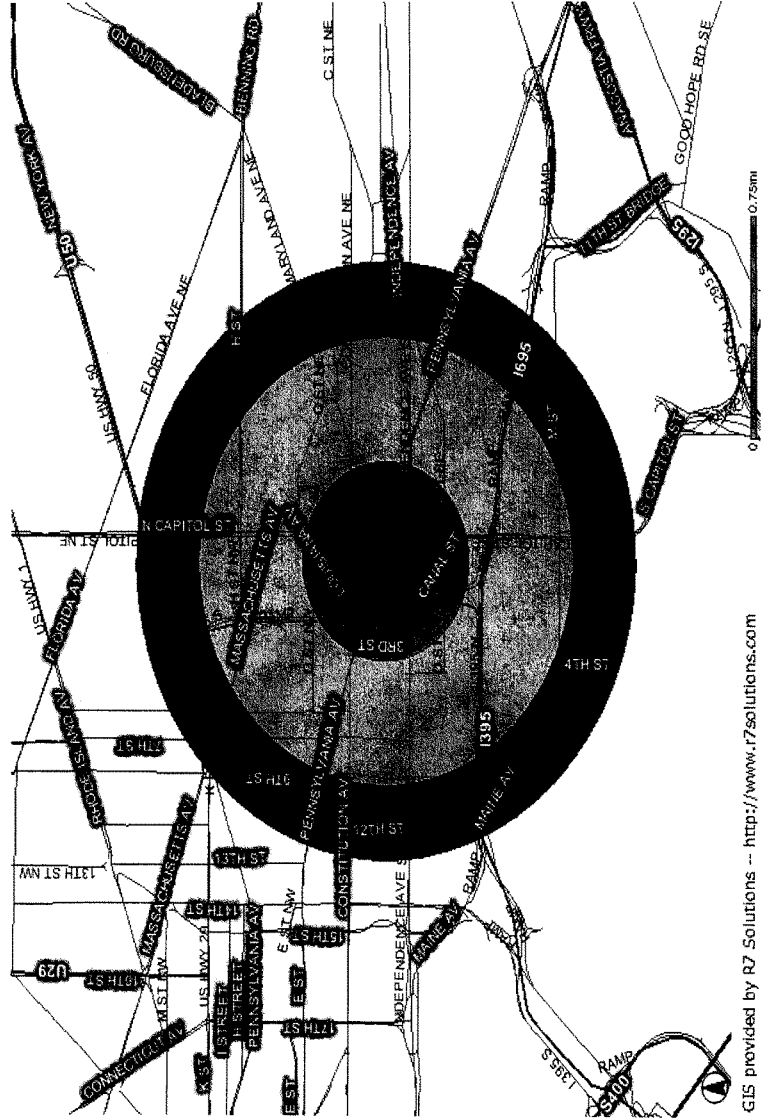
The central but largely unrecognized truth is that nuclear terrorism is preventable. As a fact of physics: no highly enriched uranium and plutonium, no fission nuclear explosion, no nuclear terrorism. It is that simple. While vast, the amount of fissile material is finite (and the challenge of producing more too difficult for anyone but states). Technologies for locking up dangerous material are well developed. The choke point in preventing nuclear terrorism is thus *denying terrorists access* to nuclear weapons and weapons-usable material at the source.

The agenda to achieve this objective is ambitious yet feasible. A serious campaign to prevent nuclear terrorism should apply a doctrine of Three Nos: No Loose Nukes, No New Nascent Nukes and No New Nuclear Weapons States.

- **No Loose Nukes:** requires securing all nuclear weapons and weapons-usable material, on the fastest possible timetable, to a new "gold standard". The U.S. and Russia should develop this standard jointly, act immediately to secure their own materials, and call on the leaders of other states to do the same. All states that possess weapons-usable nuclear materials, even non-nuclear weapon states, must be included in an international coalition to guarantee the security of such materials from theft by terrorists or criminals groups. *Nuclear Terrorism* presents a plan for a Global Alliance Against Nuclear Terrorism to achieve this goal.
- **No New Nascent Nukes:** requires no new national capabilities to enrich uranium or reprocess plutonium. This effort should begin with intrusive inspections of suspected nuclear sites as required by the Non-Proliferation Treaty's Additional Protocol. But two other elements must be added: a prohibition on the production of fissile material and actual enforcement mechanisms. Iran today poses a crucial test to this principle. *Nuclear Terrorism* outlines a strategy for persuading Iran to stop now.

- **No New Nuclear Weapons States:** draws a line under the current eight nuclear powers and says unambiguously: “No more.” The test case for this principle is North Korea. *Nuclear Terrorism* outlines a strategy for freezing North Korea’s nuclear activity and backing it down step by step.

Washington, DC—The Capitol Building



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Mr. LINDER. Dr. Iklé.

STATEMENT OF FRED IKLÉ, CENTER FOR STRATEGIC AND INTERNATIONAL STUDIES

Mr. IKLÉ. Thank you, Mr. Chairman. The DNDO organization—

Mr. LINDER. Is your microphone turned on? Thank you.

Mr. IKLÉ. The DNDO is a great step forward in pulling an organization together with all the relevant departments and agencies. It awaits a new venture in government organization because DNDO will have to depend on the collaboration of independent, quite independent, departments, agencies and their recourse to get full cooperation essentially with the President. They don't have power to order DOD or FBI people around. So the support by this committee for the discipline in this organization and collaboration will be essential.

The prevention of this kind of disastrous attack of nuclear terrorism, of course, also has to depend on the contributions of defense, like in the Proliferation Security Initiative, PSI, or like in the activities by the Special Forces to support, depend on the contribution of the FBI and so forth. So to pull this together makes a great deal of sense.

Important also that—and this you may want to consider in your follow-up legislation—that tests and exercises be conducted and reported back to this committee so you know whether the work has really been done in the field, not just discussions in interagency meetings.

To put this organization together took about 9 months, which is—in peacetime may be appropriate, but if we feel we are in an emergency, it seems to be a long time. And we don't want to lose another 9 months before we get going with practical work in the field.

Now, how do we know that a terrorist group or a country is preparing to introduce a nuclear device on U.S. territory, or for that matter on a U.S. base abroad? As Graham Allison rightly points out, the first line of defense is as close to the source of nuclear material as you can get, and that has to be worked on more vigorously. But we have seen many setbacks in our nonproliferation effort, and we have to be prepared for other setbacks, and that is where this kind of a last line interference comes in that DNDO is focused on.

The structure of DNDO provides for good links with the National Director of Intelligence, with the Intelligence Community, and that is the way it should be. And DNDO is not an intelligence organization, with one very important exception. DNDO is the only organization that, according to its charter, promises to focus on the development of more advanced transformational, as they call it, detection equipment.

Department of Energy in theory can do that and has done some work on that. But—and some work has been done in Department of Defense Advanced Technology Office. But there has been no sufficiently coordinated vigorous effort, and if that is not done, then DNDO cannot help the Department of Defense, with their Special Forces looking for nuclear weapons, give them more advanced equipment so they can find it in the Afghan mountains. It cannot

help the Coast Guard to do a better work on detecting these things in containers.

The text of the draft, the DNDO charter, puts a great deal of emphasis properly on this transformational research. What I am worried about is the execution of it. This is a peculiar type of research, unlike the work that has been done, in part sponsored by the Homeland Security Committee chaired by Chairman Cox, and by the subcommittee here in the biological weapons area, where good work has been done in the pharmaceutical industry and NIH and the Centers For Disease Control and the private sector. The private sector has been mentioned by Mr. Thompson.

That is possible in the field of biological weapons where there is a seamless connection between health care, health work on pharmaceuticals and biological protection. In the nuclear detection field you deal with essentially two elements, plutonium and uranium, and the way these can be put to weapons. And the only really competent organizations to advance our capability for detection are our laboratories, Livermore, Los Alamos, Sandia and so on. And what we need to do is to pull these laboratories together like we did for the Manhattan Project initially, like we did in a different context pull these things for the Apollo Project, with one manager that can run it with a flexible budget, can attract the best people.

It is sad to report, but the number of the best scientists in the laboratories that could have worked on the detection equipment have left because of funding that dribbled in was so constrained, so limited, the encouragement they got was not adequate. We want to get the best scientists to work so that we can help out way out on the front line as well as in the last defense line to detect these things. If you cannot fund them, there is nothing you can do about it. And there are promising ideas, but they are lying fallow because they have not been properly funded and managed.

Now, I don't know whether this hearing is the time to go into full detail on this in the budget that is required. It probably could start at 100 million, but for the other work there is a quarter billion set aside, and the rest of the DNDO activity will require money as well to work with the present instrumentation to set up the architecture abroad and at home.

So eventually a larger budget and a long-term budget will be needed. And in my view, a manager has to be found who should report preferably to the Homeland—to the Secretary of the Homeland Security Department, not to a lower tier in the DNDO organization.

We have gone through this effort for a long time. The Defense Department and the Defense Science Board study, 8 years ago, that argued we should do this research, nothing was done. There was a follow-on study in 1981. Nothing was done. Finally, the Defense Science Board did another study, and you have the report; chaired by Dr. Wagner, has met with the members of your committee. And that is an excellent charter for this. But Richard Wagner and I have been going around the organization, departments and agencies and trying to stimulate the research, so far without much luck and success. So in a way you are the last line of the offense to get this going, Mr. Chairman.

I will be pleased to elaborate further on the organizational details which are very important for this key piece of R&D activity for all departments, not only Homeland Security

Mr. LINDER. Thank you, Dr. Iklé.

[The statement of Mr. Iklé follows:]

PREPARED STATEMENT OF THE HONORABLE FRED C. IKLÉ, CENTER FOR STRATEGIC AND INTERNATIONAL STUDIES

HOUSE OF REPRESENTATIVES*

The Domestic Nuclear Detection Office

Thank you, Mr. Chairman, for inviting me to address the Domestic Nuclear Detection Office. This new organization, located within the Homeland Security Department, has been proposed in the President's budget request for fiscal year 2006.

DNDO properly has the word "detection" in its name. It is focused on the last line of defense to protect the United States from a terrorist use of nuclear weapons that is directed against our national territory. The possibility of a clandestine use of a nuclear weapon against our homeland is not a new idea; it has been mentioned since the beginning of the nuclear age. But as a serious threat it has emerged only during the last decade or so, and in particular since 9/11.

It is the global proliferation of nuclear weapons technology that has made this threat increasingly serious. And since the break-up of the Soviet Union we have faced a growing danger that nuclear bombs and materials might be acquired by terrorist organization. The initial US response has been the Nunn-Lugar program which has now been restructured as the Cooperative Threat Reduction program. These efforts, and other measures to curb nuclear proliferation, have accomplished a great deal. But none could give full assurance against a clandestine delivery of a nuclear bomb for a terrorist attack.

The seriousness of this cataclysmic possibility has become increasingly apparent. Hence, the need for a last-line of defense—the mission of DNDO. Defense experts have proposed better detection measures for some time. Already in 1997, the Defense Science Board spelled out the need for a serious R&D program to improve our technical detection capabilities. Unfortunately, there was no follow-up; and now, eight years later we are still unprepared. The establishment of DNDO is a statement of good intentions, but without vigorous follow-up, competent management, and—Mr. Chairman—strong Congressional support, I fear we will encounter more delays.

DNDO is a unique organization with few parallels. I cannot think of another executive branch organization that seeks to pull together so many government departments and agencies in a cooperative effort for so complex a mission. Keep in mind that the cooperation required will be essentially voluntary. Short of an appeal to the President, the person who will head DNDO cannot order the other components to carry out their tasks.

Such an endeavor has to overcome several hurdles. It can deteriorate into an endless series of interagency meetings. Differences about priorities might not be resolved. Budget requests might be delayed. The most competent people might become discouraged and move on to more promising jobs.

All these setbacks have already been experienced during the Administration's deliberations that led up to DNDO. I mentioned the 1997 Defense Science Board study which lacked follow up. Four years ago, a new Task Force of the Defense Science Board addressed the problem of clandestine nuclear attack again. Chaired by Dr. Wagner, this Task Force prepared a thorough guide for the actions that ought to be taken.† During the last couple of years, the findings of this report were briefed to all departments and agencies that have some responsibility in this area. The bureaucratic obstructions were appalling. Bureaucrats called for more grand studies, more interagency meetings, and some even argued that better detection instruments were impossible since our technology for radiation sensors had reached the limits of physics.

After all these attempts to get a serious effort underway, it is fortunate that we have now a well thought-out organizational structure set down in DNDO's charter.

*Fred C. Iklé is a Distinguished Scholar at the Center for Strategic and International Studies, Washington, D.C. He was Undersecretary of Defense for Policy in the Reagan Administration.

†Report of the Defense Science Board Task Force on Preventing and Defending Against Clandestine Nuclear Attack (June 2004).

With the President's endorsement, and with the full backing and monitoring by Congress, we might—at last—succeed.

Now let me turn to a major part of the DNDO structure which, for the long term, is the most important part: the R&D program for the “transformational” development of sensors and other essential technology. Without better instruments to detect smuggled nuclear weapons, all the operational DNDO components will be unable to do their job. Without Better knowledge and techniques to identify the source of the smuggled nuclear weapon, the deterrent effect of our defenses will be greatly diminished. Indeed, these techniques of identification—called “forensics”—are crucial to avert a mistaken retaliatory strike that would get the United States into a war with a nation that did neither attack us, nor lend any support to the terrorists who attacked us.

Better sensors and forensics are the heart of the matter. And the inter-agency effort that produced the proposed structure for DNDO is very clear on this. Yet, the way in which it describes the management of this “transformational” R&D will not get the job done. It says:

“Nuclear detection R&D will be coordinated via interagency representation on the DNDO R&D Coordinating Council with budget authority remaining in departments/agencies.”

This approach will at best produce fractured and fragmented research efforts, greatly slowed down by innumerable interagency meetings.

Chairman Linder, your Subcommittee is concerned both with nuclear and biological attack. To limit the impact of biological attacks, great scientific progress has been made with vaccines and other medical interventions. And much of this research was done in different research centers, at universities, and by the pharmaceutical industry. This was appropriate given the multifaceted nature of biological threats and the seamless connection between health care and biological warfare defense.

But for nuclear sensors and forensics, the scientific research will not succeed with small research grants, parceled out hither and yon to every applying think tank or university. These sensors and forensics deal with two elements: plutonium and enriched uranium, not with dozens of diseases. And they must be focused on the ways either or both of these elements can be used to cause a nuclear detonation. Only the government weapons laboratories have the experience, the classified data, and sixty years of historic knowledge to work effectively on this problem.

The management of “transformational” R&D effort must be inspired by the way we managed the Manhattan Project or the Apollo Project. These successful programs were not run by endless interagency meetings in Washington that presided over budget constraints and bureaucratic deadlines for dozens of little contracts. Last summer, the Homeland Security Department's research sponsorship on nuclear sensors was done through 135 contracts—one hundred and thirty five! (Some of these, to be sure, produced useful results.)

The country needs a superbly qualified single manager for this work (as was the case for the Manhattan Project), a generous long term budget with flexibility, all to support an integrated team effort bringing together the professional strengths and the scientific assets of Livermore, Los Alamos, Sandia, Oak Ridge, Argonne, and reaching out to specialists at universities and support for prototype production by industry.

This Laboratory-centered program, of course, needs to be in continuing contact with the many potential users of the sensors. (The use of the forensic capacity must remain centralized for the US government.) The physicists at the laboratory will have to tailor their effort to the needs of the Coast Guard, border control, DOD's Special Forces, the Navy's work for the Proliferation Security Initiative (PSI), special needs of the FBI and CIA, and so on.

Your Subcommittee, Chairman Linder, will have to play a strong supportive and guiding role to ensure success for the “transformational” R&D envisaged by the DNDO proposal. Without much better sensors and forensics, DNDO cannot succeed, it will just remain a bureaucratic artifact. This is why I put so much stress on a laboratory-centered R&D program, run by a manager in the style of the Apollo or Manhattan Project. To this end, the legal, administrative and budgetary details still have to be worked out, a job that your able staff (in cooperation perhaps with OMB) could accomplish in a couple of days.

To sum it up, the Domestic Nuclear DETECTION Office is a great step forward in America's struggle against nuclear terrorism. But without an “Apollo Project” on sensors, there won't be much hope for detection and DNDO will become the Domestic Nuclear DISCUSSION Office.

Forgive me, Mr. Chairman, for pressing this point so hard. Witnessing ten years of fumbled and failed effort have diminished my sense of patience, a little.

Mr. LINDER. Colonel Larsen.

Colonel Larsen, may I say that Dr. Allison must walk out the door at 10:30 to catch a plane. 10:45. Okay.

STATEMENT OF RANDY LARSEN (RETIRED USAF), CHIEF EXECUTIVE OFFICER, HOMELAND SECURITY ASSOCIATES, LLC

Colonel LARSEN. I will make my remarks short. I seem to have the same problems with that, as I hear many of the Members, the word “domestic.” Prior to 9/11, intelligence worked outside our borders, and the FBI primarily worked inside, and that doesn’t seem to apply so much anymore. We see a change there.

I worry about this office when everything I know about trying to prevent a nuclear terrorist attack on an American city, the majority of that activity is going take place outside our borders. So I am concerned about that word “domestic,” and I think the global perspective a far better one there.

My other great concern that I see here is the problem with who is in charge. We have heard many different places mentioned. Now, you know, if you want to have a hearing on missile defense here, you could basically call two people, one of them appointed by the Secretary of Defense that manages the program, one appointed by the President and confirmed by the Senate, an under secretary that manages a \$7.7 million budget. Two people here.

If you wanted to have a hearing about who was protecting us from biological weapons, there are 26 Presidentially-appointed, Senate-confirmed individuals, and none of them has it for a full-time job, and they work in 12 different agencies. No one is in charge. And I would say that it is somewhat similar for who is in charge of defending us from a nuclear attack. And now we are adding two new offices to that already long list that you would have to call up here, Secretaries of Energy, Defense, all that you mentioned, Mr. Chairman. Now we are going to add DNDO. And the intelligence reform bill says we are going to create this new office within 18 months, unless the President says he doesn’t want it, called the National Counterproliferation Center. I actually like the charter of that a little bit better, I think, even though it is going to be under the DNI. I like that charter a little bit better maybe than this Nuclear Detection Office that is inside DHS.

I am not saying that I am against detection. I am all for it. I am probably the only person in the room that carries a detector with them. I have one. You know, you can buy these for under 100 bucks. The problem is this will not detect a nuclear weapon. If you had a nuclear weapon, if you had a Mark 15 sitting up there in front of you, this won’t go off. It won’t even go off for a dirty bomb. But it will go—if a nuclear explosion goes off at the other side of the Pentagon, you know, then this would. It takes a really hot thing.

So detection capabilities is—it can be cheaper, it can be extremely expensive. The problem that we all have that we discussed at Wye River is what is that next generation? How good will it really be?

The third thing that is important to me is where we would put the detectors. So let us say we go—and Mr. Iklé sure knows a lot

more about detectors than I do, and he is the person you should ask those technical questions to. But I am the strategist guy. I am the guy that thinks about the bad guy all the time.

So where would I want to deploy these really good detectors? Maybe not on our borders. Maybe it should be where Dr. Allison says. Most of that stuff is stored in the Soviet Union. When it leaves there—you know, this is kind of like remember in the Vietnam War we used to have million-dollar airplanes bombing \$300 trucks on the Ho Chi Minh trail? It would have been simpler to bomb those trucks up at Hanoi before they left the depots.

So I am more concerned about where that material would come from is where I might want to put my detectors, because we have—I mean, well, let us face it. If you had an arsenal of three nuclear weapons, and you are a terrorist organization, are you just going to put it in a shipping container and say, hey, send it to Chicago? You know, I would put it inside a Gulfstream and fly it across into the United States. I would put it in a ship. You know, open press says Al-Qa'ida may have up to 80 ships. I would put it in a ship and drive it into a port. It would never get to your detector you got there in your screening place. You know, set it off in Long Beach or Los Angeles. Or I would set it off in New York just as it is pulling into port. What good is the detector going to do there?

There are 7,000 miles of unguarded border here. So you say, well, we are going to put those detectors at these major crossing points. They are not stupid. You know they will get a four-wheel-drive vehicle and drive it from Canada through Minnesota on one of those logging roads through there.

So I am for detection. I guess my question is where we are going to deploy it. And it is not domestically, so that is my problem with the Domestic Nuclear Detection Office.

The last comment I want to make is, I am sure, one you have all read, but I think it is worthy of repeating, and it is from the WMD Commission report. And I quote, we would like to emphasize that the United States has not made collection on loose nukes a high priority, unquote. And it bothers me, Mr. Chairman. I think it should bother this committee. Thank you.

Mr. LINDER. Thank you, Colonel.

[The statement of Colonel Larsen follows:]

PREPARED STATEMENT OF COLONEL RANDALL J. LARSEN, USAF (RETIRED), FOUNDER AND CEO HOMELAND SECURITY ASSOCIATES, LLC

Mr. Chairman, thank you for the opportunity to comment on the newly created Domestic Nuclear Detection Office.

Of all the potential terrorist threats America will face during the next several decades, only two have the capability of bringing a super power to its knees, biological and nuclear. Notwithstanding the name of this subcommittee, I must tell you, at this time there is no way to prevent biological attacks on the American homeland. As we discussed last month at the Committee's Wye River off-site, the biotechnical revolution of the past decade combined with the fact that the majority of pathogens suitable for biological weapons exist in nature make it physically impossible to prevent such an attack. Therefore, the focus for biodefense must be early detection, rapid response, and recovery. If properly prepared, we will be able to prevent a bio-terrorist attack from becoming a social, economic, and political catastrophe. Without sufficient preparation, little can be done in the midst of a crisis to lessen the consequences of an epidemic.

On the other hand, our efforts to protect America from the threat of nuclear terrorism must not be primarily focused on *detection* nuclear materials *inside* our own borders. The priority must be on preventing any terrorist organization from obtain-

ing highly enriched uranium or weapons-grade plutonium. That is why I am concerned about the limited scope of the Domestic Nuclear Detection Office in the Department of Homeland Security.

The newly created DNDO is certainly a worthwhile initial effort, but not the strategic program we require. The two greatest shortfalls are clearly identified in the title of the new office: *domestic* and *detection*. The word *domestic* leads me to believe its focus will be inside US borders. Most of the nuclear material that we must contain is outside US borders, the vast majority in the states of the former Soviet Union. Additionally, *detecting* nuclear material inside our borders is the last step in a long process, and what I would describe as a desperate effort with low probability of success.

On the other hand, I will say that DNDO is a worthwhile initial step, because it may serve to improve interagency cooperation amongst the wide variety of players involved in preventing nuclear terrorism on our homeland. I applaud this initiative, but must ask, are we doing enough to identify and secure the sources of weapons-grade fissile material that could be used to build a terrorist weapon? To me, this should be the top priority.

If Al-Qa'ida, or any other sophisticated terrorist organization gets their hands on highly-enriched uranium, they can most probably build a bomb. Any terrorist organization capable enough to obtain this material is probably smart enough to transport it to an American city without detection.

Some would say we should spend more money on detection capabilities. I do not believe that this should be a high priority—from both scientific and operational perspectives. In an unclassified hearing I cannot comment on certain facts, but for those who will try to convince you about the current capabilities, I suggest you ask them one question: “Why can't you find the nuclear weapon that is located just 16 miles from Savannah Georgia?” An Air Force B-47 dropped it there on February 5, 1958. It is reported to be 60 times more powerful than the bomb dropped on Hiroshima.

Regarding funding research and development efforts for new technologies, I am a little more optimistic, yet, as we discussed at Wye River, trying to get a straight answers about the feasibility of such new capabilities is not easy. My bottom line on radiological detection is that it is most likely a better return on investment to focus on research and development rather than more deployment of current capabilities.

My bottom-line on the establishment of the DNDO is that I support the initiative, but question why it is limited to domestic efforts. I think most of us in this room agree that a nuclear-armed terrorist is the most troubling of all threats to our homeland.

If we agree that this is true, then I must ask you who is in charge of preventing such an attack, because, I do not know. If you wanted to have a hearing on what is being done to prevent such an attack, who would you have to call to testify? The Secretary of Defense, the Secretary of Energy, the Secretary of Homeland Security, the Secretary of State, the Attorney General, the Director of National Intelligence, to name just a few. In other words, no one is in charge.

If I asked you who was in charge of missile defense in this country, you could point to one person who has been appointed by the Secretary of Defense to manage the program and a Presidentially-appointed, Senate-confirmed Under Secretary who is responsible for an annual budget of \$7.7 billion. It is very clearly known who is responsible for the program to *defend against a delivery system*, but who is in charge of defending against *the weapon*?

Frankly, I don't lose any sleep worrying about intercontinental missiles delivering nuclear weapons on American cities, but I do worry about nuclear weapons being delivered in small trucks, because that is the most likely delivery method for a terrorist organization.

I am also not convinced that a massive, new deployment of current or the next-generation radiological detectors at border crossings and ports will make us more secure. First of all, a nuclear explosion on a ship that was just pulling into one of our large ports means the weapon would have reached a high-value target. Second, why do we think that a terrorist will cooperate and bring a nuke through one of our largest ports? I would bring it across the border in a privately owned jet aircraft, a small boat (we have 95,000 miles of shoreline in America) or in a four-wheel drive vehicle across the 7,000 miles of unguarded border. Building a Maginot Line of radiological detectors would make us no more secure. In fact, it would divert funds from higher priority programs, and make us less secure.

The answer to the threat of nuclear terrorism is preventing the terrorists from getting their hands on weapons-grade material. The majority of this effort will be accomplished outside of the US borders through programs that are not receiving the

political and fiscal support they deserve. I do not see how the Domestic Nuclear Detection Office will solve this problem.

Mr. Chairman, I conclude my brief remarks with what I believe to be the most troubling statement in WMD Commission Report. “. . . we would like to emphasize that the United States has not made collection on loose nukes a high priority.”

Mr. Chairman, what could possibly be a higher priority?

Mr. LINDER. It appears that we have some agreement among the three witnesses that this is not a domestic issue as much as it is a global issue.

Dr. Allison, you said the first thing we should do is get rid of nuclear weapons. Do we start with ours, or do we start with the Soviets?

Mr. ALLISON. I said the first thing we do is lock them down and eliminate them where we cannot lock them down adequately at the source. As I tried to argue in my book, human beings actually know how to lock things down we don't want people to steal. How much gold does the U.S. lose from Fort Knox? Not 1 ounce. How many treasures does Russia lose from the Kremlin armory? None. Why should icons in the Kremlin armory be more secure than material from which a terrorist could make a nuclear bomb? It makes no sense. No sense.

And so I am for locking them down wherever they are, including ours, which can be done a little bit better, but that is not mainly the problem. The problem is in Russia, it is in Pakistan, it is in risky research reactors in Uzbekistan, places where guys could get enough material to make a nuclear bomb. And where I can't lock it down to that standard, and in a way that I am comfortable, I would try to clean it out of there, so getting the material out of these other places and destroying it where I can.

So this is not for eliminating American nuclear weapons. This is about preventing terrorists getting nuclear material or a nuclear bomb which they could use to blow us up.

I may have misspoken. I apologize.

Mr. LINDER. Are you confident that we know where all this material is?

Mr. ALLISON. I believe that Porter Goss has testified for the first time publicly on this, that, no, he believes that—he and CIA believe that more than a bomb's worth of material is missing from the Soviet Union, and they do not know where it is. I believe we know where almost all of the weapons and materials are, and I believe that we can motivate the leaders of other countries who know also a lot about what is within their countries to get on board to a program that would lock all weapons and materials down to a gold standard, and to do so on the fastest technically feasible timetable.

I believe we should be assisting them to the extent that we could in Nunn-Lugar if they needed assistance, but we mainly need to be motivating them. As I argue in the book, if Putin is securing Russian nuclear weapons as a favor to us, we have got the wrong picture. He should be thinking about the Chechens who blew up those kids in Beslan. If they get a nuclear bomb or material from which to make a nuclear bomb, they are not coming first to New York or Washington. They are coming first to Moscow. So he has got to feel this as an existential threat for himself. And ditto for Musharraf.

Mr. LINDER. Dr. Iklé, you said that whoever heads up this office will not have the power to instruct the Department of Energy or the Department of Defense. Should they?

Mr. IKLÉ. The office should have a—within itself or separate a structure that can work effectively with the Department of Energy.

Mr. LINDER. Is your mike on? Is that mike on? We are streaming this on the Internet, so we want to make sure that we are on microphones.

Mr. IKLÉ. Thank you.

In a proposed structure, the normal hierarchical authority, the Secretary of Defense can tell his people in the Office of the Secretary of Defense or the military what tasks to do, when to deliver and so on. I don't see that in this organization.

I don't think it is practical to bring together these large, independent, separate departments, DOE, Department of Defense and so on, and to give somebody the authority in this particular field to give orders and instructions. They have to do it, I guess, through the Secretary of Homeland Security, who would then call the Secretary of Defense and say, will you please tell your people to deliver X and Y that they agreed to do in DNDO.

I think with goodwill and with congressional pressure and monitoring, I think it is feasible. To get started I see no alternative way. You do not want to create a new department to pull this together. We have the Homeland Security Department already pulling a lot of entities together, and it is not an easy job.

Mr. LINDER. Colonel Larsen, you mentioned that these detectors ought not probably be on United States soil. How many points in the world are we concerned about?

Colonel LARSEN. I think Dr. Graham could probably answer that question better than I, but I am not saying we shouldn't have detectors on U.S. soil. I mean, they are cheap, many of them. There are a bit of—they can work. Advertise them, have an information campaign. It is a bit of a deterrent, but I sometimes think that it would just deter them from bringing them through the ports and taking the weapons somewhere else.

But I think that the source of the material, you can't make highly enriched uranium and plutonium anywhere. There is only so many places. Unfortunately there are some places we can't put them, like in North Korea or in Iran or in other places. But I think that the stockpiles, the enormous stockpiles we are talking about, we have to make them as secure as possible, and I think detection could help us

Mr. LINDER. Dr. Iklé, did you want to respond?

Mr. IKLÉ. If I could just add a point here. In fact, we do not have adequate detectors. We do not have them, and unless we get to work on it, we will not have them. The detectors we now have, you have to be very close. You cannot see through a container; it is shielded and so forth.

As to the nuclear materials, for the time being the places where they could be produced we can list in a book, but there are going to be more. There are going to be more because of the evolution of the peaceful uses of nuclear technology. The project on mixed oxide fuels, it is a whole chapter by itself. It will distribute plutonium that could be converted to bombs throughout the world as it is now

planned in the Department of Energy. It requires almost a separate hearing to look into that. But the technology is spreading for making these fissile materials, so we can no longer count, unfortunately, on getting to a few sources and stopping it there, valuable and important as that is to do now

Mr. LINDER. Thank you. My time has expired.

Dr. Allison, did you wish to make a comment?

Mr. ALLISON. Yes, very quickly, because I think where we disagree may be as helpful for the committee as where we agree.

I mainly agree here, but I would say that first a strong point of agreement, the research and development that would produce better detectors is certainly a good idea wherever you deploy them. And currently the physics of this problem was well illustrated in that ABC test that they performed on a television show that some of you saw that I was one of the witnesses in. Basically just the physics of the problem makes it easier for the hider and harder for the seeker. So if I start with the highly enriched uranium from which I could make a bomb smaller than a football, and if I stick it inside a lead pipe, as the ABC people did, and if I put that in a camera bag, the chances of detecting that with the current technologies we have, current, is nearly zero. I can take a picture of a cargo container and notice that there is a large metal object in it, but unless I open up the container and look in the box and look to see what is inside the pipe, I am not with this detector or any detectors we currently have.

Now, is that given by nature, or is that a state of the current technology? Dr. Iklé rightly says it is a state of the current technology. What is America going to count on in the war on terrorism? Technology is one of our assets. So I would say this is a very important arena for moving forward.

On the second point where I slightly disagree with Fred, my second—I proposed in this book for prevention three No's, the doctrine of three No's, the second of which says no new nascent nukes. I believe it is in the capacity of the U.S. Government to build a global consensus that we are simply not going to let people produce any more fissile material on a national basis. So, now, that means Iran, and it means dealing with North Korea. But I think you deal with those two problems, and then maybe 20 years from now there will be some new fancy technology that allows people to make nuclear bomb material in their bathtub or in their basement. But fortunately technology is on our side right now. Nobody has invented an easy way to create fissile material. It is a multibillion-dollar, multiyear, substantial investment. So I would, for example, in the case of Iran, not let Iran ever operate enrichment and reprocessing facilities. And I sketch out a strategy for trying do that in the book

Mr. LINDER. Thank you very much.

Mr. Langevin.

Mr. LANGEVIN. Thank you, Mr. Chairman. And, gentlemen, again, thank you for your testimony here today.

Dr. Allison, if I could, on that last point, we are talking about the technology, and I agree with you, by the way, that, yeah, the technology of today may not be able to adequately detect weapons-grade plutonium or highly enriched uranium, but hopefully the detectors of tomorrow will. And clearly we all know the statistics, the

fact that technology squares approximately every 18 months. So that in and of itself should provide evidence to the fact that we could and should pursue better detection equipment.

If I could turn to the fact that there are three ways that terrorists might obtain nuclear weapons or material. One is to steal it; the other is for it to be given to them by some rogue state; or third is for them to develop it on their own. That was the last point that you touched on.

Right now Mother Nature does not make it easy for us to develop weapons-grade plutonium or highly enriched uranium. So on that point, what do we need to worry about with the technology of tomorrow that a terrorist would pursue? What do we need to be watching for that would make it easy to produce weapons-grade plutonium or highly enriched uranium? Are there things that—we know what technology to look for now, the aluminum tubes, other things that if a state or terror groups were trying to obtain that type of material, we would know what they are up to. What are the types of things that we need to be aware of in terms of technology of tomorrow that would indicate terrorists trying to pursue an easier method of using weapons-grade plutonium or highly enriched uranium?

Mr. ALLISON. That is an excellent question, and it becomes very complex, and I am not the best expert on this. I think there are a number of people at the weapons labs who actually track this as an issue.

I would say, first, it is quite possible that there will be some technological breakthrough that will make it a lot easier to make highly enriched uranium or plutonium. Should that occur, we will have a different problem. But right now, fortunately, on the supply side there is a choke point.

Secondly, as Dr. Iklé says, as we think about civilian nuclear cycles, including mixed oxide fuels, mixed plutonium, I start from the question in what ways can this assist terrorists who want to make a nuclear bomb, and what can we do to make sure that as these processes are designed, we minimize that risk? And I would say that indeed as one watches the plutonium reprocessing that has been going on, I see no sense in this whatever. I think that if we are—in the one instance in which what we are doing is stimulating Russian elimination of plutonium, I am in favor of. But as a general proposition, the notion that the British are continuing to reprocess plutonium for the Japanese and store it makes no sense to me, because when it is in the spent fuel, it is not dangerous; when it gets loose, it is. So I would say that is the arena.

I think the second point of your question, which is very important, what we have learned—everybody should study the A.Q. Khan case. Everybody should study this very carefully. I have a reasonable starting point in my book, but I think we are going to learn more about this every week. And here the father of the Pakistani nuclear bomb, as you know, set himself up as the first global nuclear black marketeer, sourcing globally the ingredients from which he made nuclear bombs. So he sold them nuclear bomb designs out of China, a very good nuclear bomb design actually. He sold them uranium hexafluoride, the feedstock out of North Korea. He sold them equipment for centrifuges out of Malaysia. He had

South African scientists working on their bomb programs and some materials in their warehouses. He was running his money out of Dubai. I mean, this was a pretty amazing global—globalization is a fantastic process. He took full advantage of it.

So I think the notion of—go back to what I think Congressman Cox mentioned, if I got it right, the notion that there has got to be some global engagement in an international effort in which nations declared this to be illegal. Fortunately, that process has been moving forward, in which there is great cooperation on export control. So, as Colonel Larsen was saying, we are looking at every border when things go across. We are looking at dual-use items. I mean, there is a huge, huge agenda of work in that arena. And one that we are working on, but I would say not with—I mean, it is kind of like with all deliberate speed rather than, holy Moses, this could actually be happening. But this was the case. I mean, the facts about the A.Q. Khan case in Libya are now 100 percent understood, because we have an opportunity for American officials to go and, you know, see the scene completely.

Colonel LARSEN. Let me—just two brief comments about the technology, because I think sometimes there is a misconception. Dr. Graham and I have never built a nuclear weapon. But, Dr. Graham, if you and I had 100,000 pounds of highly enriched uranium and \$100,000, you suppose we could make a crude bomb? I have no doubt in my mind.

So there is no new technology that is going to give this to Al-Qa'ida or a terrorist. They already have that new technology. And then there is this technology you were mentioning, like Moore's law, that, you know, it doubles in speed, or the computers is every 18 months. Well, remember, that is computers; it is not detection capability. Physics don't change every 18 months, and that is my concern.

So I understand we have got to have some R&D to look at this, but the basic physics will not change, and finding a weapon is very difficult.

Mr. LANGEVIN. Well, I have additional questions, but my time is running out, so I will hold them for a second round. Thank you.

Mr. LINDER. Thank the gentleman.

Does the Chairman wish to inquire?

Mr. COX. Thank you. Thank you, Mr. Chairman.

The testimonies that the three of you have provided have laid out the problem very, very neatly.

Dr. Allison, you began with the global nature of this problem and the importance of controlling materials worldwide. Dr. Iklé, you warned us that we need better sensors and forensics. What we have in hand is not adequate. And Colonel Larsen, he told us that even if we do have good technology, we need to think about how and where we are deploying it, because putting it only at major border crossings will be inadequate, and that we would be better off trying to look at the source of these materials rather than scouring the whole planet or our whole country indiscriminately.

That suggests to me two things; first, that we need to think about the role that intelligence plays in all of these decisions. And I don't see an element in the proposal for DNDO to integrate intelligence. Second, the D in front of DNDO may necessarily constrict

us in ways that nobody really wants, because this problem has its ultimate focus in the United States, but it is not at all about something that is going on uniquely in our country. And so coordinating these efforts globally seems to be very key.

There is—if not a third aspect of this problem, there is a corollary to these two problems, and that is that we have got to make, I take it, some budget choices. If we were to give the President the money that he asked for, the nearly quarter of a billion dollars, we would have to make some immediate budget choices about whether to buy a whole lot of today's technology in a hurry or whether to spend that money on developing something better. So I wonder if you could critique or complement, if you choose to do so, the precise proposal that is before us from the administration, and I think from the Department, in the form of the President's budget and a letter from the Secretary of Homeland Security for a Domestic Nuclear Detection Office rather than a nuclear terrorism prevention office to tackle that problem perhaps more generally.

Dr. Iklé. And I hope to hear from you each of you.

Mr. IKLÉ. I have been somewhat involved in the birth of this organization, and my guess is the "D," the domestic, is there because it was the Homeland Security Department that took on the initiative to do something about it.

Mr. COX. If I may stop you right there, one of the concerns I have had in other areas of homeland security is this notion that somehow it is not of interest to the Department of Homeland Security if there is an attack on the USS Cole. It is impossible for what is now the second largest Cabinet department to have a handle on its number one priority, the prevention of terrorism, if it is constricted to the domestic United States in terms of its intelligence.

Mr. IKLÉ. The intelligence—actually, there are several paragraphs in the proposal that is in front of me—there have been different proposals floating around referring to coordination of intelligence with the Director of National Intelligence. I think that, with proper management, that will be taken care of naturally. Like the Department as a whole, HSD, this organization would be plugged into the intelligence organization.

Mr. COX. Well, I do want to focus again on this notion that the Department of Homeland Security is somehow restricted in its outlook to the territory of the United States. Because if we have by design a Nuclear Detection Office, then we are going to assume the solution to the problem without continuing to question what the problem is or how to attack it, and all that DNDO will be is a project and we will see how fast we can pour money into the deployment of the specific technology that we have chosen to put at our major crossing points.

Mr. IKLÉ. Right, I fully agree. And I was guessing the word "domestic" is there because maybe some lawyer in the Department of Homeland Security being involved in the drafting said, "you have to stick to the domestic."

Mr. COX. The statute certainly doesn't require that.

Mr. IKLÉ. Prior to this effort, the Secretary of Defense—I am breaking some confidence here and getting out some news—contacted the Secretary of Homeland Security for a joint effort. He was

turned down, so that was too bad. But at least now the Homeland Security Department decided to move ahead.

I would think you have the power to change it and NNDO, National Nuclear Detection Office, might be a better name and clear up some of this confusion and ambiguity. I totally agree with you. It has to work abroad as well as on our borders and within our territory.

Mr. COX. If we could just hear from the other witnesses, Mr. Chairman, I have no further questions.

Colonel LARSEN. The disconnect seems to be in the charter of this committee, which says “nuclear counterproliferation and detection.” So I think we are trying to put that whole role on this new office in DHS, when what Congress passed here last year for the budget, I mean the Intelligence Reform Act, creates this new office, the National Counterproliferation Center.

So to me that seems that new thing under DNI—of course, they got 18 months to stand that up, which I think is too long, in my opinion. The original bill said 12 months. It got extended to 18. But that might give us a better chance of having someone in charge of the whole thing, and maybe this just should be the Nuclear Detection Office to do the R&D.

We have folks at S&T, at DHS, doing R&D on MANPADS, what is the best which way to beat that kind of threat we are facing or whatever, and they are doing that. Maybe that is what this office should focus on, is the R&D effort for detection. Wherever we put them, take the word “domestic” out. I am happy with that. But I don’t think it fits well, this office, for your full charter, because you start with the word counterproliferation.

Mr. LINDER. Dr. Allison, did you wish to comment?

Mr. ALLISON. Yes, I agree with both of these comments and would just push it a little bit further.

To Congressman Cox’s question, if you start with what are the jobs to be done and then, because we always had the problem with domestic and foreign and then we get slightly confused about, okay, well, the jurisdiction of this committee or this department, but I think it is worth it to start with the logic of the issue and then work your way back.

You would like, in the first instance, to be able to detect and therefore seize nuclear material that could be used to make a bomb, that might be on its way to become a bomb. Where would you like to detect it? Wherever you can detect it. And where would you like to seize it? Wherever you can seize it. So when it is crossing the border in Russia, when it is going across Bulgaria, if it is on the seas, if it is at the port, if it is New York City, wherever it is, if you had a piece of technology for doing that, do you want to have a stamp on it that says this one can only be used domestically and this one can’t be? So it is a global problem, and it should have a global solution.

Secondly, right now, we actually have people that do this. As I described in my book, *The Dragon Fire Incident*, we thought that there was a nuclear bomb in New York City a month after 9/11, so they dispatched to New York City the nuclear NEST teams. Who are these? These are nuclear experts that go with the current technologies, whatever they are, to look for any signs of radioactivity.

Now, as I said before, because of physics, they have a hard problem, because if I am trying to hide it I have a much easier job than they if they are trying to seek it out. So the technology changes over time.

But there are people that are now doing this; and there are people, for example, Special Forces guys, who are looking around in Afghanistan now. Are they not looking for nuclear weapons material? Excuse me, of course they are. I mean, that is not a classified fact. That is obvious. If they are not, they are not doing their job. So whatever capabilities we have ought to be a national capability. So I agree with that very, very strongly.

On the third point, if you were going to call this—if I were naming or whatever, “national” makes a whole lot more sense.

Fourth, if you go back to Colonel Larsen’s first point, one of the problems with this whole game is, if you ask who is in charge of preventing nuclear terrorism, it is either all hands go up or no hands go up. But there is nobody for whom that is their job when they get up in the morning, that is their job when they go home at night, and that is their job if something terrible happens. But that is not the task of this group.

I think for the structure of this organization, if it were able to speed the research activity that is now going on to improve the quality of detection for whoever is using it, an intelligence agent who is out somewhere or Special Forces, PSI ships that are on the sea as well as somebody at a port or the nuclear NEST teams when they come to look in one of our cities looking for something, I would say that is perfectly fine. And this if this is not adequately integrated with those, I think it will end up being an aside.

Mr. LINDER. Thank you.

Does the gentleman from Mississippi wish to inquire?

Mr. THOMPSON. Yes, Mr. Chairman.

The panel pretty much agreed that, in terms of the threat of nuclear terrorism, we have to find the weapons grade material at the source and at some point create an adequate detection system. I heard a little disagreement on whether that should be a private sector detection system or a publicly operated detection system, and whether we use the research labs or what have you to help with that. Can you kind of share where you think the private sector falls within this detection effort in terms of the whole nuclear identification and threat?

Dr. Allison, we will go with you.

Mr. ALLISON. I think Dr. Iklé, who has thought a lot about this, in his proposal for some more Apollo-like or some manager of the whole project within and making use of what is known in all of our national weapons labs is a big piece of this, and I don’t have my mind fully around that.

But I have a second observation, and it is not well-grounded, but I would say that, from my conversations with at least some people in the private sector and given the extent to which the game of finding highly enriched uranium and plutonium is a game of, in the first instance, physics and then the embodiment of physical capabilities within the laws of physics that allow for detection, I would be very interested in either as that unit or independently of it trying to stimulate private initiatives in this arena. Because I think

you have got a lot of inventiveness there. And whether it would be by—I tried to think a little bit about this—maybe by saying here is some parameters of the current detection capability, and if you can think of a better way to skin this cat, there would be a potential for—mean, there would be a buy of a certain number of things.

I think in the bio area, some of the most interesting initiatives that have come forward is when people think, okay, I can go do it my way differently than the structured way.

So I would be interested in finding a way to have as part of it some engagement of the private sector initiative, not by funding their research in advance but by telling them we were going to buy a certain amount of stuff, and if you come up with a great gizmo, come and present it for review.

Mr. IKLE. The private sector is already engaged. The Homeland Security Department has let out many small contracts and some larger ones to the think-tanks, to industry people for making contributions, and I could see further contributions coming from the private sector, especially for things which, not getting into deep classified stuff, but which refer to the deployment, to the defense ability, the gates through which you take the containers or what have you or making cheaper products once the products have been designed.

But you have to be on guard not to let that dominate the whole effort for getting advanced sensors which we need so badly. The real capability is with the laboratories. They have worked for 60 years on plutonium, highly enriched uranium and making these materials into weapons and combining it, and they have the classified information, they have the experience, they know from their intelligence experience over 60 years how other countries go about it, how terrorists plan to go about it. They can put together larger teams, and they have the laboratory material to work on it. They must take the lead.

Now they will spin out some new ideas for detecting highly enriched uranium, describe the shielding, which Graham Allison properly referred to, which prevents us from finding it now. There are ideas for finding uranium despite that, but they need to be worked on at the labs.

Then once you have design, particularly industry can make cheaper prototypes, can produce the 1,000 items, if you need so many, much cheaper than the labs. The labs are not doing the production. But you need a driving center where the basic development begins, and that, in my view, has to be the laboratory, and I think all the experts who have looked at this would agree with it.

Colonel LARSEN. I agree. The basic science needs to be done at the labs. But, as you said, doctor, a lot of good scientists left there in frustration. We would certainly need a program to get some of the folks back there. Basic science needs to be done there, and then turn it over to industry.

Mr. LINDER. If the committee would indulge me, I would like to submit for the record a statement by Dr. David Abshire, President of the Center for the Study of the Presidency.

In his statement—I would like to ask the witnesses just to comment on this. In his statement, for the record, he said “The Na-

tion's defense against covert delivery of nuclear weapons remains an unnecessary Achilles heel." He further elaborates that "as part of the solution, any plan must not only involve deployment of detectors but weapons interdiction capabilities. This would imply that the DNDO should have an operational element to its mission, which it does not. Is persuasion its only option? A rather large task, considering the key partners of this office are DOD, DOE and State."

PREPARED STATEMENT FOR THE RECORD OF DAVID M. ABSHIRE, PRESIDENT, CENTER FOR THE STUDY OF THE PRESIDENCY

Toward a Coordinated and Comprehensive Defense Against the Smuggled Nuclear Weapons Threat

Thank you for the opportunity to submit these comments to the House Committee on Homeland Security. You are to be commended for taking up such a critically important issue as "DHS Coordination of Nuclear Detection Efforts." Dr. Fred Ikle, appearing before your Committee today for this hearing, is responsible for my involvement and that of the Center for the Study of the Presidency in this issue. Dr. Richard Wagner of Los Alamos National Laboratory advises the Center in this regard and is a vital asset to our work. He would bring enormous value to your Committee's deliberations on this subject and I hope that he can testify before you in the future.

In the course of this hearing, you will find that detecting and defending against covert nuclear attack remains the job of more than just the Department of Homeland Security. Yet, the advent of the Domestic Nuclear Detection Office is promising. I would like to address the difficulties ahead in pursuit of a more comprehensive defense, the pros and cons of DNDO in this context, and the value of taking a more inclusive approach to devising, developing, and deploying a layered defense against the ominous threat posed by smuggled nuclear weapons and global terrorism.

The likelihood of a terrorist organization obtaining a nuclear weapon increases with every passing day. Professor Allison will make this case before your committee with disturbing clarity. There can be little doubt that, if in possession of a nuclear weapon, most terrorist groups would exhibit little reluctance to use it against an American city.

A major investment has been made over the years in missile defenses to diminish the threat from nuclear weapons owned by nation-states and delivered by ballistic missiles. Yet, at the same time, the nation's defense against covert delivery, something even Oppenheimer warned against over 50 years ago, remains an unnecessary Achilles' heel. Consider that over two million pounds of illegal drugs were successfully interdicted crossing our borders last year. The presence of such drugs in the marketplace suggests an enormous tonnage penetrates our borders undetected. A terrorist requires the amount of highly enriched uranium the size of a grapefruit to kill thousands of Americans almost instantly.

Unfortunately, there is no straightforward solution to the smuggled nuclear weapon threat. It requires defense in depth. This includes not only development and deployment of better detectors. It overarches the following:

- Global nonproliferation initiatives,
- Bolstered intelligence operations to detect terrorists' nuclear-related activities,
- Greatly strengthened weapons interdiction capabilities,
- Enhanced opportunities to be exploited during the crucial period between warning and attack, and
- Improving post-attack recovery response capacities and enhanced forensics.

Necessary forensic capabilities—in combination with better detectors—are among the principal areas deserving increased R&D attention.

Accelerate R&D Across the Executive Branch

Key to developing and deploying a layered defense in depth entails better technologies for detecting the presence of a nuclear device or materials. The establishment of Domestic Nuclear Detection Office (DNDO) is an extremely positive step in improving detection and will provide an organization which, adequately funded, can do much to accomplish the above. Considering the rising likelihood and potential devastation of the threat concerned, it is worth asking whether DNDO will improve deployed detection technology as much and as quickly as possible. DNDO's charter

and authorities are sound, but progress should be measured by how well this initiative overcomes the challenges of physical science as well as the realities of political science. In other words, how DNDO is organized, structured, and managed significantly affects its ability to deliver.

Three challenges at the nexus of physical science and political science illustrate the point and offer options for way forward:

1. To deal with such a difficult scientific, technological, and operational issue requires innovation, free thinking, continuity of effort, creativity and simultaneous risk taking. The government's conventional approach to research and development (R&D) rarely resembles these traits.

2. The anti-nuclear smuggling R&D task is further challenged by the fact that many different government organizations have important and legitimate roles in confronting the threat, including the Department of Homeland Security, the Department of Energy, the Department of Defense, and the Department of Justice. And each of these agencies requires the same leap in nuclear weapon detection capability to be most effective.

3. Those most needed to contribute to this challenge reside across a diffuse set of research institutions, including universities, national laboratories, and private industry, the latter often within small, thinly-financed firms. It has generally been found that *truly creative research is best pursued by maintaining close coupling between the researchers and those dealing with day-to-day operational challenges.*

Employ Proven RDT&E Management Attributes

The government generally found success when it separated the effort to solve a specific problem from every-day research, development, testing, and evaluation (RDT&E) process. As we understand it, DNDO is intended to do this. Its success depends on its ability to emulate key features of previously successful efforts to bridge government, academia, and industry to make rapid leaps in technical capabilities using what today we call transformational and evolutionary R&D. Examples include the Manhattan Project, the Apollo Project, the U-2, SR-71 and F-117 at the "Skunk Works," and the Strategic Defense Initiative.

The Center for the Study of the Presidency began a project on the issue of accelerating R&D for a more comprehensive defense against the smuggled nuclear weapons threat in April 2004. That project will issue a brief summary and review of the management characteristics that made such models as the Manhattan Project, SDI, and the Skunk Works successful. I would be happy to share the findings with you and the Committee once available.

A mini-Manhattan Project today should focus specifically on the detection of nuclear weapons and materials. The creation of a mini-Manhattan Project leading to a capability to detect the presence of nuclear weapons and materials could be conducted without seriously disrupting the framework of the planned DNDO and could have an enormous impact on America's and the world's future security. Key features of past successes include the personal commitment of the President and Vice President, a permeating sense of sustained urgency, and a strategy in which:

- high-risk, high-payoff developments are pursued, hedging against possible failure with alternative approaches carried in parallel
- R&D reaches from basic research through to fieldable prototypes;
- the R&D is done mainly outside of government by large, integrated, multi-disciplinary, R&D teams with forceful and experienced leaders, and with:
 - wide latitude to achieve broad, ambitious, mission-level goals
 - freedom to change R&D objectives and approaches quickly and flexibly, as the R&D proves what is feasible
 - direct, frequent, working-level contact between users and R&D people
 - the expectation of continued involvement to achieve both near-term milestones and long-term goals
- the role of senior, centralized government leadership is to set broad goals, secure funding, and provide freedom of action for the R&D teams by cutting red tape for them; and
- the ability is provided to waive certain procurement and personnel regulations designed to conduct ordinary government research and development.

That DNDO will report directly to the Secretary of Homeland Security is a positive sign. In addition to that, and in addition to personal commitment from the President and Vice President, a small group should be established within the White House staff to provide clout and top-cover for the exceptional R&D approach and to assure coordination of nuclear-related cross-departmental activities and the provision of appropriate support by agencies and departments throughout the federal structure.

Apply New Concepts of Deterrence

While classic nuclear deterrence fails in confronting this threat, it is wrong to believe that terrorists are undeterrable. The concept of mutually assured destruction (MAD) depended upon a fear of retaliation, even with accidental launch. Today's smuggled nuclear threat, however, must instill in the terrorist a fear of failure. A nuclear device would represent an enormously precious asset to a terrorist organization. An effective strategy seeks—via several means, hence a layered defense—to disrupt the enemy's planning and operations cycles, thereby reducing the attacker's confidence in their ability to conduct a successful attack. Thus by strengthening and continually changing our defensive tactics, the threshold against which a potential attacker must measure the likelihood of success can be substantially raised. This offers the concomitant benefit of requiring an enemy to conduct more complex operations involving more people with more resources and more communications over a longer period of time, thereby increasing the likelihood of discovery.

Creating a legitimate fear of failure, however, contributes to only half of an effective deterrent. If a potential perpetrator possesses the fissile material intended for delivery, a proliferator permitted it. While the nation's attention would rightly turn to mitigating and containing the impact of a nuclear device were one or more detonated in an American city, all those complicit in the attack would not have died in carrying it out. The source of the nuclear material must be held responsible for allowing it into those hands. Finding the source requires excellent nuclear forensic capabilities, which we lack today. Credibly attributing the material to a source and threatening retaliation can complicate the potential perpetrator's ability to obtain nuclear material in the first place.

But what if it's an accident? What if the proliferator is a careless nation, perhaps too unstable or otherwise insufficiently committed to guarding its nuclear material? Central to MAD during the Cold War was the stated intention held by both the U.S. and the Soviet Union that accidental launch constituted an attack and would elicit retaliation. While disproportionate on its surface, it resulted in an effort on both sides to act as better stewards of their deadly stockpiles. Nonproliferation regimes remain vital today, perhaps more than ever during the Cold War. Today's realities, however, must inform the message we send to proliferators about the consequences of their actions.

Final Thoughts

Secretary Chertoff's Homeland Security Advisory Council established a Task Force on the Prevention of Weapons of Mass Effect (WME) on U.S. Soil. Exhibiting an encouraging mix of experts inside and out of government Norm Augustine Chairs the Taskforce's subgroup on the air domain while former Secretary James Schlesinger chairs the land group and I chair the sea subgroup. Under the chairmanship of Lydia Thomas, this new Taskforce, slated to report out in October to the Secretary, holds promise of addressing several of the challenges cited above. Charged with assessing current defensive efforts and mapping a layered defense in depth to prevent the use of WME, the Taskforce can be expected to inform the development and role of the DNDO. Mr. Vayl Oxford, acting director of DNDO for the Department of Homeland Security is assigned to my subgroup as one of the subject matter experts. His testimony tomorrow I am certain will add productively to your committee's constructive oversight.

Thank you for the opportunity to share these thoughts with you and I look forward to meeting with you and the committee in the future.

Mr. LINDER. Would you care to comment on that? Colonel Larsen?

Colonel LARSEN. I am not sure I can in an open hearing.

Mr. LINDER. Dr. Iklé?

Mr. IKLÉ. Yes. It is a good suggestion. I have worked with Dr. Abshire on this problem. He has been very much engaged, as a few of my other colleagues, and he is pointing in the right direction. It is an Achilles heel. You need operational capability. I mentioned earlier in my testimony the need for exercises, tests to get going, which have to be briefed back to your committee so you can make sure something goes on.

What I am worried is that the Domestic Nuclear Detection Office becomes a domestic nuclear discussion organization and they don't really work the things in the field and they don't work the project

in the laboratories. They parcel out small grants here and there for keeping private industry happy, and we are not moving forward. This has been going on, and many of us have been watching it, for 4 years, if not longer, and in some ways for 7 years. We knew what had to be done.

There is one more point to be made on the improved detection sensors and forensics, on which we all agreed they are desirable. It may take several years, and if the time comes when proliferation poses new challenges because of the fuel cycle changes or whatever, when that time comes, we need to be ready. If you don't start now, we will not be ready 10 years from now.

The Department of Defense, when they develop a new airplane, they have to plan 10, 20 years ahead. Missile defense has been in the works for a long time. These things cannot be done in 6 months.

Mr. ALLISON. We should have started 4 years ago. We need to start now. I haven't seen Abshire's proposal, though I generally think of him as a pretty sensible fellow, so I don't know quite what he means by "operational."

I think I would be dubious about this organization as I don't see it having any kind of authority that would look like an active intelligence or active police authority. I think it has got to be hooked up with—you know, if it hears that there is a nuclear bomb or has some reason to believe there is a nuclear bomb in Boston, I hope they are going to send the NEST teams, because those are the operational people that do that now, and they should be doing it. If it is a question of intercepting and arresting somebody, that is either going to be inside the country, the FBI, or outside, CIA.

So I am not quite sure what the "operational" is. I think the notion of testing and even actually red-teaming, where they notice how easy it is to do things, which are embarrassing, but those are the things you learn from.

The reason why we know that Los Alamos has had problems is because the former seal groups test them from time to time, and almost every time they test them they overwhelm the security system. So you learn from that, gee, we got to get our security system better organized. It is embarrassing, but it is the only way I think you learn.

Mr. LINDER. Does Mr. McCaul wish to inquire?

Mr. MCCAUL. Thank you, Mr. Chairman.

Dr. Allison, I have read your book on nuclear terrorism. It is an eye opener, and I think you lay out an excellent strategy for dealing with this real problem we have.

Al-Qa'ida stated publicly they have the right to kill 4 million people, 2 million children, and they are not going to accomplish that by just flying airplanes into buildings. So that really raises the issue of the prospect of a nuclear bomb going off in the United States.

I went to the Houston Port Authority about 2 weeks ago, and I was glad to see that the radiological sensors will be put in place in the short term. But that is really our last line of defense. I am also concerned about between the ports of entry, where you have a lot of the smuggling going on in this country.

Of course, in your book, Dr. Allison, you raised the issue of nuclear briefcases, nuclear bombs that could be about the size of a bale of marijuana coming across over our border. In terms of the technology on the border itself with these types of sensors between the ports of entry, I don't know what could be done in that prospect.

But, secondly, beyond that, as Chairman Cox mentioned, the issue of intelligence, to me that really is the key to the prevention aspect, dealing not with our last line of defense but our first line, detecting this material. With Dr. Kahn being the master proliferator, I think it very difficult to secure nuclear materials that may be out there, but I think the intelligence route is the best line of defense.

Lastly, I just want to point out, I agree the domestic name was probably phrased by a lawyer in the Homeland Security Department who thought their charge was with domestic affairs only, but I do think the national term is more fitting. And I don't know if the idea of this National Counterproliferation Center, it seems to me it would be somewhat duplicative if it couldn't be sort of merged into one organization.

I wanted to get Dr. Allison's comment on the first question and, Dr. Iklé, your comment on the second.

Mr. ALLISON. On the first question, on intelligence, I think you are absolutely right that the intelligence is the longest pole. The chances of finding something if you don't have a clue about it are very, very, very low. So I think what Randy—what Colonel Larsen reminded us, the WMD Commission report is a good report, and it says rightly that we basically have not invested heavily in the kind of intelligence capabilities we would like if nuclear terrorism were the problem. So that is a big, big, big issue. I would say it is first at the top.

On your point about between the major portals of entry, this is the kind of another one of the dirty little secrets about this whole picture, but I say provocatively that we remain a country almost without borders. So terrorists who are bringing a nuclear bomb or material for a bomb into the country are going to come through a highly protected port or portal where they get inspected, and if we build the fence higher, higher and higher and have 100 miles with no fence, what happens?

We have actually run this experiment down by San Diego. So we have a huge fence and no one comes to the fence, amazingly, but more people come than came before, because they come around the fence.

Down in Houston, the BHS numbers for 2004 have 65 percent more people, 65 percent more illegals, coming into the country in 2004 than in 2002 right after 9/11. So you would say there is something not serious about this. I would say this is not the topic for this hearing, but I think it is absolutely an appropriate topic for a committee that is charged with Homeland Security to say, is this working?

Mr. MCCAUL. Thank you.

Your comment on the organizational structure?

Mr. IKLÉ. Right. The Proliferation Center, if it is set up, would be a twin of the National Nuclear Detection Office, we have it

named as of now, NNDO, and could be melded together. But I think the proliferation goes into somewhat different—could be just two parts, a twin structure. Proliferation gets into other questions of diplomacy, of working on Iran with the Europeans and so on.

Then to carry out some of the implementation, like the PSI, Proliferation Security Initiative, where you want to board ships and check for nuclear weapons, then you need the things that DND or NNDO is supposed to develop and exercise and do research on. But if you put it together or not, I think I have no fixed view on that.

I do think it is important to take a long-term view of getting better technology so we can, 10 years from now, cope with the new proliferation dangers which are coming. We see them coming down the pike, the new ways of using plutonium fuel, that the Department of Energy has a program with hundreds of millions in collaboration with Russia, which I don't think has been looked at carefully from the point of view of proliferation.

So these things are coming and you do want to be prepared, and that is where we want to engage our best talent in the best location, to repeat myself, in Department of Energy laboratories, with proper management.

We have had too much in the last few days, the last few years, when work was done on sensors, parceled out, small research projects, to universities, to some of the labs, and the whole thing was not put together. It hangs together, because, as I say in my written testimony, you are talking about two elements, plutonium and uranium developed in the lab 63 years ago, studied there for 60 years, how to make them into bombs. And because it hangs together, you can come up with new ideas. And let me remind you again, there are ideas that are not being worked on for finding highly enriched uranium, despite the shielding. This is a life-saving device for our country. Let us work on it. Let's empower the people to do the right research project.

Mr. MCCAUL. I see my time has expired.

Mr. LINDER. The gentleman from Washington.

Mr. DICKS. I want to thank the witnesses here today.

I am troubled somewhat on this organizational point that Colonel Larsen made. Don't we have to sort out whether it is going to be the National Counterproliferation Center that is going to take the lead on this or is it going to be the domestic or National Nuclear Detection Office? Colonel, what is your advice to us here?

Colonel LARSEN. Thank you for asking that. I really wanted to comment on that. I realize markup is tomorrow.

Mr. DICKS. That is a question also in my mind. Why are we rushing to judgment here on one the most important issues when we haven't had a chance to look at the bill? To me, we ought to take time and get this one right.

Colonel LARSEN. You asked my opinion, so I will give it to you. The National Counterproliferation Office should be in DHS, and the detection office should be a sub-unit under it. If you look at the charter of what it says here, it says this subcommittee is nuclear and biological counterproliferation detection and all those other things. It is right here.

That is why I was so pleased when I saw this subcommittee created. I go, they got it right. This is good.

So now you got this initiative that Congress passed, the President signed, and said, well, okay, maybe we should have this National Counterproliferation Office. We agree that nuke and bio are the biggest threats we face to our homeland. Why not put the National Counterproliferation Center in DHS and give it some real authority to really do a new job? Most of this is just 22 agencies we stapled together, probably the right move, but now to give it a real mission for protecting us.

So you asked for my opinion. I gave it to you.

Mr. DICKS. Anybody else have a comment here?

Mr. ALLISON. Well, I haven't thought my way all the way through this, but I actually like Colonel Larsen's suggestion. I think that what you have here, to the extent that this is an office that helps organize and fund research so that we improve the technologies and capabilities for everybody, whoever they are, using them globally, whether they are used by Special Forces or by NEST or by a guy at the port, that part I think makes sense.

But I think that Colonel Larsen has a very good point, in my view, which is you try to think about what this National Non-proliferation Center will be, assuming that it is, because it is now just an item on a piece of paper. The proposition that it might work within this structure I think is—haven't worked my way through it.

Mr. DICKS. I would suggest, and if I could have the attention of the chairman, to me it seems like it would be better for the chairman and the chairman of this subcommittee, Mr. Linder, to sit down with the top people in the administration, and hopefully keep the Democrats advised, and work out this thing.

I think having two separate offices doesn't make any sense. Obviously, one of them is going to be looking more in the intelligence arena, and one of them could be doing the R&D on the detection equipment. That may make sense. I even like Colonel Larsen's idea better of putting them together and making the DNDO a sub-unit of the National Counterproliferation Center.

Mr. COX. If the gentleman would yield, I agree with that as well; and, in fact, completely independently, several of us have reached that same conclusion. The balkanization that Colonel Larsen described in his testimony is the enemy. The reason we have a Department of Homeland Security is to get a grip on such things.

Just to the gentleman's point about working with the administration, we had a discussion about this yesterday with Michael Jackson, who is, as you know, the deputy at DHS. I expect that the administration is going to be moving with alacrity on these concepts.

The law that we passed in Congress doesn't say where NCP is located, so the President could choose to put it in the Department of Homeland Security. I do think there is an awful lot of discussion about putting it under the DNI. Putting these things together would be very, very sensible.

Our authorization bill is going to take a very long time. Whether we ever get to conference with the Senate, for example, is still up in the air. Meantime, real life is going to be preceding well ahead of these events, so the only reason the committee is moving forward with our process is so we can weigh in on this.

Mr. DICKS. But why would we go ahead and try to authorize? As I understood it, we are going to try to authorize DNDO tomorrow. Why wouldn't we straighten this thing out first and then do this?

It seems to me we ought to wait before we make a decision to authorize this until we see what the overall situation is. I think we should take a little time here in order to get this thing right. And I think the suggestions that have been made here today are helpful. But I don't see how we can do that and have the kind of consultation we need to have in order to do it by tomorrow.

Mr. COX. If the gentleman would yield, we are only working in subcommittee tomorrow. We intend to be with this problem for a long time, and I think we will be with it for the entire year.

Mr. DICKS. So you say we could fix this in full committee?

Mr. COX. Absolutely. And not only that, but it will be months I think before we go to conference with the Senate.

Mr. LINDER. Dr. Iklé, did you want to comment on that?

Mr. IKLÉ. Yes, I am concerned about timing, and I agree with you, Congressman Dicks, we should do this very carefully. But it took 9 months, in fact, if you count all the phases, about a year to get this DNDO organization together. I would prefer you let the organization go ahead. It is not that formal. It can be changed, amended, something else can be added. But let's get started. We have been talking about this for 4 years without getting started with the long-term research.

Mr. DICKS. Are you talking about getting started on doing the R&D?

Mr. IKLÉ. R&D, exactly.

Mr. DICKS. I don't have a problem with that. I think that makes sense.

Mr. IKLÉ. You could have that under Homeland Security as it is in DNDO, or you could have it in a separate center. Then you can sort out whether you want to merge proliferation with the interdiction and detection effort.

Much of the counterproliferation, of course, is done in the Department of State, it is foreign policy, and I wouldn't be surprised if the Department of State would not want to go along with having all of that put under the Homeland Security Department.

But these things can take a long time to sort out, and the main thing is to start going with the long-term R&D and with some of the exercises that the organization, as it exists, could do. I think we all agree exercises are important so we can learn more, and then maybe amend it and develop it further a year from now.

Mr. DICKS. Dr. Allison, I just want to make one final point: Still the most important thing we could do is to spend the money to fund Nunn-Lugar, to accelerate the program to get these materials in the Soviet Union under control. What are those dates again? We could do it in 3 years or is it 13 years under the administration's approach?

Mr. ALLISON. I think that the point of greatest leverage is locking down or eliminating material at the source, so every mile away from that source it is harder for me to find it and easier for the terrorists to pursue it.

In that effort, the Nunn-Lugar money is a very important piece of the picture, but the diplomacy and actually presidential and sec-

retarial muscle is even more important. What President Bush and President Putin did at Bratislava by putting nuclear security up at the top of the agenda was a great step in the right direction. President Bush should have this on his agenda when he goes to Moscow on May 9. He should have it on his agenda when he meets with him in July at the G-8. The question should be, here is a timetable of the securing of material that could blow up Moscow and Washington, so where do we stand with respect to this?

As I say, if you are asking how can you explain that some objects of art are more secure in the Kremlin armory than nuclear bombs, that this is a historical accident and an accident, that we shouldn't find it acceptable.

Mr. LINDER. Mr. Lungren, do you seek to inquire?

Mr. LUNGREN. I know we only have a few minutes left for Dr. Allison, so it looks like the panel here on this side has reached a consensus that nonproliferation appears to be the number one issue and the most effective way; and, secondly, R&D is extremely important.

So let me talk about the third part, and that is actual installation or utilization of nuclear detection devices.

I am trying to get a sense from the three of you what do you think the quality of current technology is, number one; number two, does that mean that we ought to put significant amounts of money in installing nuclear detectors as they already exist, or should that money be better spent for further R&D; and, third, if in fact we are going to expand the utilization or installation of already existing technology based nuclear detectors, where would you emphasize their use or their placement right now?

Dr. Allison?

Mr. ALLISON. Excellent question. I would suggest—I will give you my answer, but I would say the committee could actually ask DHS or even GAO to go and conduct a test to see how easy or how hard it is to bring in nuclear material into the country through a port and through unmonitored ports; and I think the conclusion that you would find from that is that, with the current equipment currently operated, the odds of finding something, absent an intelligence lead in advance, are very, very low.

Now I don't know exactly, therefore, what the current installation program—what problem it is the answer to. I think it may be the answer to the problem for why it is that four separate people inspect my airline ticket when I go to National to see if it matches my driver's license, as if I were seriously trying to do something I would not be able to go on the Internet buy a phony driver's license, which I can, and that I would fail to coordinate it with the name on my ticket.

I would say this is a great version of dumb security, dumb security, and I would say there is a huge number of these, huge.

Now the business argument that can be made for it is this is really about reassuring people. People are not too smart maybe, and so if the guy inspects them four times they think somehow they are more secure. It doesn't work for me, but I would say that is the best argument I can make for it, if you are trying to make a rational argument.

So as between installation, other than for reassurance, at least on the basis of what I understand about the current capabilities for the seekers versus the hidiers and seriousness about research and development, in which I do believe if we are serious about it 5 years from now we will have something that works a whole lot better. So actually you could have the NEST teams—this would actually be a very interesting discussion and probably should not be an open hearing—but have some folks from the NEST teams come and explain how hard, how easy it is for them to find nuclear material if they know it is in a city. They will tell you, as is a fact, it is not a secret about this, that if they don't have a clue about which building—say you know it is in Congress, you know it is one of the Houses of Congress, can you find it? Answer, very, very unlikely. If I know it is in Cannon on the second floor, I got a somewhat better chance, and again it depends on the shielding.

Mr. IKLE. I am kidding, but it is becoming dangerous as he kept talking.

You are absolutely right, Graham Allison, on the dumb ways of handling it.

There is a smart angle, in answer to your question, about what deployment should we do now with the thoroughly inadequate sensors until we have better ones. It does make sense to put additional hurdles against the terrorists. Why? Because then they have to mount a larger operation. It may take two guys, it may take somebody having to get a forged I.D. card, or it will take shielding that is heavy, that can be seen. So you increase the chances for a normal, human-type intelligence to find something. You help our current intelligence capability somewhat by imposing obstacles to the movement and introduction of these nuclear weapons so that you force the terrorist team to mount a larger effort, and if they mount a larger effort, your chances of discovering it go up. That is the smart use of current installations.

Beyond that, I think that the thrust of your question—I would put most of the resources to improve the detection capability on the transformational R&D, as it is called in the charter.

Mr. LUNGREN. Colonel Larsen.

Colonel LARSEN. As I mentioned earlier, I agree with what they said. If I had better technology for detectors, I would put it where the stockpile is in the former Soviet states to make sure it doesn't leave there. We have got 95,000 miles of shoreline and 7,000 miles of borders. I am going to just bring it across someplace other than a big port. So detectors should be where it is all sitting right now, to make sure it doesn't leave there. I think that is the best expenditure.

Mr. ALLISON. I apologize very much, Mr. Chairman and members, that one of the rules at Harvard is that I have to go and teach my class. So I appreciate very much the chance to be here with you and would be happy to follow up on an individual basis or if people have specific questions, because I think what you are about is something hugely important.

I thank you for the honor of being here.

Mr. LINDER. Thank you for being here.

Does the gentleman from Massachusetts wish to inquire?

Mr. MARKEY. Thank you.

Mr. ALLISON. I apologize very much to my good friend and person whom I greatly admire, Congressman Markey.

Mr. MARKEY. I thank you very much for coming, Dr. Allison.

So just so you all understand, we are going to be voting on this bill tomorrow. The Democrats have yet to see the bill. We don't have a copy of the bill in our hands, and we are being asked by 5 o'clock this afternoon to submit amendments to a bill that we haven't seen yet. So we have to draft the amendments, but we don't have the bill that would then make it possible for us to amend the bill, but the deadline is 5:00 this afternoon, which is not a good process for a subject that is so important.

Then, tomorrow, we will hear from the administration on the bill, although the Democrats will have already had to have submitted their amendments to the bill that we haven't seen yet.

Then after the administration testifies, regardless of what they testify to, then we will then mark up the bill immediately after the administration testifies without any ability on the part of the Democrats to then amend, to formulate any amendments, based upon what the administration said.

So that obviously is a very flawed process on what the President says is the single most important issue facing America. It just is not the way in which we should be conducting this.

I can understand where that might be the case if we were talking about drilling in the Arctic Refuge or some other issue, but this is the most important issue. The Democrats don't have a copy of the bill. Our ability to amend expires tonight at 5:00 without having seen a copy of the bill, and then the administration will testify tomorrow.

Mr. COX. If the gentleman will yield, I believe the gentleman was perhaps not present when Mr. Dicks and I had a conversation earlier on this topic. The administration is going forward with these proposals in real life.

Mr. MARKEY. No, no, no, I heard the whole conversation. I am only talking about tomorrow.

Mr. COX. Insofar as the procedure is concerned, I don't believe it is any restraint on any member offering any amendment in subcommittee markup. It is simply a convenience if you want your amendment distributed before the hearing, to have it turned in by a certain deadline.

Mr. DICKS. Why can't we see the bill, Mr. Chairman? This is a situation where we haven't had a chance to look at the bill.

Mr. COX. There will simply be a committee print. There is right now before us, it is my understanding—you have what we have which is to say while you don't have leg language, you have something written in plain English which is better, because it is in leg counsel. The only reason it is not before you in bill language is that it is in leg counsel.

Mr. MARKEY. But why wouldn't we mark up on Thursday? In other words, why wouldn't we have a bill circulated to all the members? Because I don't know if the Republicans have a copy of the bill either. I assume they don't.

Mr. COX. I will yield to the gentleman, it is his time, and we ought to discuss this without burdening our witnesses with it, but I am certain that Chairman Linder and certainly I will make every

effort for all the members on both sides so that we can do this collaboratively and collegially. There is no rabbit in the hat here, I assure you.

Mr. MARKEY. But there is no collaboration, I might say. We haven't seen the bill. Our deadline is 5:00. We were told we had a guillotine—why have a 5 o'clock deadline? Why not have us be able in real time, after the administration testifies tomorrow, when the bill is now before us, to then be able to amend it based upon what the administration testifies?

Mr. LINDER. Will the gentleman yield?

Mr. MARKEY. I will be glad to.

Mr. LINDER. I think the chairman made it clear that the 5 o'clock deadline was not the end of time to submit amendments. You will be able to do that during the markup tomorrow. But the 5 o'clock deadline was so we could distribute to all the members of the subcommittee a copy of what you might propose.

Mr. MARKEY. When will we have a copy of the bill?

Mr. LINDER. This evening, I expect. This afternoon.

Mr. MARKEY. Before or after the deadline?

Mr. LINDER. We are hoping at 2 o'clock.

Mr. MARKEY. And why is it we are going to mark up the bill immediately after the administration testifies, instead of the members then having the ability, at least for one day, to think about what the administration recommended and then trying to draft a bill either reflecting what they said or, conversely, adjusting what they said because the committee did not react positively to their presentation? Why would we immediately go into a process that made it almost impossible for us to intelligently and thoughtfully respond to what the administration's recommendations were to us?

Mr. COX. If the gentleman would yield, I really don't want to have this discussion before these witnesses, because their testimony is very valuable and I think we ought to be inquiring of the topic at hand. But I will say that this schedule of subcommittee and then subsequently full committee hearings and markups is driven by the floor date that we have for an authorization bill.

I think our choice is simply whether we wish to exclude this from the authorization bill, which is something that we can definitely do, but we have got to be on the floor for our scheduled time for an authorization bill in order to be there before the appropriators, in order to make sense of this process.

So we will be doing legislation throughout the year. It is entirely possible that we will simply excise this altogether from the bill if we don't have any committee sense of where we want to go with it. I think we need to take this topic up in real time simply because it is happening, whether we involve ourselves with it or not as the Congress in real time, in real life, in the executive branch.

Mr. LANGEVIN. If the gentleman will yield, I would just like to be on record in echoing the sentiments of my colleagues, that I don't think it is too much to ask that we put this off for a day so we can at least have an opportunity to look at the bill and offer responsible amendments and then proceed with the process. I think there have been a number of questions that have come out of this hearing that have been very valuable and helpful and could very

easily be included in a proper amendment to make the bill even stronger. So I would request that the chairman consider that.

Mr. LINDER. I will consider that. The time of the gentleman has expired.

Do the witnesses have just a little bit more time for another round of questions?

Mr. MARKEY. Mr. Chairman, I beg the indulgence of the chairman. I actually didn't use much of my time.

Mr. LINDER. You actually used it all.

Mr. MARKEY. I mean, I yielded much of it to the chairman of the full committee so he could make his points, and I did defer and tried not to interrupt him. The consequence was I then lost my time. I would just ask, out of courtesy, because it was a colloquy that I felt was important for the committee to engage in and the chairman of the committee did participate in it, as did the chairman of the subcommittee, that I be allowed to ask some substantive questions.

Mr. LINDER. The gentleman is recognized.

Mr. MARKEY. I thank you.

My first question would be, wouldn't you have liked to have had a copy of the bill before you came here to testify?

No, I am going to leave that.

The administration right now is actually proposing a new round of nuclear bunker busters, kind of baby nukes, while we are telling the rest of the world they should begin to dismantle their nuclear weapons programs wherever they might exist. Do you see any problems with that, with the administration pushing for a new nuclear weapons system while we tell the rest of the world that they should not engage in it at all?

Mr. IKLÉ. Congressman Markey, on your first question, which you withdrew, I did get a copy of official use only presidential directive. So since it is official use only, I can share it with you, which tells me the essence of the DND, though not until bill form. On the rest, it is not for me to comment on that issue.

On the second question you raised about the earth-penetrating nuclear weapons, contrary to what many of my friends or colleagues in the Department of Defense argue, not all of them, I am not in favor of it, for the following reason: Less that it will stimulate proliferation, I don't think that is one of the results, but more that it is a waste of effort and money. Because if the President should decide to use a nuclear weapon to go after a bunker that contains nuclear weapons, it is almost 100 percent sure that the nuclear weapon will first have been used against us.

I can't imagine the current or future Presidents wanting to terminate the non-use period that lasted for 60 years to go after an uncertain bunker. I can't imagine that decision.

But if we have been attacked, heaven forbid, by a nuclear weapon, say from Korea, a missile, or they attacked Japan, then I don't think we would care that much about using one of the existing large yield weapons, even though they cause much more casualties than we would ever want to cause.

So this fine-tuned, clean nuclear weapon use for that contingency seems to be a very unlikely event and therefore not worth the cost and effort.

Mr. MARKEY. Thank you.

Colonel Larsen, I don't know if you followed the story that ABC was able to bring into the country several kilograms of depleted uranium. You probably followed that story.

My question to you is, while I am supportive of new detector technology or screening algorithms as part of long-term efforts to improve our capabilities in this area, I think that the Department of Homeland Security should be focusing much more closely on short-term, less-expensive solutions, such as moving the detectors closer to the sample and other engineering measures that would improve the signal-to-noise ratio. Do you agree with that?

Colonel LARSEN. The problem is, sir, I don't know how to move it closer to the sample, I guess is the problem. Six million containers come in this country. How are you going to—when I put it inside that small box, inside that 40-foot steel container, the physics is not there today to get that signature you are looking for.

Perhaps in the future—I am not the physicist here—there would be some technology, but today—sat in this same seat in February for the Budget Committee, and I pointed out to them the gamma detectors outside the building, you know, are not a very good investment of many taxpayer dollars. When they get the nuke this close, who cares if we know it is here? It is too late. The fact is, that is pretty much the case with our ports today.

Mr. MARKEY. Thank you, Mr. Chairman.

Mr. LINDER. I would like to ask both of you this question: Some years ago, the government got involved in a very expensive project to outline and discover the human genome, very important research, and it will be very valuable in the future for health care and medicine. After many billions of dollars were spent, an upstart company with private investments and 1/20th of the money beat them to the task. Are there private investors out there who are seeking to make a lot of money off detection technology moving ahead on the challenge and do they have the latitude, I guess, to do that?

Mr. IKLÉ. There are some ideas that you get from private companies and even from graduate students in physics. They mostly have to do with the deployment of the sensors, how to cope with the millions of containers and so on. Some are very clever ideas, and those should be garnered by the long-term transformational research project. They should have eyes and ears open to the physics professors in all the universities who can contribute, even to the students, and certainly to private companies for the deployment.

For the essential part, it seems to me unlikely that a private company could do the research with the knowledge about how you can build a nuclear explosive and the experience with the plutonium and enriched uranium that you do have accumulated in the labs. So I think is a contributory role, but it is not the central, leading role, in my view.

Colonel LARSEN. I am not sure I am qualified to answer that one, what the civilian capacity is. The only concern I would have is all of the knowledge required to develop those sorts of new detectors, if that knowledge somehow got to the bad guys, then they would know how to counter them. So I think I agree, back to what we

originally said, was the labs is probably the best place for the hard science, and then turn it over perhaps for the production capability.

Mr. IKLÉ. Exactly. One more point, forensics was mentioned as important. We all agree for deterrence it is essential, and that gets very much into the classified domain and it has to be done in a centralized place in the U.S. Government.

Mr. LINDER. You mentioned transformational research three or four times this morning. Can you give us an indication in this open session in which direction it is going in?

Mr. IKLÉ. That name is in the charter which—that was worked on for a year, and that is why I use it, because people are familiar in this area. Which way is it going this year?

Mr. LINDER. Which direction the research is headed for? Is it better detection? What are we looking for?

Mr. IKLÉ. The ability to detect a plutonium-based weapon at much greater distances, at much greater speed, a combination of the two, so you can run 10,000 containers through a gate and you can check each one with enough confidence of finding it. The ability, which we do not have now, to detect uranium-based bombs, which are more difficult to detect because uranium doesn't emit these signals.

The ability beyond this is a point we hadn't mentioned. It is very important to use active interrogation. You send radiation into the container. You have to do that carefully so you don't hurt the crews on the ship and so on. But you have to be prepared for it.

We may get kind of a 9/11 wake-up call in this area, and we are certainly willing to do much more than we want to do now, which is do things with certain political risks. Then you have to be technologically prepared to do this active interrogation that can aid you much further in finding things.

So it is a combination of these new initiatives which intellectually have been thought about but haven't been worked out yet so we can use it.

Mr. LINDER. Thank you.

Mr. Langevin.

Mr. LANGEVIN. Thank you, Mr. Chairman; and again, gentleman, I want to thank you for your testimony, because I think a number of important things have come out of this hearing today. In fact, a lot of questions have been raised.

I would like to get to one of the most important in my mind, which is, before we rush to create and authorize this DNDO office, I think the last thing we want to do is take a feel-good measure and lead ourselves to believe we are actually accomplishing something of substance.

So the question I have is, would we be better served by, instead of authorizing a DNDO office, keeping its responsibilities, dividing it up and keeping its scientific research work, the R&D work, in the S&T directorate under Homeland Security, and would we be better off keeping the other responsibilities of DNDO in the National Counterproliferation Center in working with that, rather than creating another layer of bureaucracy? Are we reinventing the wheel, so to speak, by moving to create and authorize a DNDO office?

Mr. IKLÉ. This is an important question, and the S&T office, of course, has in a way the responsibility now in Homeland Security. But while they have done very useful things, they have not moved ahead on a vigorous transformational research program. They signed off.

I am sure they were represented in this interagency drafting process of the DNDO charter that we have in front of us, and they signed off on this. It is repeated three times in that charter, the importance to do the transformational research under the aegis of DNDO.

Why is that more advantageous? It brings in the Department of Defense as a direct link. The Department of Defense has considerable research experience and research capabilities and the experience in guiding complicated research that has to go on for many years that can help the people in S&T to do it effectively. It brings in the Department of Energy in a more direct way than it is now brought in Homeland Security. Homeland Security is not a research establishment so much as a conglomerate of the agencies that existed before.

For this very important, long-term research effort, you want to get all the help you can get from the Department of Energy, the Department of Defense; and I think DNDO does pull this together. So I would go the DNDO route.

Again, I think this could even be an outcome of your legislative deliberations. It can be a vehicle to get started next week or next month at least or this summer. They are set to get started. Let them get started, and a year from now you can make a different bill or put it in the bill.

I am not even sure DNDO requires, Mr. Chairman, requires a bill. It is an interagency organization that would be helped by legislation, but it may not be essential for its start. I don't know. It is not my expertise.

Colonel LARSEN. I think it is a very interesting question; and the real answer to it is, who do you want in charge of preventing a nuclear attack on America? Do you want it to be the Director of National Intelligence? The current bill says—I don't know, the Chairman said something about he wasn't sure where the National Counterproliferation Center would sit. The piece of legislation I read said that the Director of the Counterproliferation Center would work directly for the DNI. That tells me where it would be. So should that be the office over in intelligence that has the biggest responsibility for preventing a nuclear attack on America, or should it be in the Department of Homeland Security? When you answer that question, that tells you where it should be.

Mr. LANGEVIN. If you could just finish that point, what is your recommendation on that point? Who should be responsible?

Colonel LARSEN. I must tell you, I found out about this hearing on Friday, and I spent a lot of time thinking about it over the weekend, and I think frankly I need a little more time to think about that. I don't want to shoot from the hip, because I think it is such a critically—I would be happy to take that for the record and think about it for a week and send you something back, because I think it is a critically important question.

What I do know is, I would like one organization, as much as possible, in charge. I know you can't perfectly do that in this town.

Colonel LARSEN. But I would like—I think this committee would like to be able to call one person up here and say, what are you doing to prevent a nuclear attack.

Mr. LANGEVIN. I agree with that and I would like you to take that for the record if you could. I would be interested in hearing your input.

Mr. IKLÉ. One suggestion here. We may have—I am sure it is on this side, not on your side—worked under some confusion about the Nonproliferation Center. The way I understand it, it is to do better work on intelligence collecting regarding proliferation, the Khan network, what the Libyans are doing, what Iran is doing. There has been a—as you know, a proliferation center in the CIA for a long time. And this would be to elevate it. That is, the intelligence, not the diplomatic work that is done by the State Department on proliferation, not the interdiction work that is done by the Defense Department. And we have been talking about this proliferation center as if it would do—everything was our mistake—as if it would do everything on proliferation. The way it is understood it is intelligence, and I think it should be left in the intelligence organization. Then the intelligence has to feed into DNDO, DOD, State Department. And as to who is in charge for preventing a nuclear attack on the United States, I think it is the Commander in Chief.

Colonel LARSEN. I don't think that is quite the way the bill reads, though. That may have been the intention.

Mr. LANGEVIN. I want to thank you gentlemen for your testimony. And on that point, Colonel Larsen, what you stated on that question that I posed to you, that you needed about a week to think about it. I think that is another indication as to why we should not be marking up the bill tomorrow and we should have additional time to work through this issue.

Colonel LARSEN. I don't mean to be hurting my nonpartisan credentials here, but I really would. I would like to give you a good answer to that and I just don't feel like I want to do that right at this moment.

Mr. LANGEVIN. Thank you.

Mr. LINDER. Mr. Lungren, no questions.

Mr. Markey.

Mr. MARKEY. I thank you so much, Colonel, for your comment. The "congressional expert" is an oxymoron. We are only experts compared to other Congressmen. Once a real expert shows up, then we are not experts anymore. And that is why we have hearings and that is why we have the administration in tomorrow, so that we can hear from the experts on the subject, and, then as congressional experts, try to make the best judgement which we can. And so that is the—you know, the kind of conundrum that we have right now in terms of the processing of this legislation.

What are the other measures, in your opinion, that the Bush administration should be taking to minimize the risk that nuclear weapons material could be smuggled into the U.S. for use against us in a terrorist attack?

Could you just give us, could you each give us your 1-minute summary list of the measures you would like the Bush administra-

tion and the Congress to take to keep these materials out of our country? Just tick them off for us.

Colonel LARSEN. I can give you the short list for me, is there is more than 130 research reactors out there that have highly enriched uranium. The one at the University of Wisconsin could make three Hiroshima-sized bombs. I think we ought to police that up as quickly as possible. Most of that is outside of the United States.

The things that I think all three of us have talked about in the former Soviet states is securing that and eliminating it when possible, the cooperative threat reduction sort of programs that I don't feel that have perhaps had the priority that they should have.

Mr. IKLÉ. I would agree and add to that that it doesn't make sense to free the export of highly enriched uranium for creating medical supplies where it is not necessary. That is an arcane provision. Congressman Markey, you have been involved in stopping that and I am on your side on that. It is totally unnecessary, the export of HEU to Canada for creating medical supplies. I think it was called the Burr amendment last time around. It is in the energy bill that is floating around there.

Mr. MARKEY. And why is that dangerous?

Mr. IKLÉ. Well, it is not super dangerous, but it is just not needed. It is not the right signal to give. And on the HEU and research reactors, I was trying to get rid of those when I was director of the Arms Control Agency in the 1970s, and we are still not there. We have been very slow moving, and I hear from back channels that the Department of Energy is still slowing it down again.

So these are easy things to do. They are probably not the most important. The important ones have been mentioned, about exerting influence and pressure on the Government of Russia to protect itself and us by better locking up the systems, the fissile material. And upgrading the intelligence; that has been already mentioned in the WMD Commission, and hopefully will be implemented.

And then last, let me mention it once more, the long-term research to give us better tools than old-fashioned radiation detectors.

Mr. MARKEY. Thank you.

Mr. LINDER. Mr. Dicks.

Mr. DICKS. Tell us about this global nuclear detection plan. They talk about an architecture for global detection beyond just doing research and development on what we are going to do in the United States. Secretary Iklé, what do you see as part of this global architecture?

Mr. IKLÉ. I am afraid I have not seen a description of it. I am not sure I can answer that.

Mr. DICKS. Well, what should it have?

Mr. IKLÉ. Well, one is the intelligence that is multifaceted. Human intelligence has been very important for the Khan system; other events that helped us unravel the Libyan connection, and then one led to another. That is one of the achievements of the Intelligence Community.

And then our failures, which the WMD Commission and the classified appendix—which I haven't seen, but I am sure you can consult—get into.

So that is the general intelligence field, all sources, overhead, HUMINT, political intelligence, what have you.

And then once we have more powerful detectors, 10 years from now, hopefully, we might then place those in many areas and find things that are moving that shouldn't be moving. But that cannot be designed yet, because we don't know how good these improvements will be 10 years hence

Mr. DICKS. This also, unless you are doing it in space, would require the cooperation of other countries. And I think this is a subject that hasn't been mentioned much today. But if you think about intelligence, one of the things that you must have is cooperation between the Central Intelligence Agency and all these other international agencies, doing similar work in their own countries. And to me, that kind of cooperation is extremely important if you are going to have, as you mentioned, the kind of HUMINT intelligence necessary to be effective here.

Colonel LARSEN. It would also take cooperation within the U.S. Government. It was not long ago, a matter of days I would say, that a container got hit overseas for a radiological thing, and it was 2 years later until DHS found out about it. So part of that architecture is just communicating with our—inside our own government. That certainly needs to be in place.

Mr. DICKS. Should TTIC be involved here, too? I mean, this is the intelligence—

Colonel LARSEN. TTIC doesn't exist anymore. It has now been taken over by the National Counterterrorism Center, I think. It is actually gone now.

Mr. DICKS. That is good to know. So in the legislation, TTIC is taken out and this new thing represents the entire—has this become the entire intelligence function for the Department?

Colonel LARSEN. Talking to the folks who—I don't work there, but talking to the folks who work out there closely, they see good progress there, and that they actually have a National Joint Terrorism—you are familiar with the JTTF system. Well, they have the National JTTF sitting out there, and there is a lot of communication.

Now, there is still, you know, those problems about, well, you know, you don't have the right clearance I need for my agency. We live in tribes in this town, you know, and NSA is one tribe and CIA is another tribe and DOD is another tribe, and sometimes we don't communicate well between those tribes. They are trying to improve it out there, but I think that is a step forward out there. But TTIC is gone, sir.

Mr. DICKS. All right. Thank you, Mr. Chairman

Mr. LINDER. That concludes this morning's hearing. I want to thank both of you for spending a couple of hours with us. The information you gave us is valuable and we are grateful. Thank you.

[Whereupon, at 11:12 a.m., the subcommittee was adjourned.]

DHS COORDINATION OF NUCLEAR DETECTION EFFORTS, PART II

Wednesday, April 20, 2005

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON PREVENTION OF NUCLEAR
AND BIOLOGICAL ATTACK,
SELECT COMMITTEE ON HOMELAND SECURITY,
Washington, D.C.

The subcommittee met, pursuant to call, at 3:00 p.m., in Room 210, Cannon House Office Building, Hon. John Linder [chairman of the subcommittee] presiding.

Present: Representatives Linder, Shays, Simmons, Cox (ex officio), Langevin, Dicks, Harman, Norton, Christensen, and Thompson (ex officio).

Chairman LINDER. The committee will come to order. I would like to welcome our distinguished witness, who it is hoped will shed some light on the proposed Domestic Nuclear Detection Office within the Department of Homeland Security. Currently the full task of protecting our Nation from a nuclear incident is shared by the Departments of Defense, Energy, Justice and State.

The Homeland Security Act of 2002, however, requires the Department of Homeland Security to coordinate the government's efforts to identify and develop countermeasures to radiological and nuclear terrorist threats and the President's fiscal 2006 budget proposal proposes \$227 million funding for the DNDO within the Department.

It is no secret that the terrorists would not hesitate to acquire and use a nuclear device on American people. In fact it was just reported this morning in the press that Abu Zarfawi may have already obtained a nuclear device or bomb. Given the radioactive nuclear threat, this government should take very seriously its responsibilities in the area of nonproliferation and counterproliferation and ultimately to reject its traditional turf battles and bureaucratic obstacles. I, for one, refuse to put the American people in the position, again, asking what if.

Instead I expect this subcommittee to work toward ensuring that the relevant Federal agencies operate on the same page. We will be asking, among other questions, whether DNDO can take all of these competing interests and coordinate their respective efforts. Ultimately, we must all work toward a common goal, which is to ensure that a nuclear incident in the United States remains a worst case scenario and not a reality.

I now recognize my ranking member, Mr. Langevin, for a statement.

Mr. LANGEVIN. Thank you, Mr. Chairman. Mr. Oxford, welcome, and I look forward to hearing your testimony here today.

This hearing is the second of the Department of Homeland Security proposal to create a Domestic Nuclear Detection Office. After hearing from our panel yesterday, I think we can all agree that the nuclear terrorist threat is real and is going to require both short and long-term solutions. According to Secretary Chertoff, the DNDO will be the primary office responsible for developing these solutions, including overseeing the deployment of radiation portal monitors at our ports and border crossings to developing a nuclear, a global nuclear detection architecture.

Secretary Chertoff should be commended for taking the steps to create this office. But after hearing from our witnesses yesterday, it is clear that you have some major challenges facing you, Mr. Oxford.

I look forward to hearing how the Department plans to address these challenges, specifically the administration's budget request, which seems to fall far short of what is required to conduct the necessary research and development programs to ensure our country has the best nuclear detection equipment deployed to our ports of entry.

Second, what is the administration's domestic nuclear detection strategy and how does the DNDO fit into the larger picture? Also, given the large S&T role that the DNDO is expected play, what value added will this office bring to DHS or are we just creating another level of bureaucracy?

How will DNDO interact with the National Counterproliferation Center? I believe our government needs a national office to focus on the nuclear terrorist threat but without the appropriate structure, adequate funding and a detection strategy, the DNDO will not reach its full potential to be the policymaking office Secretary Chertoff intends it to be. As a result, our Nation will not be as secure as it must be from the deadliest of all threats that we currently face.

I look forward to hearing our witness address these and other issues of interest to our subcommittee members.

I would also like to take a moment to thank our chairman for his responsiveness to the concerns that were raised yesterday about the proposed timing of the markup of the DNDO legislation. Several of us felt that it was important to allow more time to hear from our witnesses and incorporate their suggestions and concerns into our consideration of the legislation. I am pleased that the markup has been postponed to accommodate a more meaningful deliberation on this issue. I appreciate Chairman Cox and Chairman Linder's willingness to work with us on this issue.

Again, Mr. Oxford, I want to welcome you here today. Thank you for being with us and I look forward to your testimony.

Thank you, Mr. Chairman, I yield back.

Chairman LINDER. Does the ranking member of the full committee seek to make a statement?

Mr. THOMPSON. Yes, sir, Mr. Chairman, very briefly.

I look forward to the testimony of Mr. Oxford, which as you know is a continuation of hearings we had yesterday. I also want to compliment our chairman for hearing the concerns of the committee

and making adjustments in some of the meetings for the committee in the future. But I also want to hear from Mr. Oxford how he expects to operate this administration some \$1 or \$2 million short of what actually is required to operate. The DNDO has potential, but there are some conflicts. I look forward to working with this committee on trying to separate those conflicts so we can move forward.

Apart from that, Mr. Chairman, I look forward to the testimony. Chairman LINDER. I thank you.

Mr. Vayl Oxford is Acting Director of the Domestic Nuclear Detection Office, DNDO, reporting to the Secretary of Homeland Security. He was also Acting Director of Department of Homeland Security Advanced Research Project Agency and the Department of Homeland Security. Prior to his appointment to DHS in October of 2003, Mr. Oxford served as the Director for Counterproliferation at the National Security Council. His responsibilities include the establishment of the national policy and priorities for CP that has been codified in the national strategy for combating weapons of mass destruction and in the President's proliferation security initiative policy.

Mr. Oxford, we are happy to have you. Welcome. Any statements you may have we would make part of the record without objection, and you may proceed in any way you seek.

STATEMENT OF VAYL OXFORD, ACTING DIRECTOR, DOMESTIC NUCLEAR DETECTION OFFICE

Mr. OXFORD. Good afternoon, Chairman Linder, Ranking Member Langevin and distinguished members of the subcommittee. It is my pleasure to come before you today to share with you our progress in establishing the Domestic Nuclear Detection Office within the Department.

Protecting the United States from nuclear threats is a job the Department of Homeland Security cannot work alone. I would first like to thank our partners in the Department of Defense, Department of Energy, the Federal Bureau of Investigation and the State Department for their help in establishing DNDO, and for their commitment for ensuring its future success.

President Bush has made strengthening the Nation's capability to detect and interdict nuclear weapons or illicit nuclear materials a critical national priority. To defend against this threat we must develop a robust layered defense, each layer designed to reduce the terrorist's ability to use such threats against us. The Nation must move toward strengthening this defense by developing and deploying an integrated detection and reporting infrastructure and to continue to improve that infrastructure over time.

On April 15, 2005, just last week, the President directed that the Domestic Nuclear Detection Office be established within DHS under the authority, direction and control of the Secretary of Homeland Security.

The DNDO is a jointly staffed national office created to establish strong linkages across the agencies and consolidate efforts within DHS for the deployment of a national nuclear detection system. The mission of the DNDO is to serve as the primary entity to ensure that the Federal Government develops, acquires and supports

the deployment of a domestic system to detect and report attempts to import or transport a nuclear device or fissile or radiological material intended for illicit use. The DNDO will facilitate collaboration among members of the interagency and components of DHS and bring together developers, operators and information providers to produce a single entity focused on this threat.

The DNDO's immediate strategic objectives include conducting an aggressive evolutionary and transformational development and research program to improve detection capabilities, to develop the global architecture infrastructure, to establish mechanisms for effective sharing and use of nuclear detection-related information and intelligence to maintain continuous awareness; and to establish standards, response protocols and training across the Federal, State and local levels.

Some of our key challenges within the mission and interagency nature of DNDO would provide a unique opportunity to fully integrate the government's approach to a serious threat by combining research, development, acquisition and operational support responsibilities.

Key challenges are, the nuclear detection research development test and evaluation which will emphasize acceleration of research, development and the fielding of nuclear detection capabilities.

To do this, DNDO will manage two separate RDT&E activities. The first will focus on the near term, which is defined as a 0—to 5-year time period, to develop capabilities that directly meet operational user needs to detect materials of concern. A major component of this development process is the focus on high fidelity test and evaluation, as well as user in the loop operational testing.

One of DNDO's major goals is to fully validate systems performance of legacy and newly developed systems so that we have a complete understanding of the effectiveness of the detection architecture.

DNDO will also manage a transformational research and development initiative intended to provide high payoff advances in capabilities. This transformational R&D will not be driven directly by operational requirements. Rather, these improvements are intended to provide capabilities that could potentially be so great as to provide new operational concepts or leap ahead technical capabilities.

A second key challenge is the development of the global detection architecture. The DNDO will develop the global detection architecture to be highly effective against the nuclear threat while continuing to seek the goal of not impeding commerce or the flow of people.

This development will be done with active input and collaboration with our interagency partners, who in turn will be responsible for the deployment of detection equipment overseas and around the Nation's military installations. DNDO is responsible for developing an overall global architecture that assesses and links the programs across the departments to ensure that the Nation proceeds with a single comprehensive prevention and detection strategy.

A third key challenge is a critical important goal of DNDO, and that is in the area of information analysis. In this case our goal is to enhance effective sharing and use of nuclear detection-related in-

formation and intelligence and to integrate this information with information from all mission related detection systems to provide a greater overall awareness. By fusing international and domestic information streams and intelligence information, the DNDO will be able to provide a better informed decision making environment.

Additionally, it is the vision of this office to have an aggressive red teaming assessments activity that fully assesses the operational and technical performance of the deployed architecture in order to offer insights that lead to more effective systems and operational procedures.

In conclusion, the effort to counter the threat of a nuclear attack against our Nation is one of our most critical missions. The establishment of the DNDO will greatly increase our ability to address this mission through a consolidation of national efforts, the establishment of a global architecture and deployment strategy and for providing assurance of appropriate alarm resolution and response capabilities.

The vision for DNDO is to set the global layered nuclear defense strategy and architecture for nuclear detection and reporting and to be fully aware of the efforts of the U.S. Government across the spectrum of nuclear defense.

This concludes my prepared statement. With the committee's permission, I request my formal statement be submitted for the record.

Mr. Chairman, Congressman Langevin and members of the subcommittee, I thank you for your attention and I will be happy to answer any of your questions at this time.

[The statement of Mr. Oxford follows:]

PREPARED OPENING STATEMENT MR. VAYL OXFORD, ACTING DIRECTOR, DOMESTIC
NUCLEAR DETECTION OFFICE, DEPARTMENT OF HOMELAND SECURITY

Introduction

Good afternoon, Chairman Linder, Ranking Member Langevin and distinguished members of the subcommittee. It is my pleasure to come before you today to share our progress in establishing the Domestic Nuclear Detection Office (DNDO) within the Department of Homeland Security.

Protecting the United States from nuclear threats is a job that the Department of Homeland Security cannot succeed at working in isolation, and I first want to thank our partners in the Department of Defense, the Department of Energy, the Department of State, and the Federal Bureau of Investigation for their tireless dedication to establishing the DNDO and their commitment to supporting the Office to ensure its success.

DNDO Mission and Objectives

President Bush has made strengthening the Nation's capability to detect and interdict nuclear weapons or illicit nuclear materials a critical national priority. Few will argue with the view that the threat posed by terrorists possessing nuclear or radiological weapons is one of the gravest that confronts the Nation. To defend against this threat, we must develop a robust layered defense, each layer of which must reduce a terrorist's ability to use such threats against us. The Nation must move toward strengthening this defense by developing and deploying an integrated and robust detection, reporting, and response infrastructure, and continue to develop improvements to this infrastructure over time.

In recognition of the magnitude of the danger posed by the nuclear threat, multiple organizations within the Department of Homeland Security and across other Departments have initiated programs to prevent these weapons from being used against the Nation and its interests. While these efforts are each individually important components to defend against the threat, it is now necessary to integrate our Nation's nuclear detection capability that guarantees a coordinated response. To optimize and advance these efforts, on April 15, 2005, the President directed that the

Domestic Nuclear Detection Office (DNDO) be established within DHS, under the authority, direction, and control of the Secretary of Homeland Security.

The DNDO is a jointly-staffed, national office created to consolidate efforts within DHS and establish strong linkages across the agencies for the deployment of a national nuclear detection system. The mission of the DNDO is to serve as the primary entity to ensure that the Federal Government develops, acquires, and supports the deployment of a domestic system to detect and report attempts to import or transport a nuclear device or fissile or radiological material intended for illicit use. In its creation, it not only will facilitate collaboration among members of the interagency and components of DHS, but, more importantly, among the developers, operators, and information providers to produce a single entity focused on this threat.

The DNDO has the following strategic objectives:

- Conduct an aggressive evolutionary and transformational research and development program to improve probability of detection by integrating and deploying current technologies and improving those capabilities over time;
- Develop the global detection architecture and ensure linkages across Federal, State, and local agencies;
- Enhance the effective sharing and use of nuclear detection-related information and intelligence in conjunction with other Federal Government information sharing activities;
- Maintain continuous awareness by analyzing information from all mission-related detection systems;
- Enhance the nuclear detection efforts of Federal, State, and local governments and the private sector to ensure a coordinated response; and
- Establish standards, response protocols, and training across the Federal, State, and local levels to ensure that detection leads to timely response actions.

Key Challenges:

The mission space of the DNDO provides a unique opportunity within DHS across the Federal Government to more fully integrate the counterterrorism community's approach to a serious threat. DHS will work holistically to combine research and development, acquisition, and operational support into a single office. By bringing together all of these efforts as well as the joint activities within our interagency partners, the DNDO will be able to ensure that the technology requirements of operational entities are efficiently prioritized and addressed. Moreover, DNDO will ensure that technologies under development are quickly transitioned to the field. Further, all technologies being deployed will have the necessary accompanying training materials, and response protocols will be established and adopted prior to deployment. This will ensure that deployed equipment is properly used and alarm information is reported to response agencies when appropriate. More importantly, this office is charged with the responsibility of working with our partners to establish effective information and intelligence sharing mechanisms for nuclear detection information that span the intelligence community, law enforcement agencies, and other government agencies. Coupled with this responsibility is the focus on establishing and maintaining continuous awareness by analyzing information from all DNDO mission-related detection systems both domestically and internationally.

Nuclear Detection Research, Development, Test, and Evaluation:

The DNDO will place a large emphasis on accelerating the research and development of nuclear detection technology. To accomplish this, the DNDO will manage two separate RDT&E programs, each with a unique and complimentary mission. The first of these efforts provides near-term (five years or less) improvements in deployed capabilities, directly meeting requirements of operational users.

The DNDO has established a Joint Requirements Board with membership including each of the operational users within DHS and across the interagency to formalize the process of collecting and prioritizing technology requirements. These requirements directly drive the goals of this evolutionary RDT&E program, focusing on providing spiral development of current capabilities.

These programs will focus on improving and rapidly transitioning capabilities that address threat materials of greatest concern. A major element in the DNDO development process is the focus on high-fidelity test and evaluation as well as user in the loop operational testing. One of the office's major goals is to fully validate systems performance of legacy and newly developed systems so that we have a complete understanding of the effectiveness of the detection architecture. When coupled with red teaming efforts, we will be able to effectively assess the health of our national nuclear detection system.

Meanwhile, the DNDO will manage a large transformational research and development program intended to provide high-payoff advances in capabilities. This transformational R&D will not be driven directly by operational requirements. Rath-

er, these improvements are intended to provide new capabilities that could potentially be so great as to provide new operational concepts for current system components. As these transnational technologies mature, they would likely be transitioned into an evolutionary systems development program.

Global Detection Architecture:

A second objective of the DNDO will be to develop the global nuclear detection architecture that will be highly effective against the threat and still avoid impeding the legitimate flow of commerce and people. This development will be done with active input and consultation with interagency partners responsible for deployments of detection equipment overseas and around the Nation's military installations. This detection architecture must be a multi-layered in nature. It must start with an understanding of the international programs and agreements that help secure all weapons-usable materials overseas, and continue with layers of nuclear detection capabilities at international borders and ports-of-departure overseas, domestic ports-of-entry and the Nation's borders, and, finally, within the Nation and around high-risk or high-value locations. The DNDO recognizes the great strides that have already been made, including the Department of Energy's Materials Protection, Control and Accountability, Second Line of Defense, and MegaPorts programs, the Department of Defense's Cooperative Threat Reduction Program, the Department of State's Export Control and Border Security Program and Nonproliferation and Disarmament Fund, and multiple DHS efforts to develop capabilities for detection, interdiction, search, and response domestically, such as the DHS Radiation Portal Monitor program and pilot programs in New York and Charleston. While this is by no means intended to be a comprehensive list of the government's efforts, it underscores the importance that the Nation has placed on defending against this threat. The DNDO is now responsible for developing an overall global architecture that assesses and links these programs in an effort to ensure that the Nation proceeds with a single, comprehensive prevention and detection strategy.

Information Analysis:

An equally important goal of the DNDO is to enhance the effective sharing and use of nuclear detection-related information and intelligence, and to integrate this information with information from all mission-related detection systems to provide a greater overall awareness. By fusing the international and domestic information streams and intelligence information, the DNDO will be able to provide a better-informed decision-making environment, enabling more effective alarm resolution, trend analysis, and threat awareness. This information analysis capability will be integrated with a detailed understanding of the systems performance of existing and to be deployed systems to increase our awareness and confidence in the global detection capability and effectiveness. Additionally, it is the vision of this office to have an aggressive red teaming system assessment activity that fully assesses the operational and technical performance of the deployed architecture in order to enhance our awareness of the adequacy of our screening process and to provide insights that lead to more effective systems and operational procedures.

DNDO FY 2006 Budget and Key Initiatives

As a new office, the DNDO-related budget for Fiscal Year 2005 includes approximately \$100 million through the Directorate of Science and Technology appropriated funding for radiological and nuclear countermeasures and will oversee \$80 million appropriated to Customs and Border Protection for the Radiological Portal Monitor Program. The President's FY 2006 Budget includes requests for DNDO-related activities through the Directorate of Science and Technology (\$227 million), and will oversee resources requested for Customs and Border Protection (\$125 million), and the U.S. Coast Guard (\$7 million)—for a total of \$359 million. Additionally, the Office of State and Local Government Coordination and Preparedness request includes \$600 million for Targeted Infrastructure Protection grants, some of which may be allocated to DNDO-related State and local equipment acquisition based on the results of the architecture development activity.

The budget request includes \$5 million to supplement the joint development of a global nuclear detection architecture that will support the acquisition and deployment of the domestic nuclear detection system.

The request includes approximately \$12 million to establish systems engineering efforts to integrate research, development, testing, and acquisition across the program. This includes the development of a comprehensive systems engineering master plan.

A total of \$80 million will be directed toward ongoing evolutionary research and development efforts for improved passive and active detection technologies and support systems, and an additional \$82 million will allow for the initiation of a major

program on transformational research and development to potentially lead to revolutionary changes in detection capabilities.

Approximately \$26 million of the request is for technical and operational testing and systems effectiveness assessments. This includes construction and operation of the Radiological and Nuclear Countermeasures Test and Evaluation Complex (Rad/NucCTEC), the capacity for additional operational test and evaluation, exercises, and demonstrations, and the formation of a red teaming and net assessments program.

Nearly \$23 million in funding is to be directed for technical support to operations in the areas of expert analysis and support for alarm resolution; collection and coordination of intelligence and detection information for technical analysis, threat assessment, decision support, and archiving; and development of technical standards, draft protocols, procedures, and concepts of operation.

Finally, the \$125 million included as part of the CBP request and the \$7 million requested by the U.S. Coast Guard will be devoted to acquisition of equipment to be deployed by the respective agencies, consistent with the overall strategy developed by the DNDO.

DNDO Organization

To meet this expanded mission and address the key challenges I have outlined, the DNDO will consolidate functions within DHS and establish strong linkages across the interagency. Multiple agencies share the resources and expertise necessary for the success of the office, and, while DNDO will be located within DHS, it will be jointly staffed with detailees from several Departments.

Relationship with DHS and Interagency Partners

The vision for DNDO is to set the global strategy and architecture for nuclear detection and reporting and to be fully aware of the efforts of the U.S. Government across the spectrum of nuclear defense. However, DNDO will not execute all of the programs in this area. For example, DNDO will lead the development of the overall technology roadmap for nuclear detection technologies but will not execute Department of Energy or Department of Defense research, development, and testing and evaluation programs. Likewise, it will not be responsible for implementing DOE (e.g. MegaPorts), DOS, or DOD portions of the global nuclear detection architecture but will be instrumental in setting the strategy for that implementation, for conducting test and evaluation as available of systems that may be deployed through those initiatives, and, to the extent possible, assess the effectiveness of the deployed architecture through red teaming and other means. DNDO will develop response protocols and facilitate the alarm to response timeline but will not actually respond to alarms. DNDO will not conduct field operations or award or administer Federal grants to State and local governments or emergency responders. The Office will not take over any of the functions that the Homeland Security Operations Center (HSOC) currently performs. However, DNDO will remain informed of those efforts as well as other efforts to counter the threat of nuclear terrorism in order to more effectively carry out its responsibilities.

Conclusion

The effort to counter the threat of a nuclear attack against the Nation is one of the Department's most critical missions. The establishment of the DNDO will greatly increase our ability to address this mission through a consolidation of National efforts, establishment of the global architecture and deployment strategy, and by providing assurance of appropriate alarm resolution and response capabilities. I am proud to have shared with you today how the Department and its interagency partners will realign themselves to counter the threat posed by nuclear devices and materials.

I look forward to working with you on this subcommittee in a continuing effort to confront the threat posed by this threat to the Nation.

This concludes my prepared statement. With the committee's permission, I request my formal statement be submitted for the record. Mr. Chairman, Congressman Langevin, and Members of the Subcommittee, I thank you for your attention and will be happy to answer any questions you may have.

Chairman LINDER. Thank you very much.

Yesterday in our hearing we were told pretty much across the board that the most important thing we can do is lock down known supply, particularly starting in Russia, and the further away from here the better.

Who is working on that now and how will you change that?

Mr. OXFORD. Again, as part of the layered defense strategy, the responsibility for fissile material security and in some cases destruction, falls within the Cooperative Threat Reduction Program and others, handled mostly through the joint ventures of the Departments of Energy, Defense and State. As joint partners within this office, that is a very important layer of our defense that we will be fully cognizant of and be fully supportive of their endeavors. However, I am doubtful about our ability to have similar protocols in other countries beyond Russia and the former Soviet states where, again, control of fissile material in places such as Pakistan and North Korea may pose different challenges.

Chairman LINDER. The new level of technology, past the 10-year-old technology, does that get us further, a longer reach in terms of detecting things? What kinds of changes do you expect?

Mr. OXFORD. First of all, as I mentioned, the aggressive program we have under way will begin deployment of next generation technology in fiscal year 2006. This capability being brought to bear gives us the abilities to discriminate nuclear-related materials and to distinguish from the false alarms and the naturally occurring radioactivity materials that we currently detect. Our current systems have high sensitivity rates, but they sense anything that has a radioactive response, so there are a lot of nuisance alarms.

The new systems that can do spectroscopic identification will allow us to dismiss the nuisance alarms, while also identifying the alarming material we care about. It will give us significant improvement in capability primarily against the plutonium threat. It will give us marginal increase against the highly enriched uranium threat. It will give us only slight increases in performance over heavily shielded material, but again we have active programs under way that are several years down the road to address that.

Chairman LINDER. Does the new technology allow us to be further away from the source of the radioactivity and still detect it that we currently can with our current technology?

Mr. OXFORD. Actually the deployment strategies we have at least at our points of entry within the country, land borders and seaports, would allow retrofits into the existing deployment locations. It is a cost-saving measure. Where we have current deployment at either cargo container or land crossings, we would do a retrofit into those actual locations.

We are essentially working within that same infrastructure. The true answer is we don't get a lot of increased range, but we get a lot of increased discrimination capability.

Chairman LINDER. Randy Larsen was here yesterday and suggested that a Gulfstream jet that could fly at 500 feet could come over virtually any one of our borders with a cargo full of radioactivity. Will we ever be able to see anything to detect something like that?

Mr. OXFORD. First of all, in this forum I don't want to talk a lot about vulnerabilities. But I will tell you that one of our charters within DNDO is to do the balanced trades across our vulnerability space to do risk-based planning to look at where we are most vulnerable.

Right now we are focused on land border crossings, and major seaports, those are obvious smuggling routes. So it is vital to have

coverage there. But there is also the air and the maritime corridor to worry about. We have to look at that from a risk-based perspective and come up with concepts for working that across the inter-agency partnership.

Chairman LINDER. You answered most of our questions we had at a private meeting. I thank you for that.

I will yield now to my ranking member, Mr. Langevin.

Mr. LANGEVIN. Thank you, Mr. Chairman.

Mr. Oxford, one of our witnesses from yesterday, Colonel Randy Larsen, stated that the government does not have a nuclear terrorism strategy, and particularly it lacks a domestic nuclear strategy. I am concerned that the government is focusing on the solution before we know the problem that we are trying to solve. If we learned one thing from 9/11 and other Al-Qa'ida attacks it is that the terrorists attack very quickly. Therefore it is important for us to have a forward looking strategy to ensure that we can enhance our posture against the terrorists.

My question to you is what is the DNDO's role in the development of a nuclear terrorist strategy, and does the DNDO plan to develop a domestic strategy? If so, when do you expect it to be completed?

Mr. OXFORD. I thank you for the question. One of our key challenges and one of the things I have put in our near-term milestones is the development of the global architecture and defensive strategy. It is not just domestic. It is global in nature by agreement with our interagency partners. The partnership that is brought to bear will look at this from a global basis, to include the overseas requirements that we think need to be bolstered in some cases.

For example, air cargo screening overseas is in some cases something that we think may be very critical as part of our global detection architecture deployment. Domestically, then, we would be responsible for implementing that architecture. I have set a milestone of March 2006 to have a baseline architecture in place to which we can all be responsive. I don't expect that to be static. I expect it to be dynamic in nature, and that we continue to red team that to make sure we don't find gaps in the architecture as it evolves.

Mr. LANGEVIN. As you know, the legislation that we recently passed to implement many of the 9/11 Commission's recommendations included a provision establishing a National Counterproliferation Center, presumably under the direction of the DNI. How does the DNDO plan to interact with this new Counterproliferation Center, and what will be the respective roles and responsibilities of each? Can we ensure effective and consistent coordination while simultaneously avoiding redundancy and overlapping layers of bureaucracies?

Mr. OXFORD. I think the new organizations that are coming out of the intelligence reform will be major contributors and partners with us. We have an active program already, for example, responding to the press reports this morning. We have a Nuclear Assessment Program that now falls under DNDO that is an active component of doing day-to-day intelligence analysis and assessments of the day-to-day raw intelligence reporting and doing assessments similar to what you are talking about.

They have an active engagement with the existing Intelligence Community and will now expand that to the NCTC and the Counterproliferation Center as it gets up and running. We would expect this to be a very collaborative relationship.

We bring in specialists to look at behavioral aspects of the nuclear threat, the technical aspects of the nuclear threat and the operational likelihood of some of those things. So we are looking hard now at the Nuclear Assessment Program as it currently exists to find out how it may be expanded to include collaboration with the entities you are referring to.

Mr. LANGEVIN. I still have additional time. So I will ask, Dr. Fred Iklé from CSIS in yesterday's hearing believes that the most important component of the DNDO is the long-term research and development of the next generation of detection sensors. In your testimony, you state that this office will conduct transformation research, but your budget calls for a total of \$162 million research and development.

Now I am a member of the Armed Services Committee, and I can tell you that the DOD budget requests for the upcoming fiscal year for just operational research is \$1.1 billion. I know the DHS plans to leverage DOD resources and research expertise in the DNDO. But how do you expect the DNDO to be the lead Federal office for development of a domestic nuclear detection system with a \$162 million research and development budget? How far will \$162 million allow DHS to get in the development of the next generation of equipment?

Mr. OXFORD. Let me respond to that in two ways. First of all, the \$162 million is divided between spiral development, which would give us near-term solutions, the 0 to 5-year solution, and the transformation R&D.

As I have already indicated, we will start deploying new systems as early as next year that give us the increases that the chairman mentioned or asked about earlier. As part of the \$162 million, there is about \$82 million that is the first year start-up of this transformational research and development program. Contrary to comments that were made in the hearing yesterday, it is not managed through an interagency coordination council. It is a separate research and development program that we have fenced within DNDO to give us this long-term edge.

We are going to review, based upon the needs of that program, what our 2007 requests should be. Again, this is a start-up organization. We recognize that we need to get the program started next year and then reflect on what the needs of the outyears should be.

Mr. LANGEVIN. Thank you.

Thank you, Mr. Chairman.

Chairman LINDER. Would the gentleman from Connecticut wish to be recognized?

Mr. SIMMONS. Thank you, Mr. Chairman, and welcome, Mr. Oxford. From reading your resume, I understand that in the early 1990s you were at DNA, the Defense Nuclear Agency, and then the Defense Special Weapons Agency and Director for Counterproliferation, again, in the mid-1990s.

Many years ago I was involved in nuclear counterproliferation activities. It seems to me that the model that we had in those days

was a model where certain sovereign states had nuclear technologies, certain states, what we called the rogue states, were able to surreptitiously obtain some of those technologies and materials and were able to develop or try to develop weapons capabilities, in some cases with superpower assistance, usually clandestine or not disclosed.

So the model implied pressuring certain sovereign states to cease and desist the activity or encouraging superpowers who had those businesses or organizations within their borders to cease and desist on the assistance. It occurs to me today that we have got a new model or at least an important new variation in what went before, which includes all of the above, but it also includes the theft or purchase of nuclear weapons and technologies by organizations that are not sovereign states, and therefore not subject to the same tools of pressure or manipulation, are not afraid to commit suicide, have no homeland that is threatened by their activities. My basic question is, are you confident that the U.S. Government has organized for this new model? That is point one.

Point two, has the U.S. Intelligence Community adjusted itself to the new model?

Then my third question is, in the field of information sharing how are we doing?

Mr. OXFORD. Let me start with point one in terms of whether we have adjusted to the new paradigm. I, too, worry about the way we do intelligence analysis and that we have had a community for many, many years that equated the nuclear threat to a missile program.

I can't tell you right now that I think the Intelligence Community has made that shift. I think we have to insist that the convergence of the counterterrorism approach with the traditional weapons analysis approach has to be done. I think DNDO brings us to the table, and gives us the opportunity to be a catalyst to require that, because we have got to look at this from both a perspective weapons program in a nation state as well as the potential that they may choose alternate delivery means besides a ballistic missile.

It is not only the organizational issue, but it is also the addition of an organization like DNDO to serve as a catalyst within the community to make sure we are getting the right assessments and that we get the right components of the Intelligence Community working together across those lines.

The Counterproliferation Center is a step in that direction. If we can get the NCTC and the Counterproliferation Center working together, especially responding to our needs in the nuclear field, because we are a consumer of intelligence, therefore we would also be a catalyst for the right assessments. I think it allows your first two points to start to come together.

On the information sharing, we have a major challenge to be able to take highly classified information all the way down to the unclassified level, because one of our major challenges that I have yet to address today is the fact that, as part of our architecture we may see a need to have detection capabilities domestically at the State and local levels. We want to do that in an informed way. We

want to be able to share information with them. Whether you call it threat information or not will remain a matter for discussion.

We have got to be able to give them insights in terms of how they would be reacting to this threat and, likewise, the flow has got to come back in the other direction; the response protocols that we work with State and local entities. So we will have to work across all of these elements to make sure that this information is flowing adequately.

As I mentioned, the Nuclear Assessment Program that already exists is a very strong component of the current nuclear assessment process within the interagency architecture. The same office that I am referring to has as routine customers the FBI, the State Department, the Energy Department, et cetera. They call upon this entity to do the assessment of those kinds of nuclear threats. We have got to make that a central key, as I have already mentioned, with the Counterproliferation Center and others.

Mr. SIMMONS. Thank you, Mr. Chairman. I have a follow-up question, but I will wait for the next round.

Chairman LINDER. Does the gentleman from Mississippi wish to inquire?

Mr. THOMPSON. Thank you, Mr. Chairman. Mr. Oxford, on yesterday we heard testimony from the private sector indicating their willingness to help with developing new technologies, especially around the area of detection. I would like to get from you whether or not you feel the Department is providing enough encouragement to the private sector for the development of those technologies, and to what extent our own labs are either hindering that ability or encouraging that ability to take place.

Mr. OXFORD. First of all, I am very encouraged by the interaction right now between our Federal laboratory system and private industry. As the chairman mentioned, I am also the Acting Director for HSARPA within DHS, Science and Technology. We have been very aggressive in this manner. We have numerous private industries involved in radiation detection development right now.

For example, the next generation technology I mentioned earlier, we currently have 10 separate private vendors that are the result of an intense competition where we had over 50 different contractors submit proposals for developing these next generation systems. We will take them to the test evaluation center that I mention in my statement in July where they will undergo extreme testing.

Part of this collaboration has been the national laboratories which have developed some of the components, as well as some of the software algorithms. There has been a mutual relationship that has evolved through the work that we have done within DHS to bring more innovation together within our contracting practices. We bring private industry and the national laboratory structure closer together than you sometimes see in the other departments. I am encouraged by that relationship, and I don't see the two competing with each other.

Mr. THOMPSON. On another front, it does not appear that officials of the CIA will be detailed to this new office. Have you made some assessment as to whether or not their presence is needed or whether or not it poses a problem?

Mr. OXFORD. Right now we are still doing that assessment. The initial assessment is that with programs like the Nuclear Assessment Program, the intelligence community is already part of DNDO and their direct connectivity into this community. We probably don't need to have a fully embedded CIA staff member as long as the connectivities are as strong as they are right now. We continue to have discussions, for example, with the NCTC to explore whether mutual exchanges of liaisons make sense. We will continue to explore that. The head of our office of operational support has been directed by me to go and visit with each of these intelligence organizations and come back with options for how this relationship ought to grow.

Mr. THOMPSON. I guess that is, my real concern is if doing an informal structure will work or does it have to work to be something more formalized from our standpoint?

Mr. OXFORD. I think from our perspective we can work the relationship either through MOAs or MOUs to make this happen. I think a more close coupling in terms of having direct involvement in the Intelligence Community could be an impediment to DNDO in the long run, because if we become part of the IC it puts certain restrictions on our ability to operate overseas and with some private sector entity. So I would caution against a direct coupling with the Intelligence Community, but we have to have the right collaboration.

Chairman LINDER. I thank the gentleman. The gentleman from Connecticut wish to inquire?

Mr. SHAYS. Thank you, Mr. Oxford. Thank you for being here. Thank you for your work. Thank you for your service to our country.

I am intrigued by the radiation detection equipment worn by border guards. When we were in Los Alamos about a year and a half ago. They showed us some of the equipment that was being used and they put it next to radioactive material and it didn't work. They said, you know, we never were consulted, you know, and so that got my attention. Could someone bring enough radiological materials across a land border to make a dirty bomb?

Mr. OXFORD. Let me again do the comparison I did a few minutes ago. If it were a border crossing where we had the existing equipment you are talking about and if it were unshielded radioactive material sufficient for a dirty bomb, we would detect it. That is one of the things we can detect material that is highly emitting.

Mr. SHAYS. The issue though is unshielded?

Mr. OXFORD. Correct.

Mr. SHAYS. I was on the floor just to deliver a statement and hear your statement but not hear the response to that question. Let me just ask, a suitcase in a trunk of a car with a lead box containing cesium or cobalt for medical equipment, would that be detected?

Mr. OXFORD. Probably not with existing systems. As I mentioned earlier, the systems that we are going to deploy will give us better discrimination capability. We hope to start deploying those next year.

Mr. SHAYS. Who develops detection capabilities now? Is it DOD, DOE or DHS? Which one is it?

Mr. OXFORD. Right now for the border crossings it is all DHS. It has been a legacy mission, legacy within the last several years of Customs. That responsibility now conveys to DNDO.

There have been special programs within DOE and DOD for some of their research responsibilities where they have developed equipment. DOE has also, through their Mega Ports Program, negotiated some acquisition of equipment for overseas deployment. However, for domestic deployment it is primarily DHS through Customs that has developed and manufactured the equipment.

Mr. SHAYS. I won't tell you the government building I went into, but I went into a government building with someone who a week and a half before had had a stress test and alarms went off. Someone was asked, did anyone have a stress test?

Does that represent fairly sensitive equipment that could determine that? I mean, this was someone walking into a building.

Mr. OXFORD. Again, the challenge in most cases is not the sensitivity. It is the discrimination the ability to discriminate between false alarms and nuisance alarms versus being able to identify the threat materials that we are most interested in. In that case it was a sensitivity issue that it was able to detect that, but you would have detected anything whether it is a legitimate threat or not.

Mr. SHAYS. So you were saying I shouldn't be impressed. I was kind of impressed that a radioactive material that was put in the body of someone a week and a half before that should kind of, you know, filter out over time, that in this government building it was detected. You are saying don't be impressed with that?

Mr. OXFORD. Not really. That is something that, in fact, is a routine issue that we worry about that causes a lot of the false alarms I mentioned because it is a legitimate radiation source that we have to deal with. Some of the deployments of radiation pagers cause a problem in that regard, because some of those can pick those up as well. Then we have to figure out how to assess the individual who just triggered the alarm. It is not a sensitivity issue in that case, it is discrimination.

Mr. SHAYS. With discrimination, are we able to determine different types of radioactive material?

Mr. OXFORD. Through the spectroscopic identification we are able to identify the isotopes that we want to worry about and those that we can to dismiss.

Mr. SHAYS. Thank you. Thank you for your responses.

Thank you, Mr. Chairman.

Chairman LINDER. Does the gentleman from Washington wish to inquire?

Mr. DICKS. Thank you, Mr. Chairman. I want to welcome our witness. Let me ask you this. We had a big discussion yesterday about whether this should be the National Nuclear Detection Office or the Domestic Nuclear Detection Office. Which one would you prefer?

Mr. OXFORD. If I were king for a day, anybody would want to have full authority over everything. However, there are some practical limits.

Mr. DICKS. Why did they put "Domestic" in this name?

Mr. OXFORD. I think it was primarily because of where the emphasis will be on the deployment, as opposed to the planning. So

it is a misnomer, it is confusing. I know Chairman Cox has had some discussions with our Deputy Secretary about this very subject.

The focus of the office includes centralized planning, but decentralized execution, and the "Domestic" name may be problematic over the long run unless we just get the message out. We will deploy domestically but we will plan globally.

Mr. DICKS. All right. Now in talking about setting up a global architecture—and that is part of your assignment, is that not correct?

Mr. OXFORD. Correct.

Mr. DICKS. How are you going about that?

Mr. OXFORD. Again, we have an interagency team as part of the system engineering and system architecture piece of our organization. We will do this through a national laboratory team that will be exploring components of the architecture. We have two industry-based teams that are exploring the architecture. We will take the output from those processes, bring it into the interagency team within DNDO, and actually create the global architecture we would like to see deployed.

Mr. DICKS. In order to have a global architecture, if you are going to go beyond the United States, unless it is in space, you are going to have to get other countries to cooperate, is that not true?

Mr. OXFORD. That is true. That is why, again, bringing together the people that are already working overseas, DOE and the State Department, as part of this collaboration to find out where it is practical to strike some of these deals are so important, first of all, we have to decide where we want the capability overseas and then we need to figure out what agreements need to be in place. That is why some people are confused why State Department should be part of this, but we think part of their overseas presence and experience has got to be in the office.

Mr. DICKS. I can see in container security, the CSI, the Container Security Initiative, you have to be overseas. And if you really are going to do this job you want to inspect these containers before they get to the United States. Isn't that true?

Mr. OXFORD. Absolutely. Not only that, but you want to know how well the detection works overseas. Part of our concept is to go overseas and assess the health of that architecture, how well are those countries operating the systems and how well they work, so that we have a full appreciation for how well the material has been screened before it heads toward our borders. Just deploying overseas isn't sufficient without knowing how well it works.

Mr. DICKS. Okay. I want to go back to something you said earlier just to make sure I understand it. The National Counterproliferation Center is in the Director of National Intelligence. There was concern yesterday from our outside witnesses that, you know, this is maybe duplicative. Are you going to sort out what they are going to do and what you are going to do?

Mr. OXFORD. Absolutely.

Mr. DICKS. Again, I assume you will be doing most of the intelligence gathering because you are in the intelligence office.

Mr. OXFORD. We consider ourselves a consumer of that intelligence. We get the raw intelligence and we do some of the special

nuclear assessments within the Nuclear Assessment Program. They will be a coupled activity that will feed off of each other.

Mr. DICKS. Let me ask you this. There was a National Counterproliferation Center in CIA. Is this then spun off to the Director of National Intelligence, or does the CIA still have a National Counterproliferation Center?

Mr. OXFORD. The counterproliferation activity that I was aware of within CIA was the Counterterrorism Center.

Mr. DICKS. Counterterrorism Center. I misspoke.

Mr. OXFORD. I think they have now become coupled. Again, I don't have all of those details.

Mr. DICKS. But, again, just say it again, what are they going to do? You are going to get raw intelligence, they are going to get raw intelligence? What is the difference? What are they going to do that you are not doing, and what are you going to do that they are not doing?

Mr. OXFORD. We are going to sit down with them now that they are merging and figure out how these two programs get coupled.

Mr. DICKS. So you think this is something that needs to be sorted out?

Mr. OXFORD. Absolutely.

Mr. DICKS. And that if somebody in the administration has to work out and Congress may want to take a look at it once you decide what you have done here?

Mr. OXFORD. The recommendation we made to the Secretary and to others is we will not break anything that is in existence works. We need to figure out what these things are.

Mr. DICKS. This hasn't been created?

Mr. OXFORD. Right. We need to start it, correct.

Mr. DICKS. I have been around here a long time, worked on defense appropriations for 27 years. We have wasted a ton of money on R&D and programs. I hope you are getting some advice from Defense and DOE about how you do these—and DARPA, about how you do these research programs. Or are we just starting this up, a new babe?

Mr. OXFORD. No, in fact, Congressman, that is the value of having DOD and DOE specialists inside the office, because they are staffing the office with people that understand system engineering, tests and evaluation. These are some of the strength, of those departments that we are bringing into the office to make sure we do these things accordingly.

Mr. DICKS. Thank you, Mr. Chairman.

Chairman LINDER. Thank you. Would the gentleman from California seek to inquire?

Mr. COX. Thank you, Mr. Chairman.

Welcome, Mr. Oxford. I want to add to what I know my colleagues have already said. Congratulations to the Department of Homeland Security for leading this effort to give us a focus on the prevention of nuclear terrorism.

Our interest is in making sure that the Department of Homeland Security really undertakes this mission and that it does so in an integrated rather than piecemeal fashion.

Let me begin with what may be the capillary rather than the jugular, but it has gotten a whole lot of discussion since our recent

hearing with outside witnesses, and that is the question of whether we are domestic, national or global or what are we.

I do think that the name of a program or an organization is important to the extent that it conveys the sense of mission. In the 19th century we had a Department of War, and there was no question what its mission was. Ultimately, we refined that mission so that in addition to making war we were going to make war by air, land and sea. But the Department of Defense, whatever else you want to say about it, has a clear understanding of its essential mission.

I am very, very concerned in the early days of the Department of Homeland Security that we also establish a clear sense of mission. The purpose that Congress had in mind in creating this new department, which is already the third largest in our Executive Branch, was to end the Balkanization and the dispersal of responsibility.

Now that we know that the mission of the Department of Homeland Security is first and foremost preventing terrorism, and we also know that nuclear terrorism is either the or one of the two major consequent terrorist events that could occur, given the 21st century state of technology as we know it, it is vitally important that we have a focal point for this mission. What is proposed as the Domestic Nuclear Detection Office is, in fact, according to your presentation today, going to have a global architecture.

So I would think it misleading if we were to call it the Domestic Nuclear Detection Organization, and equally I would think it misleading if we were to call it the National NDO. I mean, maybe I am missing something, but I was an English major in college and spent a little time on linguistics and semantics and so on.

What is the difference between national and domestic? I mean, I think I understand the Nation to be the United States of America and I think I refer to domestic to be United States of America. So that sounds nearly synonymous to me.

We don't want to confuse people, and if we want a sense of mission that we are going to go overseas and find these terrorists, and we are going to track the nuclear materials first and foremost at their source, then we shouldn't have an implicit mission that is focused merely on the deployment of technology within our own borders.

So that is some of what we wanted to discuss with you today.

In addition to having a global focus, it is my hope that this mission within the Department of Homeland Security will have a significant intelligence component, because after all, the purpose of nuclear detection is the prevention of nuclear terrorism, and prevention equates directly with intelligence, and yet it seems that the current DNDO proposal completely excludes intelligence from any part of its organizational structure.

I would hope that that is still under discussion and we are still thinking about that and it won't be a mere integration of agencies, because if it is then what we will find is that we have created in the Department of Homeland Security just one more seat at the table, one more element to be coordinated and the job will be even more difficult than it was before we had this department.

So I invite your comment on these things. I hope that you can give us some comfort that we will in fact have a global focus, that the deployment of technology and sensors in the United States will not be the essence of what we are doing here, but merely a part that we will be the focal point, rather than merely a participant in a governmentwide effort, and that the responsibility for this mission will, in fact, reside in DHS.

I invite your comments.

Mr. OXFORD. First of all, Mr. Chairman, I don't know how I could come up with a better name myself as well. We spent a lot of time discussing it. There was actually another name early on in the cycle—it was a the National Domestic Nuclear Detection Office. We have made some progress to get it down.

Mr. COX. Just a humble submission, we are all putting our entries in the hat here. I just dropped that first adjective, you know; I don't like "Global" or "World" either. That bothers me for different reasons. I mean, this ought to be a U.S. effort, but I just would get rid of the adjective.

We are focused on preventing nuclear terrorism. Nuclear Terrorism Prevention Office or something would be fine with me. But clearly what we need is an understanding of whether we are looking inward in a defensive crouch or whether we are reaching out and also making our job easier by getting the source of that—.

Mr. OXFORD. We really are looking out as part of the layered defense strategy, to make sure we take into account all of those overseas activities, while also accounting for the fact that not every one of those layers can be 100 percent successful. We seek to improve the kinds of equipment that we deploy overseas, with regards to the actual effectiveness of those systems as we deploy them and we also continue to assess those systems as we test and deploy them overseas.

So, again, working with DOE and others overseas as part of the global architecture should give us a lot of hope that we are going to improve the performance of systems overseas and, through information sharing and intelligence process make sure that we understand how well overseas material is screened before it heads towards the U.S. Clearly, there is a goal to make the domestic system work well as well.

Mr. COX. With the chairman's indulgence, I would just ask one additional question. The NCP, which we have got what remains of 18 months to establish, as Mr. Dicks was pointing out, has very relevant objectives. Where in the government NCP is going to end up is still the President's decision.

Is it under consideration that NCP be established within DHS with DNDO or whatever we are going to call it as an operational element?

Mr. OXFORD. I have not had any specific discussions on that point. I know it has been raised over the last day or so. I haven't talked to the Secretary directly on that subject. Again, as I mentioned before, I think a very close working environment with them is important. But to become part of the Intelligence Community for DNDO would hamper some of its developmental and international abilities.

I would like a close relationship without being considered part of the IC because of some of those inherent limitations.

Chairman LINDER. Does the gentlewoman from Virgin Islands wish to inquire? You were here. I am sorry, the gentlewoman from California.

Ms. HARMAN. Thank you, Mr. Chairman. My appreciation to you and the ranking member for holding a very interesting set of hearings, and to the full committee for realizing that the nuclear threat is a huge priority, not just for this committee, but for our country.

I want to state a couple of things that I haven't been able to for the record and this committee, because I have not been here at the precise time to get called on, but I am today.

First of all, I have great confidence in the new Secretary. I think Michael Chertoff is going to be able to get his hands around an agency that has had a very slow start. Part of that is our fault because the construct for it is so ambitious.

But nonetheless, I think the way he is going to focus on intelligence policy and operations is the right focus. I am very pleased with the start, and that includes many of the folks who are in this agency and trying to do the right thing. So congratulations to you, too, Mr. Oxford.

The second thing I wanted to say is that as one who has focused a lot on reorganizing in order to confront and defeat the threats that face us in the 21st century, I think organization obviously matters. I think the names of things matter and where the boxes are matter. But I think more important than the organization is mobilizing the political will to act. That is really what I want to ask Mr. Oxford.

In today's "Washington Times," there is a report, an article which leads with this, "Recurrent intelligence reports say Al-Qa'ida terrorist Abu Musab al-Zarqawi has obtained a nuclear device or is preparing a radiological explosive or dirty bomb for an attack." It then goes on to say the sourcing may be unreliable, but surely this is of concern and the possibility that al-Zarqawi could have such a device is of urgent concern.

So my question of Mr. Oxford is this. Yesterday's witnesses made absolutely clear, and I agree with them, what kind of threats we are facing. I also believe, and I think you do too, that we have a lot of capability in our government and elsewhere to confront those threats.

But if they are as serious, as I think they are and you think they are and the members of this committee thinks they are, why don't we have the political will to make this the highest priority in our country and to focus many more resources and brain cells on dealing effectively with the nuclear threat?

Mr. OXFORD. First of all, let me address the fact that we have been following the report that you are citing for approximately a year and a half. There have been a variety of reports of that nature. We have been working on this closely with the rest of the community and with the Defense Department. I sent an inquiry over to Defense today to ask them what they were doing to follow up. I haven't gotten an answer back from them yet.

Ms. HARMAN. Thank you.

Mr. OXFORD. It is something we get involved with. Through the Nuclear Assessment Program we follow a monitor, and it goes into an analytical data base so that we can do trend analysis over time.

I think the resource issue is an interesting one. When we conceived of DNDO over the last 6 months or so, and as we worked across the boundary conditions, we recognized in the first year we really need to do the architecture work. We really need to put the strategy in place, as opposed to just coming to the Congress with a very large budget and not being able to defend its intention.

Again, as we ramp up to the fiscal year 2007 budget submission, we will be putting this into perspective. I don't know what the numbers will be, but I would not expect them to be flat, in terms of our needs and our request, because the more we look at this, the more we will have an appreciation for what needs to be done.

Ms. HARMAN. Well, I surely support strategy. I think that is what we have lacked in the Homeland Security Department. But I don't think it is just a question of resources meaning money. I don't think you do either. You have said strategy matters. I think it is also a question of focus, not yours personally, but this country tunes out information about the nature of this threat. We can't tune it out. We tune it out at our peril.

So I just put on your plate and certainly on Secretary Chertoff's plate and on the plate of this committee the need to find the handle on how to get the public to focus on this in ways that they haven't and to get the urgency of the threat and our need to respond in a strategic, informed way out there, so that should something terrible happen or, better yet, should something terrible be threatened and we can find the clues to block it, we act.

Mr. OXFORD. If I could address that in a couple of ways, first of all I'd like to assure you how seriously this is being taken within the Department right now. This was the first topic that the new Secretary took on when he came into the office. The very first morning after being sworn in we had a meeting on DNDO with the Secretary.

Separately, we do have a major goal to broaden the awareness of this activity, throughout State and local governments. We are working now through our Office of Domestic Preparedness to figure out how to migrate awareness of the capabilities and the ability to respond to this in a much broader way through those channels.

We have also looked at proposing a nuclear detection interdiction exercise as the next prevention component of a TOPOFF exercise, we need to put that on the table. We need to start planning right now so that it coalesces our efforts in this area.

Ms. HARMAN. Thank you, Mr. Chairman. I just want to say how much I appreciate the thoughtful answers of this witness.

Chairman LINDER. Does the gentlewoman from Virgin Islands wish to inquire?

Mrs. CHRISTENSEN. Thank you, Mr. Chairman.

Welcome, Mr. Oxford. A little bit different kind of a question, I guess, many security experts believe that terrorists are more likely to use a dirty bomb to carry out an attack. Given the abundance of radiological material available in this country, what steps are being planned? What steps do you think the government should be taking to secure domestic radiation sources?

Mr. OXFORD. First of all, the responsibility for much of that falls with the Nuclear Regulatory Commission. We are in direct contact with them to discuss their participation within the office to include not only having staff members within DNDO, but also active sharing of the data bases that they are proposing to establish that would monitor the licensees and the actual movement of materials. If they are going to have a legitimate movement of a nuclear source, we need to be apprised ahead of time so that we can notify people that this will take place.

Again, most of that would fall under the NRC, but, we are in direct contact with them on that accord.

Mrs. CHRISTENSEN. Are all of the sources identified as far as—

Mr. OXFORD. I think we have a pretty good handle on those that we are most concerned about. They fall under multiple categories. We have pretty good controls those that project the highest threat. Again, this is done through a series of both Federal licensing program through the NRC, and in some cases the States, have taken on the licensing responsibilities for safeguarding and reporting on the status of those sources.

Mrs. CHRISTENSEN. I really meant to bring the testimony from the previous hearing that we had, and I forgot. But as I recall, not only does Customs and Border Patrol have some responsibility with regard to nuclear material and detecting it, but I think State does as well.

Now, they are not, what, two of the agencies that are a part of the national or the domestic DNDO, right?

Mr. OXFORD. DNDO.

Mrs. CHRISTENSEN. If they are not included within the DNDO, why?

Mr. OXFORD. Actually, they are. We will have 11 assigned people from the Bureau for Customs and Border Protection in the DNDO as part of the joint office. We are working across the other components of DHS as well. So we are going to have 10 people that are coming from Customs directly into the office. We also have a senior liaison from the State Department that is coming into the office to be our bridge back to the State Department and all the interests overseas. So, they both are directly working in the office.

Mrs. CHRISTENSEN. Thank you. Thank you, Mr. Chairman.

Chairman LINDER. The gentlewoman from the District of Columbia wish to inquire?

Ms. NORTON. Thank you very much. I apologize that I was stuck in another hearing and unable to hear all of this testimony. I read the testimony. I am particularly interested in this area, so much concern has been expressed, so many worst case scenarios are out there.

At the same time, we have just created the new Office of National Director, we are talking about the National Counterproliferation Center. This is really a hearing to get us to understand the structure and how it fits in. You could help me—if you could help me to understand, just judging from your testimony, what I see happening here. Everyone is afraid that things will begin bumping into one another as we try in good faith to separate what needs to be done and to somehow get it all together.

As I read your testimony, it seems to me that you are coordinating a startup technology operation, and this is why I say so. I need you to tell me if this is right or wrong. You say on page 3 that you will be—that DHS will be working holistically to combine research and development acquisition and operational support out of a single office.

Now, if you move on to page 5, you speak about how this—how your office actually seeks to create transformational R&D and, therefore, will not be driven directly by operational requirements. You say that these—that the transformational aspect of what you are doing is essentially so great it could provide new operational concepts altogether.

Then you helpfully state on page 8, what you will not do. You indicate again the focus on technology, speaking about a road map for nuclear detection technology, but will not execute. Then you go on to name these agencies, Department of Energy, Department of Defense, agencies that are already involved in this. It sounds to me as though you were part of a—and I can understand this and you are careful in trying to make clear what it is you can do, what indeed you won't do or won't attempt to do. But I don't see—I really don't see any part of you that is operational.

I can understand why it should be in DNDO and the need for DHS to coordinate all of the various agencies that must be involved that we are talking about detecting nuclear threat before we arrive on shore, but I don't understand why the word "operational" should be here at all.

I can understand at the table would be people who would have to operationalize some of what seems to me you are leading us in doing, and that is developing a true basis to detect these threats abroad. So I understand why.

I suppose my question is, why don't you say that? Why does operational get into this at all? Are you not essentially, as I said when I began, coordinating the startup of a new technology, a new approach to detecting the nuclear threat before it arrives in our country, and keeping in touch with the operational actors so that becomes integrated as becomes appropriate?

Mr. OXFORD. And I apologize if any of the words in there are misleading, but we try to be very clear to say that what we are doing is operational support. We do not actually conduct the operations, but we provide, for example, support to alarm resolution. If Customs or if an overseas location gets an alarm on their detection systems, we provide support to those operations to help them with resolving those alarms, to find out is it a threat alarm or is it a nuisance alarm.

So there is an operational support element in that regard. Operational support also extends to the sharing of information across this architecture so that we can enable people to conduct better operations. So we don't physically conduct the operations. For example, if we get a real nuclear alarm, we immediately invoke the FBI's law enforcement authorities. They conduct the search in conjunction with DOE assets, but we will be there to trigger in a much more time compressed fashion the transition from alarm to response, that response being the actual operations. But we will not

do the search ourselves. So we try to be careful by making that operational support, and I apologize if there is language

Ms. NORTON. So by operational support, you mean you provide the expertise, the technological expertise that may be necessary?

Mr. OXFORD. Or information that better informs operations in the field.

Ms. NORTON. Thank you very much for that clarification.

Chairman LINDER. Chairman Cox?

Mr. SIMMONS, would you like to inquire?

Mr. SIMMONS. Thank you, Mr. Chairman.

I remind myself that the answer to the previous question as to whether we have adjusted to the new model or the new paradigm of counterproliferation was, as I recall, we are not there yet. Is that what you said?

Mr. OXFORD. I think that is fair.

Mr. SIMMONS. We are not there yet. And I agree with that. And I think that underlies the seriousness of the situation that we face.

The ranking member of the full committee, Mr. Thompson, asked a question about the Central Intelligence Agency and other entities and whether they would be represented in the Nuclear Detection Office, and I like the chairman's title for it. Let us get rid of "domestic." That sounds like something that might be based from our homes. From the Latin "domus." I was an English major, too. So Nuclear Detection Office.

I don't understand how we can be fully effective in detecting or in being involved in developing technologies for detection or for warning these sorts of things without having the Intelligence Community and their representatives embedded within the system.

I think you said that close coupling would be an impediment. Is that correct? Close coupling with these agencies might represent an impediment because perhaps if the traditional rules and regulations that cover the FBI, the CIA, et cetera, et cetera. And I guess my response to that, Mr. Chairman, is that if coupling—if this agency, this new organization's coupling with the Intelligence Community in an area this important and this significant is an impediment, then we need to know why. It could well be that the impediment is the rules and regulations that this Congress and others have placed on the Intelligence Community over the years that have rendered them useless. Well, I shouldn't say that, but certainly rendered them ineffective to prevent 9/11 and rendered them ineffective to do the weapons of mass destruction analysis on Iraq. And so if in fact these rules and regulations and these restrictions are an impediment to the Intelligence Community to the point that they are an impediment to you, then that seems to me to be a serious issue worth pursuing.

My friend and colleague from California said maybe it is an issue of political will. I don't think the political will is lacking. I think there may be bureaucratic politics and inertia, a lack of risk taking, opposition from groups that traditionally have opposed the Intelligence Community. But all of this underlies my fundamental concerns and my second set of questions, which is, are we in the zone? Are we in the cycle? Is your organization somehow within the intelligence cycle at least when it comes to requirements? Do you feel that the requirements that you have to do your job to prevent

this country from being hit by a radiological attack from somebody like Mr. Zarqawi, are you sufficiently embedded in the cycle that you feel comfortable you can do your job?

I am not sure that you are. So I would love to hear that you are.

Mr. OXFORD. Let me suggest that maybe I was too subtle in my previous answer. When I was suggesting coupling, I was referring to some of the discussions which suggested that maybe the two organizations be combined. Becoming part of the Intelligence Community—that is, if DNDO were part of the Intelligence Community—I think may be an impediment to the broader mission. I would argue to be separate from the Intelligence Community. That is why I used the term coupled. In that term, I was talking about being fully integrated. I think the relationship has to be there. That is not the impediment I was worried about.

Mr. COX. Would the gentleman yield?

Mr. SIMMONS. Of course.

Mr. COX. I appreciate the gentleman asking the question. I also agree with Mr. Oxford that at least for this member it was too subtle, and even with your expanded explanation I don't understand why it is that if this were all done, for example, under the rubric of IA, and if counterproliferation were a specific function, and if DNDO, if that is what we are going to call it, were an element of that, it wouldn't work.

Mr. OXFORD. It may work in that case as opposed to a separate independent organization outside of DHS. The integration of this office within DHS, and the IA component will mature through the Secretary's review. We could certainly explore options in that regard, but I was just looking at this as a stand-alone organization that merged the mission of DNDO with an intelligence component. I think there would be some problematic issues in that regard. With regard to how we can do this inside the Department, I think there is a variety of alternatives. In that regard, I think it is okay.

Mr. SIMMONS. I thank the Chairman.

Chairman LINDER. Mr. Langevin.

Mr. LANGEVIN. Thank you, Mr. Chair. I think that was an important discussion we just had, and I think we need to explore that further. So I thank both Mr. Simmons and Mr. Cox for their comments and your answers, Mr. Oxford.

The question I had, I wanted to turn back to the issue of the detectors and the—in terms of budget requests. And the witnesses from yesterday's hearing had also raised concern that DNDO is domestically focused. And I know that your testimony states that DNDO will develop global detection architecture. But, again, the administration's request is \$5 million, this effort. So how much progress is DNDO going to be able to make in developing this global framework for the \$5 million budget request?

The second part, with respect to detectors, I would like to ask you about the next generation detectors, and so I want to get this point clarified, because you said that you will be able to deploy detectors early next year. But the committee has been briefed by Customs that this technology is not yet ready to be deployed because DHS has determined which spectroscopic technology is going to be used. So once the technology is chosen, these detectors must be produced, and that certainly is going to take some time. In addition,

the next generation technology really isn't ready for deployment, and DHS has not determined what technology in fact is going to be used. So, therefore, DHS in all reality is years away from deploying the next generation sensors.

Now, if this—and, by the way, it is also twice as expensive, and so they are not going to be able to actually deploy many detectors in the first place. For example, the total cost to deploy the current detectors is \$496 million, and the cost to fully deploy next generation detectors is going to be somewhere in the area of \$1.2 billion. And this is according to CBP. So how many next generation detectors are you going to actually be able to deploy with \$80 million in your request?

Mr. OXFORD. Let me give you some recent information. As I was coming over here today, our Deputy Secretary was having the briefing on the acquisition strategy associated with these next generation systems. We have committed to the Secretary to have these systems start low rate production as early as May of 2006. Now, Customs' concern is that these have not yet gone through the full test series. That test series begins in July.

We have 10 separate contractors developing systems using this new technology. They will go through a very rigorous testing program, which to be honest has never been done before. Legacy systems have never been tested to the extremes that we are going to test these systems in July. Out of those test, we will do a down select of those 10 vendors to three, with one or two going into low rate production in 2006.

The current limitation to these systems is the manufacturer of the sodium iodide crystals. This new capability is based on the availability of these crystals that give us the isotopic discrimination. We are capitalizing the manufacturing at one location and potentially coming up with a second source. Beginning in 2007, we would actually be able to go into a more robust deployment of the next generation system.

The acquisition strategy we put in front of the Deputy today is still a hybrid acquisition approach in fiscal year 2006, and the total request in 2006 was \$125 million. The \$80 million you referred to was actually the 2005 appropriation. There is \$125 million in the 2006 request. Right now our position is about \$71 million of that will be dedicated to next generation systems.

Mr. LANGEVIN. Thank you, Mr. Chairman. I yield back.

Chairman LINDER. Chairman Cox.

Mr. COX. Thank you very much. Mr. Oxford, I wonder if I could dig into some of the questions that you are on the threshold of having to decide, not with respect to the organization within DHS, but actually what to do by way of deploying detection devices technology. Our witnesses from outside alerted us to two problems and I am sure you are thoroughly familiar with and have given great thought to.

One is that we have roughly 380 ports of entry in the country, and even if we had ideal technology positioned at each of those ports a terrorist would presumably be clever enough to get a 4X4 and drive across a logging road in Minnesota to bring the needed radiological material in the country and wouldn't be foolish enough to drive through a major port of entry.

Second, the existing technology, including everything on the verge of deployment, is simply inadequate to the task so that it is very easy to defeat if one takes measures that we might anticipate that terrorists would take if they were smart terrorists to shield their radiological material from detection. That raises at least one question you have got to decide.

I appreciate your comment just on those problems and the nature of them, but the question I know you are wrestling with, among others, is, with respect to technology: Buy now so we can deploy immediately or invest now so that we can deploy later. Given the weaknesses in the defense that we will erect even if we were to deploy at all today, does it make more sense for us to invest the greater portion of our budget in better technology so that we can have a better rather than a poorest defense?

Mr. OXFORD. You are exactly right, Mr. Chairman. We struggle with these trades every day. The way we like to look at this is trying to balance coverage versus capability, and coverage does provide us some deterrent value. The whole layered defense strategy has got to complicate the terrorist's planning to the point where it really makes it hard for them to decide what to do, giving us additional operational opportunities to direct their activities. It is a tough trade across the land space, the air space, and the maritime corridors as well.

I believe that the spectrum of RDD versus plutonium versus HUE argues that we need to have better systems than what we call the middle of the road, the spectroscopic systems that give us a lot of increased capability in that regard.

Directly on the heels of the system, I would like to say that within 2 years I will be in here telling you that we have better systems to detect the shielded materials. We have several activities under way that will get us to the detection of shielded materials, and we would like to be going out and narrowing the field to develop those systems and produce them in about 2 years.

We are not resting on just today. We have an active program to look at dual energy sources that give us the ability to interrogate high-Z materials, high density materials so we can know that there is shielding material in cargo. The next step then would be able to actually discriminate what that cargo is.

The trade across the fixed income, as you have already suggested, is a very tough one, but we think we have got to put something in place as we build towards a more robust system.

Mr. COX. Finally, I hope that you will take to heart the concerns that have been expressed from a variety of perspectives about the importance of integrating intelligence with what we are doing, because keeping track of what terrorists are actually focused on, given that there are significantly fewer of them than there are people on earth and things to protect in our own country, is significantly better payback than investing our money in detection around the country on the theory that they might come any time, anywhere, any place.

I would ask you whether or not there is a system in place in the Department of Homeland Security to help us make the trade-off from a money standpoint between intelligence and between overseas interdiction and covert efforts to identify terrorist capabilities

and intentions on the one hand and investing in the deployment of technology on the other hand.

I ask that because it seems to me there may be a fallacy built into the architecture of DNDO as conceived, and that is an a priori assumption that we are just going to deploy this technology, that that is the mission, whereas the real mission should be preventing nuclear terrorism. And if that were the mission, we might be thinking every day about is this dollar better spent putting a radiation portal monitor in place or better spent locating what terrorists are doing with radiological material outside our borders or attempting to bring it in.

Mr. OXFORD. And I think that is exactly what the concentrated effort within DNDO is going to bring to the table for the first time, the collective insights of the various departments that have been working these problems separately to sit down and figure out what the elements of this strategy need to be, is the deployment of a detection architecture domestically the necessary next step or is it just part of a broader strategy? People often look at the development of a strategy as a delaying tactic, but in this case I think it has got to be the way we explain, not only how we execute this problem but how we tie together the various elements of the operational community and the intelligence community to solve the problem. And until we have been able to espouse that theory and that strategy, we could have these kind of discussions for the next 5 years, and the panel that met yesterday has told you what that has gotten us so far. We have essentially talked about this for 8 years and have done very little.

Mr. COX. Well, Mr. Chairman, I feel very comfortable and confident knowing that Mr. Oxford with his experience in DOD and at NSC and the Air Force is in charge of tackling these problems. Thank you very much for your assistance today.

Chairman LINDER. Thank you, Mr. Oxford. You have been very helpful, and we are grateful. Thank you.

Mr. OXFORD. Thank you, Mr. Chairman.

[Whereupon, at 4:30 p.m., the subcommittee was adjourned.]

