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HEARING OF THE EMERGING THREATS AND CAPABILITIES SUBCOMMITTEE OF THE SENATE

ARMED SERVICES COMMITTEE

U.S. NONPROLIFERATION STRATEGY AND THE ROLES AND MISSIONS OF THE DEFENSE AND

ENERGY DEPARTMENTS IN NONPROLIFERATION IN REVIEW OF THE FY 2007 DEFENSE BUDGET

PARTICIPANTS: PETER FLORY, ASSISTANT SECRETARY OF DEFENSE FOR INTERNATIONAL

SECURITY POLICY; MARINE CORPS GEN. JAMES CARTWRIGHT, COMMANDER, U.S. STRATEGIC COMMAND; JERRY PAUL, PRINCIPAL DEPUTY ADMINISTRATOR, NATIONAL NUCLEAR SECURITY ADMINISTRATION, ENERGY DEPARTMENT

CHAIRED BY: SEN. JOHN CORNYN (R-TX)

LOCATION: 222 RUSSELL SENATE OFFICE BUILDING

SEN. CORNYN: The Subcommittee on Emerging Threats and Capabilities will come to order. Senator Reed, our ranking member, will be arriving momentarily. And we're pleased to have Senator Collins here with us, as well as each of our witnesses.

The committee meets today to receive testimony on U.S. nonproliferation strategy and the roles and missions of the Department of Defense and the Department of Energy in nonproliferation.

We welcome each of our witnesses: the honorable Peter C.W. Flory, assistant secretary of Defense for International Security Policy; General James E. Cartwright, United States Marine Corps, commander, U.S. Strategic Command; and the honorable Jerry Paul, principal deputy administrator for Defense Nuclear Nonproliferation, National Nuclear Security Agency of the United States Department of Energy.

The honorable Robert G. Joseph, undersecretary of State for Arms Control and International Security, could not be with us today due to a conflict with his testimony in the Foreign Relations Committee, but he has submitted a very helpful statement for the record.

The programs and missions for which each of you are responsible are critically important to the national security of the United States. In a major address on nonproliferation at the National Defense University on February 11th, 2004, President Bush stated, "The greatest threat before humanity today is the possibility of a secret and sudden attack with chemical or biological or radiological or nuclear weapons." He was referring, of course, to the threat of weapons of mass destruction getting into the hands of terrorists.

Appearing before the Senate Armed Services Committee just one month ago, Ambassador John Negroponte, the director of national intelligence, testified that terrorism is the preeminent threat to the United States, and the key terrorist organizations remain interested in acquiring chemical, biological, radiological and nuclear materials or weapons to attack the United States, U.S. troops and United States interests worldwide.

Each of you have significant responsibilities for programs and missions that are aimed at reducing the proliferation threat and managing the consequences, should such weapons ever get into the wrong hands or even be used.

Assistant Secretary Flory, we look forward to your testimony on the administration's nonproliferation policy and strategy, the cooperative threat reduction program, the Department of Defense's role in the Proliferation Security Initiative, and your assessment of efforts underway at the Department of Defense to consolidate and integrate myriad department activities into a unified combating WMD mission.

With respect to the cooperative threat reduction program, the subcommittee is interested in your testimony on the progress of the Chemical Weapons Destruction Facility at -- I'm going to have a hard time pronouncing that here -- Shchuch'ye -- the prospects for using CTR funds to eliminate chemical weapons in Libya, and your vision of the future of the CTR program.

General Cartwright, we look forward to your testimony on your new responsibility for integrating the department's efforts to combat WMD. We understand this is a work in progress. We look forward to enhancing our understanding of what this mission encompasses and how you plan to carry out your responsibilities in this area and what role the Defense Threat Reduction Agency will play. We'll be interested to hear what milestones you have set to measure progress in integrating the Department of Defense's efforts to combat WMD.

Deputy Administrator Paul, we look forward to your testimony on the impressive and growing array of the Department of Energy's nonproliferation programs.

The Second Line of Defense, Megaports, the Global Threat Reduction Initiative and elimination of weapons-grade plutonium production programs, to name just a few, are making important contributions to U.S. nonproliferation objectives.

One program that I have concerns about is the MOX Plutonium Disposition Program, which seems to have an uncertain future on the Russian side, and it has experienced considerable cost growth and schedule delays on the U.S. side. We look forward to a dialogue with you about the way forward in this program.

In general, the fiscal year 2007 DOD and DOE budget request demonstrates the administration's continuing commitment to threat reduction and nonproliferation programs. I strongly share that commitment and believe that we must maintain and strengthen our support for these vital nonproliferation programs in the future.

The subcommittee looks forward to your testimony, and I thank each of you

for your service to our nation and your presence here today to provide testimony.

We'll go ahead and hear the opening statements from each of the witnesses, and then we'll turn to a round of questions. And when Senator Reed arrives, we'll certainly give him a chance to make any opening statement he would care to make.

Secretary Flory, we'd be glad to hear from you first.

MR. FLORY: Chairman Cornyn, thank you, Senator Collins, Senator Nelson. It's an honor to have the opportunity to testify before the subcommittee today to describe the Department of Defense's efforts to combat the proliferation of weapons of mass destruction, or WMD, an acronym we'll be using through the course of the day.

I appreciate the opportunity to summarize my prepared remarks, which I request be included in the record in full.

SEN. CORNYN: Certainly, without objection, all written statements will be made part of the record.

MR. FLORY: Thank you.

My goal today is to share with you many of the new approaches, new initiatives the department is taking to stop the proliferation of WMD, to preventing its use, and to enabling our war-fighters to accomplish their missions in a WMD environment, if necessary.

This is not a new mission. It's something we've been focusing on particularly since the events of September 11th and the promulgation of a national strategy on combating WMD in 2002. The challenge was summed up particularly well by President Bush in his January 2004 State of the Union address when he said, "America is committed to keeping the world's most dangerous weapons out of the hands of the most dangerous regimes." I would add to that by, under regimes, we would also include terrorist groups and others who might want to use weapons of mass destruction against us.

There's a great deal that has happened since September 11th, since 2002, and even since January 2004. At the strategic level, the strategic-level guidance preventing hostile states and non-state actors from acquiring or using WMD is one of the four priorities for the Defense Department that were identified in the Quadrennial Defense Review that was issued by Secretary Rumsfeld last week -- excuse me, last month.

I would add that it also supports and is an element of the other priorities, which include defeating terrorist networks, defending the homeland (in-depth?) and shaping the choices of states at strategic crossroads. So all of these priority areas actually relate to and support each other. This is the first time that a Quadrennial Defense Review has devoted so much attention to the threat of WMD.

Also recently, and also at the strategic level, the chairman of the Joint Chiefs of Staff, General Pace, issued the first-ever national military strategy to combat WMD on February 13th, 2006, last month. Our strategic approach is to build on the so-called three pillars of combating WMD, and

these were identified in the 2002 national strategy, and those are nonproliferation, counterproliferation and consequence management.

We use those terms as follows. Nonproliferation refers to actions to prevent the proliferation of weapons of mass destruction by dissuading or impeding access to or distribution of sensitive technologies, material and expertise.

Counterproliferation refers to actions to defeat the threat and/or the use of weapons of mass destruction against the United States, against our armed forces, against our allies or against our partners.

WMD consequence management refers to actions taken to mitigate the effects of a WMD attack or event and to restore essential operations and services at home or abroad.

The strategic framework and the more detailed functional requirements that flow to it is the department's vehicle for dividing the broad combating WMD mission into eight specific and definable military activities that we can address with better focus in the budget, training, doctrine and policy processes.

In addition to a new strategic framework, we have also revised our organizational structure to better position us to combat WMD. On January 6, 2005, the secretary of Defense designated the United States Strategic Command, STRATCOM, commanded by General Cartwright, who is here with me today, as the department's lead for synchronizing and focusing combating WMD operational efforts in support of our combatant commanders.

In this new role, STRATCOM supports the other combatant commanders as they execute combating WMD operations, and General Cartwright and his team, including Dr. Jim Pygnalia (ph) of the Defense Threat Reduction Agency, now are the advocates for developing mission requirements and shepherding them through the budget process. Those are mission requirements relating to combating WMD.

The first two mission requirements to be addressed in this manner are WMD elimination and interdiction, two areas where we need to increase our capability substantially. Those are two of the eight mission areas that were identified.

In addition, all DOD components were directed to realign themselves to improve execution of the combating WMD mission. Within the Office of the Secretary of Defense for Policy -- the (Office of) Undersecretary of Defense for Policy, for example -- my own office, the Office of the Assistant Secretary for International Security Policy, is a near-single point of contact for policy support for the combating WMD mission, specifically covering seven of the eight mission areas. And we continue to refine our organization within the Office of the Undersecretary for Policy.

When we pursue these strategic and organizational changes, we continue to move ahead with day-to-day activities to combat WMD. Many of these activities were initiated around the time of the national strategy to combat WMD in 2002. Some actually were started earlier, and many are entirely new or certainly are things that were initiated in the last couple of years.

The QDR group these activities into preventive and responsive dimensions.

With respect to the preventive end of things, nonproliferation treaties and export control regimes have been and remain integral elements of our strategy for combating WMD. These include the Nuclear Nonproliferation Treaty, the Chemical Weapons Convention, the Biological Weapons Convention, the Nuclear Suppliers Group, the Australia Group, the Wassenaar Arrangement and the Missile Technology Control Regime.

The Department of Defense brings significant policy and technical expertise to bear on enforcement of these regimes, including, for a few examples within my office, our Office of Negotiations Policy and the Defense Technology Security Administration.

But while these regimes are an important first line of defense, not all countries are members of all regimes, and many countries that are members of regimes cheat.

Weapons of mass destruction programs in countries like Iran and North Korea, for example, have highlighted the need for additional measures. One of those in particular is interdiction. Interdiction is an essential component in our efforts to counter the proliferation activities of both suppliers and customers. Interdictions can raise the costs for proliferators. They can shine a bright light on their activities. They can also deter suppliers or potential suppliers from going into the proliferation business in the first place.

President Bush launched the Proliferation Security Imitative, or PSI, in May 2003 to help focus U.S. interdiction efforts and to build the interdiction capacity of like-minded governments around the world. PSI partners -- and now there are over 70 of them -- define interdiction broadly to include military, law enforcement, intelligence and diplomatic efforts to impede and stop proliferation of shipments. This can involve sea, air, land, or what we call transmodal shipments, shipments that go from sea to air or land to sea or whatever. Again, more than 70 countries have indicated support for the PSI and we continue to discuss the initiative with other potential supporters.

The Department of Defense is responsible for leading the PSI Operational Experts Group process, which is the main focus for the operational aspects of PSI. This is a group that brings together experts in military, intelligence, law enforcement, customs and other fields (and?) allows them to plan and conduct exercises, to share expertise -- to share expertise, for example, on how different countries' legal regimes can be used to support counterproliferation activities.

To date, we've had 19 PSI exercises with a number of countries, involving a wide range of operational assets, including air, maritime and ground assets, and these have been hosted by a number of different PSI countries.

Another DOD program that supports the preventive dimension of combating WMD is the Cooperative Threat Reduction Program, or CTR, which, Chairman Cornyn, you mentioned earlier. The subcommittee is familiar with the history and the details of CTR, and we appreciate your support in the past.

My prepared statement addresses in detail the CTR's record over the past year and some of the issues and challenges we see in the year ahead. For now I'd like to highlight one of the CTR preventive activities in particular,

which is one in which the administration needs Congress's help in the short term to help ensure success. And I'm referring to the Nuclear Security Cooperation Initiative announced by Presidents Bush and Putin at the February 2005 G8 summit in Bratislava.

A key element of this initiative is to accelerate U.S. security work at Russian nuclear warhead storage sites, to achieve completion by 2008. That would be four years ahead of the original planned schedule. If we're successful in doing this -- and we certainly intend to be successful -- we'll be able to say by 2008 that we will have done all that we can to bring the security of Russia's nuclear weapons up to credible standards. This will be a significant achievement, and we need your help to achieve this goal.

Acceleration of the original schedule to 2008 requires additional funds for obligations during fiscal year 2006. And I would respectfully urge subcommittee members to support the administration's request for \$44.5 million in fiscal year 2006 supplemental appropriations for this project.

Mr. Chairman, if I could just quickly also address two of the specific issues you asked about in your statement, the Shchuch'ye project and the question of using CTR funds to Libya.

The Shchuch'ye project is a large project in which we've invested a great deal of money to construct a chemical demilitarization plant. We've had a delay in the project that is going to set us back, we think, somewhat over a year. The one subcontractor that entered a bid to carry out some of the work inside the facilities of actually putting in some of the equipment submitted a bid that is way too high. And both the U.S. government and our main contractor on the contract agreed that the bid was too high.

We have gone back. We have put the contract out for additional bids. We'll go through that process. We'll see what we emerge with and see if we can't get a better offer on the table this time. But we emphasize, for the committee's purposes, this means there will be a delay in the Shchuch'ye project.

The other matter you raised was the question of Libya, what CTR might do to contribute to the destruction of Libyan weapons. We had a team -- I think it was a State/DTRA team, with members from the State Department and our Defense Threat Reduction Agency -- that was in Libya in February. They have looked at the stocks involved. They've looked at the logistical and other issues involved.

We expect to get a report back from them with some options sometime next month, and I'm sure we'll have the opportunity to discuss that further with the committee. But that's the status on the couple of additional items that you raised.

Mr. Chairman, turning now to the responsive dimension of the combating WMD mission and what we have done to address the challenges here, the autumn 2005 program budget review undertook a comprehensive look at combating WMD funding that was carried on through the Quadrennial Defense Review.

Beginning with the 2006 budget submission, in fact, we added \$2 billion to the previous \$7.6 billion fiscal year 2006-2011 allocation for the Chemical-Biological Defense Program. This increase in the Chem-Bio Defense

Program funding represents a down payment towards re- prioritization of and within the combating WMD mission. This process is not complete, and we look forward to working with STRATCOM and with the committee as we proceed with these initiatives.

Another element of the responsive dimension is the establishment of an Army headquarters tasked to provide technically qualified chemical, biological, radiological, nuclear and high-yield explosives, or CBRNE, response forces to support geographic combatant commanders.

The 20th Army Support Command has this job now, which includes capabilities to quickly and systematically locate, seize, secure, disable and safeguard an adversary's WMD program, including sites, laboratories, materials and associated scientists and other personnel.

The impetus for setting up this organization was the work that was done prior to the Iraq war to set up forces to deal with the WMD that we expected to find in Iraq. And, in fact, many of the elements of the current group actually did serve as part of the Iraq WMD effort.

Today this organization includes the Army's Technical Escort Battalions as well as an Army Explosive Ordnance Disposal, or EOD, group. The headquarters of the 20th was activated in 2004. The next step for this unit will be to make it -- will be to make the entire unit, including the headquarters, as deployable as its many operational components. As it stands right now, some of the headquarters is civilian, so they cannot be deployed in the same way that the military components can be. But that's something we're in the process of changing.

Another element of the responsive dimension is to anticipate the continued evolution of WMD threats. As an example of how we're doing this, we are reallocating \$1.5 billion in Chem-Bio Defense Program funds to invest in broad-spectrum countermeasures against advanced bio-terror threats.

What we're trying to do is this. Currently the approach has been what somebody shorthanded as the "one drug, one bug" approach, whereby a particular vaccine or a particular remedy only worked against one particular pathogen. What we're trying to do now is develop broad-spectrum countermeasures that work against an entire class of threats.

We're also expanding our work with potential partner countries to improve response capabilities. In 2002, the department helped create a chem-bio-radiological-nuclear, or CBRN, defense battalion for NATO. Elements of this fully operational battalion were available just over a year later to support the 2004 Summer Olympics in Athens. This battalion has received personnel and capability support from 17 NATO nations to date.

We continue to encourage strengthening the battalion's capabilities to help drive member nations to improve their own combating WMD capabilities, as well as to improve the collective capabilities of the unit. This battalion will be a model for future collaboration as we expand our counterproliferation discussions with other nations.

In addition, we continue to develop bilateral discussions with international partners on counterproliferation issues ranging from policy and operational support to detailed technical cooperation. And we have or we are

establishing such bilateral working groups with a number of countries in Europe, the Middle East and Asia that share our concern about and our desire to prepare to deal with the WMD threat.

I would just add, as a general point here, one of the key themes in the Quadrennial Defense Review is the idea of developing partnership capacity. And both the initiatives that I just mentioned, as well as a number of things that we are undertaking, are designed to support that goal.

We can't do everything. We shouldn't have to do everything. And in a number of cases, arguably it's better if somebody else does it. So the idea of developing capabilities and developing capabilities of partner nations is something that runs throughout our entire approach here.

SEN. CORNYN: Secretary Flory, you're providing the committee with a lot of very good information. But in the interest of getting to the other witnesses, if you wouldn't mind summing up, and then, of course, we'll come back with some questions and answers.

MR. FLORY: Mr. Chairman, I can sum up very briefly and simply say we understand at the Department of Defense that combating the threat of WMD in a complex and uncertain world, a world that continues to surprise us, and often in unpleasant manners, requires a new approach. This approach is reflected in our strategic guidance, in our realigned operational structure and in the way we carry out our day-to-day activities. Our commitment to success is absolute. Failure is not an option.

I look forward to having the opportunity later to answer your questions. Thank you.

SEN. CORNYN: Thank you very much.

General Cartwright, we'd be glad to hear your opening statement.

GEN. CARTWRIGHT: Thank you, Mr. Chairman.

I think most of it has been covered. And I'll just hit on a couple of questions that you brought up in your initial statement, just to make sure we've got that as a starting point.

The threat really has been covered; the pillars, the national and the military strategy here. STRATCOM, in January of 2005, was assigned the mission. And key to the mission definition here, our role was that of synchronizing and integrating all of the mission areas that heretofore had been spread across the department.

And so we see ourselves in a position of advocating for the doctrine, the organization, the material solutions, the tactics, techniques and procedures that will serve and benefit the regional combatant commanders.

In August of 2005, the Defense Threat Reduction Agency was assigned as our lead combat support agency. And what they brought to the table for us was the technical expertise. They are recognized within the department as having the technical expertise and the relationships cross-government to allow us to affect this mission area in a way that we need to do it.

In the January time frame of this year, 2006, we stood up the initial operating capability of what we call the Center for Combating Weapons of Mass Destruction. STRATCOM is organized with joint functional components. But given that the Defense Threat Reduction Agency is, in fact, an agency rather than a military organization, and has a director at its head versus a commander, we chose to call this a center to clearly identify the fact that it was led by a civilian.

We have assigned to that organization a flag officer who gets up every day worrying about what it is that we need to do to bring closer the military capabilities and the technical expertise that DTRA brings to the table. Mar 29, 2006 12:12 ET .EOF

So there is a core element inside of DTRA at their headquarters in Fort Belvoir in Virginia that is assigned to bring closer together the technical expertise that resides there and the operational planning and execution functions that we're going to have to carry out in this mission area across all three pillars.

We also, as was discussed here in the opening statement, have a joint task force for elimination that we are standing up with the 20th Support Group of the Army -- a major effort and a major capability need that we have to get going and get going quickly. We're in the functional need-assessment phase of standing that organization up to make it deployable, make it responsive to the combatant commanders.

The objective here is to give the regional combatant commanders the capability all the way from what we call phase zero, which is where engagement activities within the theater, through combat operations and, if necessary, through the consequence management or the cleanup of activities at the end of a conflict. And to have one coherent organization looking across all those phases in support of the regional combatant commanders, that's where we want to end up. We intend to get there and get there as quickly as we can.

The next major milestone for us is at the end of this year to have that component -- that JTF for elimination -- up and running with a needs assessment and understanding of the requirements, the resources, both in manpower and dollars, that are going to be necessary, and the authorities for that organization to be effective. And I'll leave it at that and open to your questions.

SEN. SESSIONS: Thank you.

Mr. Paul.

MR. PAUL: Thank you, Mr. Chairman, Senator Nelson. Thank you for creating this opportunity to raise the level of attention and for your leadership on these paramount issues associated with nuclear weapons of mass destruction. It is indeed a pleasure to be here today to discuss nonproliferation activities of the Department of Energy's National Nuclear Security Administration.

Acquisition of nuclear weapons -- weapons of mass destruction -- capabilities, technologies and expertise by rogue states and terrorists pose the greatest threat to our national security, as the chairman eloquently

pointed out. Pursuit of these capabilities by terrorists and the states of concern underscores the importance of our threat reduction, detection and interdiction programs. The mission of the Office of Defense Nuclear Nonproliferation within NNSA is to detect, prevent and reverse the proliferation of weapons of mass destruction.

Our programs are structured to support multiple layers of defense against nuclear terrorism and state-sponsored nuclear proliferation. We work with more than 70 countries to secure dangerous nuclear and radiological materials and to dispose of surplus weapons-usable material. We also work closely with multinational and multilateral institutions, including the IAEA, the International Atomic Energy Agency, at the United Nations in our offices in Vienna and with the Nuclear Suppliers Group as well to strengthen international nuclear safeguard regimes and to improve the nuclear export control regulatory infrastructure in other countries. This multilayered approach is intended to identify and address potential vulnerabilities within the international nonproliferation regimes and to limit terrorist access to deadly weapons and materials themselves.

Since September 11th, 2001, the Office of Defense Nuclear Nonproliferation within the National Nuclear Security Administration has accelerated and expanded its implementation of a six-pronged defense in-depth strategy to deny terrorists and states of concern to the materials, the technology and the expertise needed to develop nuclear and radiological weapons. Our programs fall into those six broad categories.

First element of that strategy is to account for and secure nuclear materials in Russia and the former Soviet Union. To date, we've secured over 80 percent of the sites where these materials are stored and we are on course to finish all of our security upgrades by 2008 -- a full two years ahead of schedule.

Second prong is to detect and prevent the movement or trafficking of weapons-usable technologies and nuclear materials. We have installed radiation detection equipment at more than 50 border crossings in Russia and the former Soviet Union and European countries. The Megaports Initiative is currently operational in Greece, the Bahamas, Sri Lanka, Spain, Netherlands, and is at various stages of implementation in nine other countries, and there are many more on the list that we are driving towards implementing.

The third prong is to stop the production of new fissile material in Russia. We are working with Russia to expedite the closure of its remaining three plutonium production reactors in the formerly closed cities of Seversk and Zheleznogorsk.

Fourth, to eliminate existing weapons-usable material in Russia and former Soviet states through our Megatons to Megawatts program. More than 260 metric tons of Russian highly enriched uranium that is bomb-grade uranium from dismantled weapons have been down-blended to low-enriched uranium that is nonbomb-grade uranium, nonweapons-grade material for use in commercial nuclear power reactors.

As we speak, Mr. Chairman, Senator Nelson, 10 percent of all electricity consumed by Americans in this country comes from low- enriched uranium that formerly was a part of highly enriched uranium from Soviet nuclear weapons. This program ultimately will be responsible for disposing of approximately

20,000 nuclear warheads worth of material, and we're a little more than half way through that now.

We're also working with the Russian Federation to eliminate 34 metric tons of weapons-grade plutonium in each country and that's for over 17,000 nuclear weapons.

This, in part -- the MOX program that the chairman mentioned, and I look forward to taking some questions on both the Russian and the domestic progress on MOX.

Fifth prong is to eliminate or consolidate the remaining weapons- usable nuclear and radiological materials that exist throughout the remainder of the world.

Our Global Threat Reduction Initiative formed two years ago has converted 43 research reactors to use low-enriched uranium and plans to convert all 106 targeted research reactors by 2014.

GTRI, the Global Threat Reduction Initiative, has repatriated 145 kilograms of Russian origin highly enriched uranium from Russian supplied research reactors and approximately 1,200 kilograms of U.S.- origin highly enriched uranium in spent fuel assembly from U.S. supplied research reactors.

The U.S. Radiological Threat Reduction Program has recovered more than 12,000 radioactive radiological sources in the U.S. and the International Radiological Threat Reduction Program has completed security upgrades at 373 sites to date.

And our sixth prong is to support our U.S. diplomatic initiatives. The Department of Energy and the National Nuclear Security Administration through our national laboratories are playing a vital role in our nation's broader effort to challenge proliferation in Iran, prepare the groundwork for verifying any North Korean nuclear declaration in the context of the six-party talks, to promote universal implementations of the antiproliferation measures outlined in the United Nations Security Council resolution 1540, to update the Nuclear Suppliers Group guidelines, and strengthen international safeguards -- and of course assist Libya in the dismantlement of its former WMD program.

We also perform critical research and development. We manage a vigorous nonproliferation R&D program, and it is the technical base that provides our policy programs and operational agencies, including the Department of Defense, Department of Homeland Security and the intelligence community, with the innovative systems and technologies to meet their nonproliferation, counterproliferation and counterterrorism missions responsibilities.

A brief word -- Bratislava -- as you know, many of these programs have new, accelerated completion dates as a result of the joint statement that the general and Secretary Flory referred to at the G8 summit on Bratislava. We have made great progress because of this momentum that has been given to us by this joint statement between President Bush and President Putin. We've established a bilateral senior working group co-chaired by the U.S. secretary of Energy, Bodman, and the Russian Federal Atomic Agency director, Sergei Kiriyenko. Together, they oversee enhanced nuclear and security cooperation in five areas -- emergency response, best practices, security

culture, research reactors, material protection, control and accounting.

While the NNSA has been working with our Russian counterparts in many of these areas for several years, the Bratislava initiative truly did elevate our dialogue to a national level and has moved the cooperation to one of a shared partnership. One example would be our cooperation on physical protection of sensitive nuclear sites in Russia. That has been accelerated and will allow us to complete those by the end of 2008.

And I want to also make a brief comment while we're talking about nonproliferation on the importance of energy, nuclear energy and nuclear nonproliferation.

Last month, the president announced the Global Nuclear Energy Partnership. GNEP is a comprehensive strategy to supply the projected doubling of the world's demand for nuclear energy in the next four decades. We do this by using the science of the atom to provide clean, safe nuclear energy for decades to come in a way that reduces air emissions, advances nonproliferation goals, helps to resolve nuclear waste disposal issues and develops advanced safeguards and technologies. It is through GNEP that we can create a new model of nonproliferation both globally and domestically.

Under the administration's proposal, countries with secure advanced nuclear fuel cycle capabilities would offer commercially competitive and reliable access to nuclear fuel services to those countries who agree to forgo the development of indigenous fuel cycle enrichment and reprocessing technology.

On the budget, let me just say we thank the Congress very much for helping us to elevate the level of attention to nonproliferation issues. We ask for your continued support. This administration has more than doubled the funding for nuclear nonproliferation since its first budget in 2001. The request this year of almost \$2 billion supports the NNSA nonproliferation programs and represents almost a 7 percent increase over the budget for comparable '06 activities in a budget-constrained environment.

I have submitted a more detailed budget justification and statistical appendix for the record, and I'd like to take just a quick moment to run through a couple of those key items.

The activities that fall under the Bratislava Initiative -- our budget request will support the completion of upgrades of nine additional 12th Main Directorate sites by the end of 2008, acceleration of the Russian Research Reactor Fuel Return program and continued development and execution of specialized emergency management training for monitoring and assessing nuclear and radiological events. High among our priorities, it will also help us increase the sustainability activities to support transfer of the material protection and control and accounting activities to Russia by 2013. In other words, it's one thing to go in and secure a facility; you have to also then train the host country to maintain the capability and operate that equipment -- the sustainability function that we continue to try to transfer to the Russians.

The request also fulfills DOE's commitment to roughly 675 million to the G8's Global Partnership Against the Spread of Weapons of Mass Destruction. This is a program, of course, that Senator Domenici highlighted very eloquently yesterday during the hearing with Senator Collins. It also

supports six-party talks with North Korea and the scientist engagement in Russia, the former Soviet Union, Libya and Iraq.

In conclusion, I just again want to thank you for this opportunity to speak about some of the programs that we are engaged in that Congress has been so supportive of, and we ask for your continued support and certainly look forward to an opportunity to answer some of your questions. Thank you.

SEN. CORNYN: Well, thank you very much. We'll now proceed to a round of questions. And each of you have provided extensive opening statements, which, rather than interrupt and truncate, I thought have been very helpful in sort of laying out the overall groundwork that are necessary to understanding our nonproliferation and counterproliferation and counterterrorism efforts.

But I would like to just ask -- maybe start with Secretary Flory. I understand General Cartwright's mission within the Department of Defense when it comes to synchronizing and integrating the department's efforts on counterproliferation, but I'd like to get your comment on the overall -- who is responsible government-wide across agencies for coordinating and integrating our efforts when it comes to counterproliferation and nonproliferation? And my understanding is the ultimate responsibility stops at the National Security Council and then, obviously, the president. But I'd like for you to give us some sense of your confidence level that things are going well, that we are filling the gaps and anticipating departmental differences in our approach so that we can have some understanding about how we're handling these important missions government-wide.

MR. FLORY: Senator, you're right; we have focused primarily on what we do within the Defense Department and how we organize internally. The focal point -- I mean, as you say, ultimately the responsibility is with the president and the president has the National Security Council and the National Security Council staff. I would say the focal point for most of our efforts is the director for proliferation strategy (post-strat?) office and the NSC staff where there's a senior director who is the -- sort of the person who pulls together the different departments on many of these issues. I think you've seen an evolution on a lot of fronts since the administration took office, particularly since September 11th, that have been manifested in the strategic -- in the first strategy for combating WMD in 2002 and the succession of additional documents that I cited to you earlier -- most recently, the most recent National Security Strategy.

I think that -- I would say that I think we have made a lot of progress in organizing for a new type of threat, a threat that in many ways is more diffuse and more complex certainly than the Cold War threat and even arguably than the way we've perceived the threats in the 1990s. I think that what one always -- the nature of the threat is such that one would never want to say one was totally confident because of the uncertainties involved; because of the effort of proliferators, both countries that want to sell things and countries that want to get a hold of things; the extraordinary denial and deception measures that they use, the large amounts of money that they spend in doing the things they're trying to do.

This remains a very hard target and a very complex target, and this is one of the reasons that in the QDR and many of our other documents we emphasize the theme of uncertainty. We've been surprised before. We were surprised at

the time of the first Iraq war at the extent to which the Iraqi nuclear problem had advanced as well as later on as we found the extent of biological and chemical weapons that Saddam Hussein at that point had managed to amass. We were surprised when we went into Iraq in 2003 because we expected to find weapons there. We were focused for a number of years on Libya's chemical weapons program. The nuclear program there came to our attention and that was an unpleasant surprise.

So the basic point I would say is that yes, we've made a great deal of progress in the way we have organized and the guidance we have developed to deal with this threat. On the other hand, this is a very adaptive threat. It's a threat where people are watching what we're doing and trying to find ways to get around what we're doing.

I would ask my colleagues -- they might want to add on that. I know General Cartwright sees this on a day-to-day basis as well as Mr. Paul, so I would --

SEN. CORNYN: Let me put another little fine point on the question, and then I'll ask General Cartwright and Mr. Paul to comment. But it seems to me that all of the wonderful work that's occurring that each of you and people working with you are doing to reduce the threat from proliferation of weapons and to prepare ourselves to counterproliferation of weapons can essentially be defeated in an A.Q. Khan or somebody like him sees that nuclear materials get in the hands of people that shouldn't have them. And I just want to make sure and give you an opportunity to express yourselves on whether you believe that we are prioritizing measures appropriately and whether you believe that we are doing -- since resources are not limitless, that we are putting our money and our resources and our personnel on the issues in a priority way that are most likely to cause us harm.

General Cartwright?

GEN. CARTWRIGHT: Mr. Chairman, I think that's a good question. It gets really at the heart of the issue.

As you start -- for STRATCOM -- as we start to enter into this mission area, the objective is not to invent a whole new organizational construct, go out and buy all new equipment, et cetera, but to leverage what is there, understand where the gaps in our capability are and how can they be quickly filled. A key part of this mission area is our interfaces with our eight interagency partners as well as our allies. And so where we can, we're taking advantage of those existing relationships clearly between DOE and STRATCOM, NNSA and STRATCOM, a long heritage of sharing on the technical side and being able to leverage our technical capabilities (to ?) the nuclear world, et cetera.

So we're trying leverage off of those capabilities.

Within the Strategic Command's portfolio are the intelligence, surveillance and reconnaissance skills that will be so critical to doing some of the things that you alluded to in trying to find these weapons, fix them, and then, if necessary, go out and take them, destroy them, whatever is necessary. Those skills are within the portfolio.

What we're trying to understand now, as we stand this organization up, is,

how well will they scale up to the size and how quickly will they be able to respond to an ever changing adversary? And do we have the right organizational constructs? Do we have the right relationships set up to be efficient at the doing that? And not to react to the adversary, but to get in front of the adversary; to basically be determinate of where they're going rather than the other way around.

And I'll tell you that this is a work in progress. I'll tell you that the organizations are coming together and issues of turf are not really getting in the way. And at the agency level, without stepping on checks and balances, we're creating relationships that are inside the decision cycles of the adversary, which to me is the key attribute. We can have wonderful studies and decisions, but if they occur and they're not actionable because they occur after the adversary's already acted, it's of no value.

And so to us, it's critical to make sure that whatever we set in place has to be able to make the adversary react to you, get in front of their decision cycle and change the calculus in their minds. So to me, that will be the litmus test of how well these organizations actually perform.

SEN. CORNYN: Thank you.

Mr. Paul, do you have a brief response?

MR. PAUL: Briefly, Mr. Chairman.

It's an excellent question. You know, nothing binds men together more than a common challenge. And just as nuclear proliferation and the threat of nuclear terrorism has bound members together in Congress in a bipartisan way to provide extraordinary attention and support and resources for this, so too within the interagency. It binds us together. The working relationships are really fantastic.

I'm not going to tell you that there aren't difficulties with the interagency at times. There's supposed to be a certain amount of tension, which is healthy. But in this arena, when we're focused on keeping people with evil in their hearts who would harm innocent people from doing so on American soil, that tends to bind us together in our organizations. Mr. Flory and General Cartwright and Undersecretary Joseph and DHS and National Nuclear Security Administration I think work very well in this regard.

Is there progress to be made? Absolutely. Every day we worry about whether we have the right construct, for example, the right organization in order to get our work done. But there is strong agreement on the need to develop the right technology, to deploy that technology to ensure that we have the management structure and the focus and the attention on getting this job done because it's so important.

SEN. CORNYN: Thank you very much.

Senator Reed.

MR. FLORY: Senator, if I could just add one small point. General Cartwright made the point very well about resources. In the Defense Department, we already get from the Congress and the American people a substantial budget, and we use it to cover our needs, and we allocate in what we think is an

intelligent way.

One of the ways in which we can improve our capability is in some cases using a relatively small amount of money differently. For example, in terms of interdiction, the Navy is -- and this is one of the items -- one of the eight mission areas that General Cartwright is tackling as a priority -- the Navy has done a good job of using relatively small amounts of money to increase its organic interdiction capabilities on ships deployed. The approach earlier was more an approach that -- the idea that you had to have some specialized operators to come in and do an interdiction. In most cases, you actually don't.

So what the Navy has done -- again, without spending a whole lot more money -- has developed more deployed organic capabilities that can carry out interdiction. So it's not just a question of resources; it's a question of using the resources we have intelligently and getting -- in ways that give us that extra bit of leverage.

SEN. CORNYN: Thank you.

Senator Reed.

SEN. JACK REED (D-RI): Thank you very much, Mr. Chairman. And thank you for your consideration this morning with my schedule particularly.

And I have an opening statement, which I'd like to put in the record, and at this time yield to Senator Nelson, who has been attentive throughout the hearing.

SEN. BEN NELSON (D-NE): Well, thank you very much, Senator Reed. I appreciate the courtesy.

General Cartwright, you mention in your written testimony that STRATCOM has developed a Center for Combating Weapons of Mass Destruction, and that there are going to be former Soviet scientists and others who have expertise in this area, and they want to turn over their knowledge on access to weapons-grade plutonium and other very valuable information. Can you give us maybe some specifics as to how this would work?

GEN. CARTWRIGHT: The Center for Combating Weapons of Mass Destruction had its initial operating capability declaration on the 1st of January this year. It is headed -- it is housed inside of the Defense Threat Reduction Agency at Fort Belvoir. Dr. Jim Tegnelia, who is here with me today, is the lead of that agency.

We have several programs that are of record and are in execution to try to help to both retrain people and take these skills and make them usable in other disciplines, use these skills in a way that's synergistic with our aims in things like -- not necessarily for the Russians, but you know, proliferation security initiatives and other types of activities.

We also have another activity in Omaha with STRATCOM that seeks to create partnerships in the civilian sector and reach out through that area to try to find ways to address many of these problems -- particularly as we start to get to the heart of problems in the future of biological agents and chemical agents -- to try to find ways to address these problems that are

probably nonstandard, but take advantage of all of the expertise that lives in the academic world -- not only in the United States, but abroad -- and in the business world.

And that agency, coupled with this Center for Combating Weapons of Mass Destruction, we hope to see some synergy that grows out of that, that starts to change the mind-set and offer a path forward that is positive in nature versus the one that we're on, which is -- in many cases is just continue building the next generation of an agent, whether it be nuclear, biological or radiological.

SEN. NELSON: Thank you.

Secretary Flory and Mr. Paul, when I hear words like uncertainty and surprise, those are words that are not comforting. But after all the effort is made and with and expectation of success in 2008, how certain, on a scale of one to 100, will we be that we've identified all the nuclear arsenal, secured it, and have kept it out of the hands of those who would misuse it?

MR. PAUL: Senator, one thing we are certain of to a 100 percent degree is that the threat is real, and that those persons with evil in their hearts will continue to try. And it's our job to make sure that they fail every day, all day. It's our job to ensure that our certainty about whether we're doing everything possible is at its peak as well.

I can't give you an exact number. What I can tell you is, is that if we have in the NNSA 37,000 committed federal, military and civilian patriots who work every single day, 15-hour days, trying to make sure that this threat doesn't ultimately succeed on our soil. I have a high degree of certainty that the American people are safe and can be confident in knowing that we are doing absolutely all that we can do every single day.

SEN. NELSON: What if we were to relate it to just the former Soviet Union and the Russian stockpiles? Is that a -- is there a possibility of identifying some degree of certainty there?

MR. PAUL: We have historically recognized that that is an area globally of greatest threat. That's where the material is. After the fall of the Soviet Union, security -- we found out that security to them, quite frankly, had been a ring of soldiers, many of whom simply went home shortly after. And there were very little physical protection. All of the material protection and control and accounting systems that exist there today are U.S. origin that we put there and that we manage every single day. And we are very close to wrapping up that work.

In the former Soviet Union, for example, we've completed 41 of 51 material sites. That's 80 percent where we've completed all of those upgrades. Forty-seven of the 73 warhead sites; that's 64 percent. And we will have all of those completely secured by the end of '08. We risk-based those, we prioritized them in order to increase our certainty, if you will. We're making great progress. The Congress has been very supportive.

It takes time, though. Access is one issue. And of course, it's obvious that these are facilities that exist in a country that has to cooperate with us in order to let us get in there and do our work. Once we get access, we have high degree of certainty that by leveraging the extraordinary technology of

our laboratories -- Sandia National Lab, Los Alamos Lab, Livermore Lab and so many others -- that we can do the job, do it quickly and do it well.

SEN. NELSON: When we identified those 50-plus sites, have we been able to do any kind of accounting or inventory, based on what was expected to be there versus what we found?

MR. NELSON: Yes, and in -- well, in the '90s -- late '80s, early '90s -- there were predictions about how much material would be in those sites. And of course, they were merely predictions. And as time went by, as we got better and better intelligence, as we were able to put our technical experts inside with access, we learned that those predictions weren't always accurate. And each time we get a new piece of intelligence, a new piece of data, we feed that into the calculus in making that risk-based determination of what equipment to put in where and at what time. But certainly, it is a work in progress truing up our decade-and-a-half old predictions.

SEN. NELSON: Well, the final question is, is it reasonable to expect that not everything was there that had originally been there? In other words, are there missing items that we're aware are missing as -- what do you know that we know versus what we don't know?

MR. PAUL: I think the question and the point is, is that you never know what you don't know. And we do take that point. That is something that we build into our --

SEN. NELSON: I understand. What I'm trying to say is, do we have any information that would indicate that we expected something to be there that isn't there --

MR. PAUL: No.

SEN. NELSON: -- or wasn't there, with some degree of reliability to where we would be concerned that there is something missing, putting it that way?

MR. PAUL: No.

SEN. NELSON: Thank you, Mr. Chairman.

Thank you.

General?

GEN. CARTWRIGHT: I would just add, though, I mean, you don't want a false positive.

SEN. NELSON: Well, that's what I'm trying to get to.

GEN. CARTWRIGHT: And that ought to keep us awake at night. I mean, we can't assume that we do, in fact, have full accounting of what exists today. And certainly, the way technology is moving, building fissile material is a relatively complicated process. But as we move to the future and worry about the next generation of weapons of mass destruction -- may it be bio or some other -- those production requirements are not the same and can easily be disguised. And we should worry about what we don't know.

SEN. NELSON: Well, General Cartwright, with you worrying about it at night, I think I'll sleep better at night. Thank you.

Thank you, Mr. Chairman.

SEN. CORNYN: Thank you, Senator Nelson.

Senator Reed.

SEN. REED: Thank you very much, Mr. Chairman.

Thank you, gentlemen, for your testimony today. And let me follow up with a question regarding Senator Nelson's topic.

And that is, we know very little about the tactical nuclear weapons that the Soviet Union had and now that are in the hands of Russian and successor states. Last year we proposed an amendment on the committee to try to get a better handle on that. Can you give us, Mr. Flory -- or Secretary Flory -- a notion of what we're doing to initiate discussions and really try to determine the status of their tactical nuclear weapons and what we can do to put them into controlled circumstances?

MR. FLORY: Senator Reed, as you point out, the status of those tactical weapons has been a concern from the beginning. I don't want to say we've got a handle, but we've got processes in place to deal with the strategic and, as we mentioned specifically, accelerating the improvements in the security on the stored, nondeployed weapons.

I would have to get back to you specifically with respect to any discussions. Secretary Paul may have something that he can add to that, but if I could back to you on the record.

SEN. REED: Surely, Mr. Secretary. Yeah.

Secretary Paul?

MR. PAUL: Together, we will.

SEN. REED: Okay. I mean, one of the obvious things -- and you might want to comment, General Cartwright -- is that some of these weapons are rather mobile and small, and ideal if you had a shopping list as a terrorist -- it'd be on that shopping list and we've got to be concerned, absolutely concerned.

Let me raise another issue with Secretary Flory and Secretary Paul. And that is, the 9/11 commission evaluated many of our national security efforts, and this commission is one of the most respected voices today on a bipartisan basis. And they gave the administration a D with respect to securing radiological and nuclear materials in the Soviet Union.

And I presume -- correct me if I'm wrong -- that this is agreed by all to be a high national security priority in the United States. Essentially, what they've done is challenged the administration and Congress to speed up these efforts and be more proactive and more effective.

What's the reasonable timeline? The 9/11 commission said it would take us 14

years at the current rate to secure these materials. I note that DOE and NNSA are talking about securing all materials by 2013. There seems to be a gap, first of all, in the perception of what the process is, how fast it's going. But the bottom line here is, what do we have to do to accelerate the securing of these materials? Secretary Flory and Secretary Paul.

MR. FLORY: I would just make one point. One of the things we're trying to do to secure in particular the so-called stored warheads is the Bratislava initiative announced by President Bush and President Putin. And in fact, we have a supplemental request before the Congress now for \$44 million. That will certainly help because that's one area where we recognize that there was a need to move faster on that. We worked with the Russians because, frankly, it wasn't easy to get the level of transparency and understanding and agreement on that side to let us know the things we needed to know in order to help them to solve this problem.

And I think that brings us to an important point here: the Russians continue to have the primary responsibility there, and it's something we need to keep as part of the context. We can do with them what they are willing to do with us. And they have been, over time, willing to do more things, but the fact of the matter, at the end of the day, they are ultimately responsible.

SEN. REED: Secretary Paul?

MR. PAUL: It's an excellent question. As I said on the MPC&A upgrades, we firmly believe that we will have this complete, 100 percent, by the end of '08, a full two years ahead of schedule. What has given us a lot of momentum is Bratislava, and President Bush and President Putin coming together and making that clear, joint statement.

But what's also given us a lot of -- a lot of momentum is the broad, bipartisan support from Congress and the funding. And as we talked about before, this administration has doubled the amount of funding that has gone to nonproliferation and addressing this threat. We continue to make progress. We don't slow down. We look for ways to accelerate as much as we can. We have accelerated a lot.

We've gotten more and more access into the Russian facilities, but it's not just Russia. It's outside the Soviet Union states, and that's really the next chapter. And what we've been working on for several years is broadening it out throughout Europe, reducing the enrichment of those research reactors under the six remaining research reactors, downblending, putting in security measures at those reactors, repatriating Russian-origin spent nuclear fuel and fresh nuclear fuel, all of which is highly enriched uranium, and repatriating the fuel that had as it's origin America's -- American/U.S. fuel origin.

We continue to look for ways to accelerate that. I take your point. We'll continue to do that.

SEN. REED: Let me -- a quick follow-up question.

Secretary Flory points out that there's a supplemental request, which I think is very important, which we have to recognize. Do you have sufficient funds, Secretary Paul, to meet this 2013 goal of securing these materials?

Or do you need incremental funds going forward and we should be -- either through supplementals or enhanced budget authority now give you these additional resources?

MR. PAUL: The president's 2007 request provides for -- as reflected -- provides for the adequate funds to meet these --

SEN. REED: And these are 2013?

MR. PAUL: Yes, sir.

SEN. REED: Okay.

Thank you, Mr. Chairman.

SEN. CORNYN: Senator Clinton.

SEN. CLINTON: Thank you, Mr. Chairman.

Well, obviously, Mr. Paul, this is a matter of great concern to us, especially in light of Linton Brooks' comments in a recent USA Today article saying that one-third of the world's 130 civil nuclear research reactors lack security upgrades needed to prevent terrorists from stealing material that would enable them to make a nuclear device, including even atomic bombs. We just need to know as precisely as you and others can lay out how to make good on the priority that the president expressed during the 2004 election and which many people agree with, that, you know, preventing rogue states and terrorists from acquiring the materials necessary for a nuclear weapon has to be our top priority.

Why aren't these reactors secure? And you know, are people refusing our assistance? Are we not offering our assistance? Is there no international mechanism capable of coming in and trying to help secure these reactors?

MR. PAUL: Well, first of all, to correct one part, I think the article could be read, could be interpreted the way that you have stated. It's actually not -- would not be completely accurate. Administrator Brooks did not say that there were all these reactors that were without security upgrades. Through our Global Threat Reduction Initiative and through NA-21, (within ?) nonproliferation organization, we have a very effective program for providing the security of those reactors, both through this administration and the previous administration, who placed attention on this as well.

We originally identified 173 research reactors throughout the world that had highly enriched uranium in them. We started working down that list as to those that already had security upgrades, with countries such as France and Canada who take care of their own security. And what we came up with was a list of about 106 that needed additional security upgrades and down-blending from highly enriched uranium to low-enriched uranium. What we're -- and we have performed those upgrades at a total of 76 sites.

Of the remaining 27 research reactors upgrading -- there's currently upgrading of six of these that we're working on -- two in Chile, one in Mexico, Russia, Vietnam and Peru. And of the remaining 21, we have identified four new sites where security is not adequate, but we work on access.

As you know, this requires cooperation, and it's -- this committee -- this subcommittee and the committee have helped us in highlighting the focus and attention on that, and that helps us get some access. But it's hard to get into some of these sites.

But I can assure you that we are on top of these sites where -- we have made security upgrades in most of them. We have a program in place to down-blend the uranium in them. And as to the small number of sites that we believe need security upgrades and that we don't have access on, we are working very hard to get that access through the international regime and through other contacts and through the IAEA.

Thank you for the question.

SEN. CLINTON: Well, I appreciate the update on that, and obviously, as you said, this subcommittee and then the full committee are very concerned and focused on this, so any additional authority, any additional resources, I hope that you will let us know. Obviously, that has to remain one of our top priorities.

MR. PAUL: By the way, on the small list of other sites where we don't have access, we could provide you, in a different setting, some information on those.

SEN. CLINTON: Thank you very much. Mr. Paul, I want to follow up on some questions that I asked Secretary Bodman back in February when he testified before the full committee and we had a chance to discuss the Global Nuclear Energy Partnership. During that hearing, the secretary said he would get back to me with answers to some of my questions. I haven't yet heard back, so I'll ask similar questions to you and I hope that I will hear back from one or both.

Now I believe that, you know, GNEP is a well-intentioned proposal to help meet the energy needs of our country and our allies and be part of a comprehensive strategy to reduce our dependence on foreign oil. But I have some serious concerns about the program, which would create a global system of nuclear reactors and U.S. reprocessing plants over the course of decades that could cost tens if not hundreds of billions of dollars. And I am concerned about independent research that contradicts the administration's underlying claims that provide the rationale for GNEP. And I have two questions.

First, studies by the National Academy of Sciences, MIT, and even the Department of Energy itself, have pointed out worrisome risks with the program. First, we know reprocessing spent fuel creates plutonium, which can be used not only in civil nuclear energy reactors, as laid out in the plan, but also to make nuclear weapons. The U.S. has consistently opposed reprocessing, even for allies such as France. And while we focus on how to deal with Iran's quest to develop nuclear weapons and what to do about a nuclear-armed North Korea, a country which, as you know, does use plutonium in its nuclear weapons, I would ask first, how do you respond to the questions and the risks laid out by the independent analysts? And do you see a contradiction between GNEP and our global nonproliferation goals?

MR. PAUL: Not only is there not a contradiction, the two are absolutely

critical for the success of each. It is certain that the world will supply the more than doubling of the demand for nuclear power globally over the next four decades through the use of the science of the atom. The rest of the world has concluded that. That's no longer a decision for America to make, quite frankly. And the rest of the world, in order to do this, will continue to make use of the nuclear fuel cycle and will continue to recycle fuel. We no longer in America have a decision on whether that will occur.

What the Global Nuclear Energy Partnership does do, however, is provide a narrow window of opportunity where, through leadership, America can guide that in a way that improves our nonproliferation regime globally and improves the proliferation resistance of those fuel cycle processes themselves.

It is through our research and development and technology and support that we've been able to provide some enhancement to the current PUREX processes that is the current methodology whereby the fuel cycle states reprocess fuel now. GNEP proposes a form of recycling that gives enhanced proliferation protections -- does not separate plutonium. Current recycling separates plutonium into a pure stream.

What GNEP is proposing is a different model whereby plutonium is not separated into a pure stream; it continues to have these other actinides and lanthanides connected to it.

On a global setting, as I said, the rest of the world has come to the conclusion that nuclear power will be an important part of providing energy supply, not just to America and to allies but also to those countries who aren't our allies, who want the peaceful use of the atom.

GNEP is an opportunity to allow the peaceful use of the atom, the use of nuclear energy for energy purposes, but do it in a way so that you bring together a partnership of countries whereby those who don't have a fuel cycle can access the energy without accessing the capability that can be converted into a military threat. That is a notion that is as old as President Eisenhower's speech in 1953 before the U.N. assembly. And we have made some progress on it. GNEP puts together all of these pieces. And we've been very encouraged by the support that we're getting from the global community, not only from the potential supplier states -- Russia, China, Japan, France, the U.K. -- and the IAEA secretary, ElBaradei, but also from potential recipient states, those states who might say that if we had a mechanism to access nuclear energy without developing a recycling capability in-house, we might go in that direction; let's sit down and talk. Very encouraging.

SEN. CLINTON: Could I just have a follow up on that? Because as I understand the critique from various nonproliferation experts, including the MIT study that I mentioned earlier, the so-called proliferation resistance reprocessing system that GNEP claims it would promote is proliferation-resistant only in comparison to other methods of reprocessing, not as compared to the original spent fuel. The spent fuel itself is actually far more proliferation-resistant than GNEP-reprocessed plutonium, because it's too radioactive to be handled safely by terrorists.

So in other words, the experts claim that the GNEP program would actually make it easier for terrorists to steal dangerous materiel to use in an

attack. And you know, we're about to embark on an undertaking that could very well cost hundreds of billions of dollars, and I'm well aware of the desire on the part of many countries, including the administration here at home, to promote nuclear civilian use for energy purposes, but I'm just worried about the trade-off. I mean, if we spent hundreds of billions of dollars refining coal gasification, we would provide clean coal without providing, you know, spent plutonium as a potential terrorist attack. So how do you make that trade-off?

MR. PAUL: Fair question.

First of all, the purpose of these countries in accessing the science of the atom to provide energy is not to develop or promote nuclear power. It's to have electricity for hospitals or first responders and for schools.

SEN. CLINTON: Well, it's nuclear power to fuel electricity.

MR. PAUL: It's to have electricity and to find a way to provide that electricity in the cleanest, safest way. And they have come to nuclear power as the one zero-emissions method for doing that.

Now, the question is, can America provide the leadership to help that new partnership be crafted globally so that it is more proliferation-resistant? Now, I think we share common concerns and goals. We may not share all the same conclusions -- (chuckles) -- as to the, quote-unquote, "proliferation resistance" of one chemical process as opposed to another, based upon a spent-fuel standard. First of all, that process that you are talking about already exists. It's what all of those countries are currently using. So to go back and say, well, let's compare it to not doing recycling at all -- quite frankly, we don't have that opportunity any more. The rest of the world is recycling fuel and will continue to recycle spent fuel. The question is, can we come up with a way that's even better, and can we be a player by asserting leadership? And we think that we can. And the global partners that we've spoken to also think that through this partnership we can show leadership to provide a more proliferation- resistant process.

Some of the studies that you're referring to, or some of the comments, have as their predicates certain assumptions that are not necessarily -- don't necessarily apply. You can design a recycle process through UREX to have whatever radiation level protection that you want, if that's the sole way that you're going to define proliferation resistance.

But proliferation is something -- nonproliferation is something that's far greater than a mere radiation dose level at 100 rad or rem per hour, or an 80-to-100 spent fuel standard. You can have UREX that is at that standard, if that is your goal. But the safeguards technologies that America has developed can help these other countries to deploy even on their PUREX processes has moved far beyond these earlier standards.

We have the opportunity to shift them to a more proliferation- resistant process that does not separate out plutonium and that provides safeguards and securities, verification technologies, mass accounting that is available with this process that is not available with others. Remember that when you keep that plutonium entrained with other isotopes, the lanthanides and the other transuranics, you have signals, signatures, additional tools that a nuclear engineer can use to ensure that there is not diversion -- tools that

I do not have available to me with PUREX.

SEN. CLINTON: Thank you, Mr. Chairman.

SEN. CORNYN: Thank you, Senator Clinton. You raise some very serious concerns, and certainly most members of Congress aren't nuclear physicists, and we need the best information we can possibly get when determining what the policy of this government should be in so many of these areas. So we'd encourage you to continue to supply us with that best thinking and the best sciences out there so we can answer some of these questions, at least as satisfactorily as humanly possible.

Mr. Paul, the Fissile Material Disposition Program under which the United States and Russia committed to dispose of 34 metric tons of surplus weapons-grade plutonium is, of course, laudable in intent, but it's been plagued by numerous problems. There's been a two-year delay in the program due to an inability to agree on liability issues for U.S. contractors. And now there's an agreement, but it awaits Russian signatures and ratification by the Duma.

The impasse over liability caused the United States to postpone construction of the U.S. MOX fuel fabrication facility in South Carolina, in order to maintain parallelism between the Russian and the U.S. programs. In 2005, the DOE inspector general report criticized the management of the U.S. program and assessed that the cost of the U.S. MOX facility will be \$3.5 billion, \$2.5 billion more than the original DOE estimate in 2002.

The FY 2007 budget request for the program is \$638 million, nearly one-third of the total DOE nonproliferation request for that year, and now it appears that the Russians are no longer committed to the program as originally conceived. Would you give us your view of the status of that program and where you believe the future leads?

MR. PAUL: Yes, Mr. Chairman.

The plutonium disposition model -- the goal of disposing of 34 metric tons of weapons-grade plutonium, both from Russia and 34 metric tons from surplus materiel stockpile of the United States -- is a goal that is shared by both this administration and the previous administration. The previous administration put in place a plutonium disposition agreement in 2000 with the Russians for the disposition on the Russian side and the U.S. side.

On the U.S. side is our MOX program -- that is, mixed-oxide fuel fabrication facility and pit disassembly conversion facility -- to take that plutonium from our stockpiles, convert it into a mixed-oxide fuel that can then be irradiated in light water reactors, power reactors that produce electricity for us. On the Russian side, the Russians have never particularly supported the notion of consuming that plutonium in light water reactors. Their preferred method is through fast reactors, and it is true that we have not made as much progress on the Russian side. They have started site preparation two years ago on their MOX facility, as we started site preparation this past fall on ours.

The challenges, the difficulties with this are, for one, again, the Russians would prefer to go in the fast-reactor direction. Two, the liability dispute, the question about what liability protection would apply with U.S.

workers in the Soviet Union, significantly delayed the progress on both sides, had a significant impact on the project costs. As you delay a project, a multibillion-dollar project, the long-lead procurement costs increase more and more and more. There has been uncertainty because of those delays that has, to some extent, affected appropriations, and it has resulted logical questions that would be asked from the legislative branch about --

SEN. CORNYN: Well, let me ask you this, Mr. Paul. Do you believe that Russia is still committed to disposing of excess plutonium through the MOX program and, if not, what are the costs and benefits and risks to the United States going down another disposition path?

MR. PAUL: As confirmed by recent communications between the director of Rosatom, Sergei Kiriyenko, and Secretary Bodman, they are still committed to the disposition of 34 metric tons, although their preference is not for light water reactors; their preference is for the fast reactors. What they have said, which is pretty consistent with what they said from the beginning, is that unless the international community provides all the money to do it, they're -- they're saying that they are supportive of doing it if the international community provides all of the money to use light water reactors. If instead of using light water reactors they can use their BN600 and move towards an upgrade of that, a BN800, a fast-reactor model, then they are saying that they would put in a significant amount of the money themselves.

So we are currently considering some discussions with them to figure out what would it take to get them to dispose of their plutonium in parallel with our disposition of plutonium, pursuant to the commitment that this administration and the previous administration have made to developing this MOX facility now in South Carolina.

Senator Graham has been a strong leader on these issues, both as to the facility itself, but also as to the importance of reducing the plutonium footprint worldwide.

SEN. CORNYN: If we were to delink the U.S. and Russian plutonium disposition programs, what would be the likely impact on the Russian program and on the U.S. program?

MR. PAUL: I think it could have a significant impact on the extent to which the international community would be willing to contribute. Now, the State Department has advised that they think that the probability is lower and lower that the international community is going to support this with funding at a greater and greater level. That's a lot of qualifiers.

There's still an opportunity here for the international community to provide significant support. I think if you de-link it right now, you probably send a strong message to those contributors that causes them to be even less receptive.

SEN. CORNYN: Well, if Russia decides to head down a different path, should the U.S. disposition program be considered a nonproliferation program or simply a program of disposing of excess U.S. material that should be considered in a wider context of DOE nuclear material disposition and cleanup?

MR. PAUL: We think both. This administration and the previous administration both thought that it was important to not only reduce, condense, consolidate the amount of fissile material in this country and its locations, and also for the worldwide nonproliferation effort to reduce the threat of people getting their hands on that material that can be used to make a nuclear device. For both of those reasons we continue to be committed to disposing of that material.

SEN. CORNYN: Secretary Flory, two years ago Libya declared its intention to renounce all WMD programs and made a full declaration of its considerable chemical weapons stockpile as a first step toward elimination. The United States has offered to help Libya in that connection, and I understand the administration is currently considering which agency of the U.S. government will be charged with carrying out that assistance.

It would seem that the Cooperative Threat Reduction Program is the most logical candidate. CTR is aimed at eliminating WMD threats. The Congress has provided authority to use CTR funds for activities outside of the former Soviet Union, with the specific example of Libya in mind. And CTR has the experience and expertise to undertake this activity based upon its experience in Russia and now in Albania.

Do you support the use of CTR funds for chemical weapons elimination in Libya? And what factors is the administration considering as it weighs this decision? And then let me ask you, when you're answering those questions, to answer one more. What is the estimated cost and timeline for carrying out the chemical weapons elimination program in Libya? So do you support the use of CTR funds? What factors is the administration considering as it weighs its decision? And what's the estimated cost and timeline?

MR. FLORY: Senator, the -- there was a team, a joint team -- I think it was State and DTRA team -- that was there in February at the site. They looked at the site and the surrounding area. It's a pretty remote site. I think it's about 600 kilometers away from Tripoli. The team that went there is supposed to present options in sometime next month. So given where we are in the month, pretty soon. I'll be in a better position to get back to you after that.

I think some of the factors that we would -- we would look at, and I think these will be incorporated in the options that are presented, are what is the conditions of the munitions? What is the proliferation risk we believe they pose? What are the technical aspects? For example, one part of the problem I think is going to be transportation. The -- where these things are now does not have any water, and chemical demill is a very water-intensive process. So there are a number -- a number of issues to be looked at, both in terms of the threat, in terms of the technical aspects of how we do it. And once we've had a chance to look at the options that are presented, we will be back to the Congress I'm sure.

The question is, there is the State Department nonproliferation money that's available, there's also the CTR money, and that's I think the sort of choice you referred to up front. If we could back to you when we know a little bit more about the scope of the problem, that would be -- we'd be pleased to do so.

In terms of the cost, because of some of the factors I just described, including the distances involved, the lack of water, the weather -- I understand that it's 140 degrees during the day for most months of the year there -- it's going to be fairly expensive. I haven't seen any, you know, figures we have a high degree of confidence in. I do think there's a good chance it will be over \$100 million, and in that case we have to consider what are the opportunity costs of doing that particular bit of work compared to other work CTR or any other program is doing in the former Soviet Union, in Central Asia, or in any of the other places we're working.

But we will be able to -- we'll be able to talk more -- with more definition when we have a report back from the team.

SEN. CORNYN: Well, thank you. We look forward to you getting back with us on that.

And here again, I guess you raise in your answer the point that I was inquiring about initially. And given not limitless resources, how do we prioritize and focus? And as you say, the opportunity costs of participating or funding one program at perhaps the expense of others, and that continues to be a concern, and I know you are working hard on that. But that certainly is a concern I have, and one that I want to continue to stay in touch with you on.

General Cartwright, let me just ask you quickly, you noted that STRATCOM's focused on improving DOD capacity and increasing resources for WDMD -- WMD elimination and mitigation efforts, but I want to make sure that you have all the capabilities in terms of authorization for the department to carry out your mission. And where in future years do you see your budget requests going in terms of fulfilling that mission?

GEN. CARTWRIGHT: Thank you, Mr. Chairman.

My sense is that we have the resources and the authorities that we need to move forward on this mission, and move forward aggressively. If there is a point in the future that I would use a crystal ball to say where do I think maybe things are going to change, the area that probably is most vexsome right now technically is standoff detection, knowing what's coming to your border and being able to detect that in a technical sense with a degree of fidelity that you're not chasing false alarms on a regular basis, and that you can have a level of monitoring that is globally to understand what's going on in a global sense in these different processes.

The technical solutions right now tend to be point solutions. We can tell what's in this room, but 100 miles we don't have good capability of forecasting its movement. I think that's an area that we will come back to you and better understand the technical challenge, and where we ought to apply our dollars and cents to go after that challenge.

SEN. CORNYN: Thank you, General Cartwright. And I guess in light of recent events, we need to not only make sure we have the detection capability, but perhaps good identification so we know if people are indeed authorized to transport radioactive materials, for example.

Senator Reed.

SEN. REED: Well, thank you very much, Mr. Chairman.

Let me follow up that line of questioning, General Cartwright, with respect to the combating WMD mission. You responded to Senator Nelson that the Defense Threat Reduction Agency is the component commander. Could you elaborate? Do they report to you directly? And do they retain planning, budgeting and command-and-control responsibilities? How does it work?

GEN. CARTWRIGHT: Sir, they are by, by designation, a combat support agency within the Department of Defense, which creates a relationship between the chairman and the organization. And they have a charter and a set of missions. All of those missions are not necessarily associated with the mission of combating weapons of mass destruction. So in the department we have set up an arrangement that we've used for a lot of years where we take the director, in this case, and give him what we call dual hatting; in other words, he has two responsibilities.

So in the sense of combating weapons of mass destruction, he operates as a component for Strategic Command to provide those services in our charter to all of the regional combatant commanders as they need them, and to turn to me when there is competition for resources as the first level of let's see how we should prioritize resources, and then also to advocate for additional resources where it's appropriate. So that tends to be the relationship.SEN-DOD-DOE-NONPROLIF PAGE 43 03/29/2002 .STX

Inside the organization what we've tried to do is insert an element of military planning capability that was not there before to bring closer the skill set that's already resident in the Defense Threat Reduction Agency, and the skills necessary to service the regional combatant commanders in a timely fashion.

So there is a good articulation, and we don't have a separation. Oftentimes your ability to ask the right question is the key in crisis to know what's out there to help you. By bringing the planning skills into the organization, we get closer and draw that relationship closer, and that's at the heart of what we're trying to get accomplished.

SEN. REED: But you're still -- it's a work in progress?

GEN. CARTWRIGHT: It is.

SEN. REED: You're also -- on a day-to-day basis, they're responding to both CINCs, the chairman and yourself, and you're trying to get that more synchronized. Is that fair?

GEN. CARTWRIGHT: That's fair. In the synchronization or the integration of the process, a lot of what we're trying to do by bringing them into the STRATCOM portfolio, so to speak, is to avail them of a very direct and close relationship with things like intelligence, surveillance and reconnaissance so that, again, the partnership is much tighter to the extent that it's appropriate -- the information operations that we're responsible for, the missile defense operations -- so that you get a more holistic look at choices. And as customers, so to speak, the regional combatant commanders come in the door, they can expect not only a direct answer to maybe the wrong question, but the opportunity to find the right question and the right set of answers.

SEN. REED: What's STRATCOM's role in the Proliferation Security Initiative?

GEN. CARTWRIGHT: We work closely through DTRA and through the operational forces -- and again, this is why the planners are so critical -- along with our -- really our lead agency, State Department, to one, set the environment; and two, to provide when necessary the operational planning and execution skills that are necessary for a particular action.

SEN. REED: Have you exercised this function yet?

GEN. CARTWRIGHT: We have in the planning, and we have in the seminars and the objective setting and the training activities that go broadly across the world.

SEN. REED: But you have a -- what's the next step in exercising?

GEN. CARTWRIGHT: The next step in exercising, we have a set of exercises that are international in scope, led by State, that go through this summer and into next year, that are scheduled. And we are a key participant in providing those and interfacing with not only State, but with the other governments and their military organizations to ensure -- for instance, we talked about a Navy capability -- to ensure that that matches up so that if we arrive at a juncture where we are trying to interdict something, that we have all of the right rules, we know how to operate together, we know who's to talk to who. All of that gets laid out. That's part of the exercise and planning activity that we're trying to do.

SEN. REED: Special Operations Command, in the QDR, has been given similar responsibilities, at least closely allied. Can you talk about your link up with Special Operations Command, particularly going forward?

GEN. CARTWRIGHT: Yes, sir.

There is a very tight relationship between Special Operations Command and Strategic Command, particularly in the areas of the intelligence, surveillance and reconnaissance; in the area of combating weapons of mass destruction; the teams that we put together that have -- that have been called render safe, but have the skills of the explosive ordnance disposal people; the skills that are brought to the table by the Defense Threat Reduction Agency; bringing those together in a way that we can deploy those in a timeline that is appropriate, that we can figure out what the size and availability of those and know how many of these teams do we need, how robust do they have to be. All of those things seem to be growing over time. Where do we want to take these teams?

Those are the types of things that General Brown and I work on on a regular basis. Our staffs are linked both virtually and physically. And we come together at the Defense Threat Reduction Agency in that planning cell, and in the technical expertise that Dr. Tegnelia and his organization bring.

So it is a very close relationship. I will tell you that SOCOM is probably more focused on the execution side of this activity. We're trying to prepare the battlespace, make sure that they have the tools necessary, as we do for each of the regional combatant commanders.

SEN. REED: Can you comment briefly on the mission of the Global Innovation and Strategy Center?

GEN. CARTWRIGHT: Talked a little bit about that with Senator Nelson's question, but the idea here is that there are -- there emerge questions for which we often don't have answers. And in order to get the answers and get inside the decision cycles of an adversary who would operate with some limited knowledge of working our seams, we have established an opportunity to reach out to the commercial sector, both U.S. and abroad, and to the academic sector. And the idea here is, if I have a problem, is to grab the smartest and brightest people in the world and get them into -- my phrase -- a hot, sweaty pile, and not let them out until we have a potential answer.

SEN. REED: That's good enough. (Laughter.) We don't want to go any further with that -- (laughter).

Final point, question, Dr. Cartwright. In your testimony, you describe one of your key initiatives as improve and expand U.S. forces capabilities to locate, track and tag shipments of WMD. Could you provide some amplification there about what you're doing? And do you need additional resources to do this?

GEN. CARTWRIGHT: This is another very close partnership with Special Operations Command, because they work in this area and have worked in this area for a lot of years.

The acknowledgement here is that the finding and fixing part of this cycle is probably broader than just radiological activities; that this find-and-fixed activity and tag it, so you know where it is and you can keep track of it, probably expands to other vexing problems like mobile threats that we have, missiles, et cetera. And so the intent here is to broaden the activity, not to diminish or dilute what SOCOM is trying to accomplish, but to start to broaden it out and make it available to the other regional combatant commanders for a broader set of targets.

SEN. REED: And just a final point, and maybe just a very quick response. It seems to me that this function is intimately involved with the national intelligence capability. And what's your general sort of satisfaction level with the integration, with the new regime of intelligence in the United States?

GEN. CARTWRIGHT: I will tell you that what we are trying to do on the Department of Defense side is focus through STRATCOM to the director of National Intelligence and his organization a single portal, so to speak, where the needs are coming from one voice and one place that are aggregated from all the regions, not to cut anybody out but to get them correlated and collated in a way that the intelligence community can respond.

That is starting to create synergies that we were unable to realize before, because once we understand the problem and we can work at it together, many of these threats that we deal with today and we anticipate we'll deal with in the future operate in the seams of authorities.

And so, by having that single portal and being able to get it very tight and very close -- and essentially we will open a center here in the next month at Bolling Air Force Base in the DIA spaces that bring the DNI's

capabilities, along with DOD's capabilities, at least to a common floor for operations so that we can see each others' problems, look at the opportunities to solve them in a way that creates synergy rather than the old construct of need to know. And so, if you don't know the right question to ask, you don't necessarily get what you need.

SEN. REED: Thank you, General.

Thank you, Mr. Chairman.

SEN. CORNYN: Senator Clinton.

SEN. CLINTON: Thank you, Mr. Chairman.

I want to follow up on the line of questioning first by the chairman and then by Senator Reed. Mr. Paul, with respect to the cost of the U.S.-Russian disposal program, what is the approximate cost? What are we talking about when you say that the Russians won't do it the way we would prefer unless they're paid for it, and the international community may not want to bear the cost? What are we talking about in terms of dollars?

MR. PAUL: For the Russian program --

SEN. CLINTON: Right.

MR. PAUL: -- or the Russian side? I'm hesitant to quote an exact price from their recent validated base line. I think -- I'm thinking \$2.7 billion is what they're saying.

SEN. CLINTON: So we're talking about \$2.7 billion.

MR. PAUL: I believe so.

SEN. CLINTON: And where is the source of that money, if it comes internationally? I mean, who contributes to that \$2.7 billion?

MR. PAUL: I believe that France has made a pledge of a few hundred million dollars. I don't know the exact number. I can get --

SEN. CLINTON: Yeah, I'd like --

MR. PAUL: -- that to you. It's a few hundred million dollars, because the MOX technology is of French origin. I shouldn't say that's why, but there is a connection there. They actually have that technology. So France has made a commitment, if the fuel were MOX.

There are a few others who have not made firm commitments, I believe, but have said that if the project is -- if it goes forward, they would be interested in making discussions. I don't know exactly how much money has been firmly committed by the international community. It's something that I will get you.

(Consults staff.) It turns out I do know how much. (Laughter.)

SEN. CLINTON: Thank goodness for those people who sit behind us.

MR. PAUL: It turns out I'm told that we have pledges totaling \$844 million.

SEN. CLINTON: Will this be an issue for the president to raise at the G-8?

MR. PAUL: I think that it is. It's something that we've discussed anyway about having that be mentioned. And it is a matter -- nonproliferation cooperation is something that the president has mentioned in international fora in the past. I think this is an issue that the Russians will -- I don't know about MOX specifically, but nonproliferation efforts is something that I believe that Russia, as chair, will raise as well.

SEN. CLINTON: We might want to emphasize that, Mr. Chairman, because I think, you know, your questions really go to the heart of whether the single biggest threat, the one that we were most interested in trying to address over the last several years, will be addressed and finalized at some point. So maybe we could follow up on that.

MR. PAUL: I appreciate that thought, too, on the G-8 summit. I'll follow up with that. I'll also get you a breakdown of the \$844 (million) to tell you which countries have made those pledges.

SEN. CLINTON: I appreciate that, Mr. Paul.

Let me follow up on the line of questioning by Senator Reed. You know, when the panel describes the various entities that are now part of our threat reduction/nonproliferation strategy, it really does sound like alphabet soup. I mean, it sounds like there are lots and lots of cooks in the kitchen. And when everybody's in charge, nobody's in charge.

And I'm concerned about duplication. I'm concerned about gaps. And I think it would be useful to get a matrix that actually lays out who is responsible for what, how they interact, what shared lines of command there may or may not be. I very much appreciate the work that everyone is doing on this.

But, for example, Mr. Paul, not to pick on you, but the Department of Energy's global initiatives for proliferation prevent program is incredibly important to assure that WMD experts from various countries are redirected to peaceful jobs, don't end up in Iran or you name it at this point.

However, I'm also aware there's a Department of State program that is focused on the similar objective. Are these programs duplicative? Are they complementary? What mechanism is in place to ensure proper coordination? And this is just a tiny example of what I see as a very, you know, sort of broadly dispersed responsibility on the biggest threat we face.

MR. PAUL: That's a good question and a good point. They are complementary. But if you weren't on top of them day in and day out and making sure that you have good coordination and communication, they could stumble over themselves.

The programs for proliferation prevention and the complementary State program is something that this administration and the previous administration both supported, and it has been very successful. But there is the potential for them to stumble over each other. That hasn't happened. We've worked very well together using the State Department's centers, if you will, for collecting the technical capabilities.

And our piece, which is more deploying into the nuclear weapons facilities -- we reach out and we look for scientists, whether it be Russian scientists, former Soviet Union scientists, Libyan, Iraqi scientists, and we go out and try to link them up with peaceful uses, as I know you're familiar with this program. The State Department kind of maintains a clearing house of that.

But, quite frankly, you are making a very good point, that if you didn't communicate, if we didn't have such good relationship between our program and theirs, it could be difficult to manage.

SEN. CLINTON: I really appreciate that. And, as I say, maybe, Mr. Chairman, our staff could work with our witnesses and others to put forth that kind of matrix, because, you know, everyone gives lip service to the fact that this is the most dangerous threat we face. And there are lots of those cooks in the kitchen, and I just want to know who the chef is and sort of who the point person is. And, you know, it's in DOD. It's in State. It's on DOE. So it would be helpful, at least to me, if we could try to sort that out.

My final question -- it really would go to each of you, which is to add a layer of further complexity on this -- we do have the International Atomic Energy Agency. And the IAEA, you know, is responsible for promoting peaceful uses of nuclear technology and then ensuring, insofar as possible, that those technologies are not used to develop nuclear weapons. And it does so largely in its role as a watchdog.

Increasingly, the IAEA is playing a major international role. It frankly has credibility that sometimes we and our allies lack. It has access, as it now does, for example, to Iranian nuclear sites that, you know, we could only dream of. And I worry that we're not doing enough to bolster and support the IAEA and that there developed a kind of antagonistic relationship, for all the reasons we know.

So let me ask each of you, starting with Secretary Flory, is there more we could do to help bolster the IAEA by, for example, sending more U.S. personnel to Vienna or helping to provide technology or working better to coordinate with them? Because I think increasingly we're going to need an agency like that, given what is, I think, the appropriate warning or caution that Mr. Paul gave that we're on a fast march toward nuclear proliferation. And I wish we could do more to rein it in.

I think there are some things we could do. It may or may not be inevitable, but the fact is it's happening. So what do we do to really bolster the IAEA as a necessary component of our efforts to try to, you know, watch that and prevent it insofar as possible?

MR. FLORY: Senator, you raise a very good point. The IAEA plays an extremely important role. And after decades when it was there and frankly didn't get a lot of attention because things were kind of moving along, it came into world view first after the first Iraq war where it was learned how much Iraq had been able to accomplish while under IAEA scrutiny. And that led to the development of stronger safeguards by the IAEA, and most recently in the case of Iran.

In terms of resources and things like that, I think -- I don't know if I'm

allowed to do this, but I could take your question for the record vicariously on behalf of Bob Joseph, who was unable to be here.

SEN. CLINTON: (Laughs.)

MR. FLORY: I'm sure he'll appreciate my doing this. But State is the lead, and we'll obviously be happy to contribute to answering that question in any way we can. But since it's a diplomatic mission, they probably are the best people to pull together an answer on that.

I think what is tremendously important is that -- and this is, again, something where the State Department is in the lead for us -- is that the matter of Iran be handled successfully. And the IAEA has grappled with this under the leadership, for much of that time, of a particular group of members. But as you've mentioned, it's focused attention on the IAEA. And I think it's important for the overall -- for the internationally established safeguard network that the international system that we're working with be able to solve this problem.

SEN. CLINTON: Thank you.

General, do you have anything to add to that?

GEN. CARTWRIGHT: I would just say that there are certainly things that we can do in partnership. The obvious ones are training, standards, technical experts, and making sure that we're on a common sheet of music, so to speak, in advocating for those standards and, once they're accepted, then advocating globally for them.

Those are our critical pieces. There are also pieces that would probably, in another session, we ought to sit down and talk a little bit about what we could do to assist them in setting the conditions for their ability to do their job.

SEN. CLINTON: That would be very helpful. I'm sure that you've given thought to that, and it might be something that we could look at.

MR. PAUL: That's actually something that the president has focused on quite a bit -- increasing the funding for the IAEA, continuing to provide the technical basis and support that the IAEA and Secretary ElBaradei need.

Every one of the more than 200 nuclear weapons inspectors at the IAEA were trained at Los Alamos National Laboratory here in America, here within the National Nuclear Security Administration. We're very proud to continue to fund that training. They come here to learn how to do what they do to keep the world safe.

We've led the way to strengthen the agency's ability to detect nuclear proliferation. We instituted a successful effort to increase the safeguards budget. The United States of America is the single largest contributor to the budget of the IAEA. In fact, we are even a larger contributor by a percentage basis to the IAEA than we are to the U.N.

We provide a quarter -- there's 128 members of the International Atomic Energy Agency. We provide one-quarter of all the funding. We also provide a lot of -- on a rotational basis, a lot of our technical experts from our

national laboratories.

And with Ambassador Greg Schulte, recently sworn-in ambassador to the UNVIE, the U.N. mission there, along with our office, our DOE office there, we have engaged in an effort to increase the number of U.S.-origin persons and experts that go to the IAEA and work internally. It's something that I've spoken personally with Director ElBaradei about.

I have one deputy director general on his board who is American, who's actually the deputy director general for management for the IAEA, and I am in the process right now of increasing the number of technical experts that we send over there.

These are excellent points, and they're something -- they're things that we are working on on a day-to-day basis. And I think that it's a good testament to the leadership of the president, the leadership of Director ElBaradei. We've made some progress, but we can do more.

SEN. CLINTON: Thank you. Thank you very much, gentlemen.

Thank you, Mr. Chairman.

SEN. CORNYN: Thank you, Senator Clinton.

I, too, think it would be interesting to see that wire diagram.

SEN. CLINTON: Yeah.

SEN. CORNYN: It may be instructive for all of us.

Mr. Paul, the Megaports program is a Department of Energy nonproliferation program to install nuclear-detection equipment at major international seaports. Last Friday, March the 24th, a couple of newspapers ran articles alleging that, through the Megaports program, the United States was contracting with foreign companies to scan cargo for nuclear materials.

Could you please explain to us what the Megaports program is and how it operates in international seaports? If you would also tell us, what will be the role of private contractors in the Philippines, in the Bahamas and other countries where the Megaports program is being conducted? And finally, who will actually operate the radiation detection equipment, and how confident can we be that it will not be tampered with?

MR. PAUL: You can be very confident that the equipment and the material, the data stream that we get from it and the analysis of it, will not be tampered with.

Let me tell you a little bit about the Megaports program. It's a fantastic program. It's an opportunity for us to have an additional layer of defense and protection in order to detect the illicit trafficking of nuclear and radiological material through some of the major ports with the most through-put outside the United States, ports through which cargo would travel before it ultimately comes to a U.S. port.

We are currently up and running with our radiation detector equipment that we deploy in four ports. We have 10 this year that we are in construction

mode. We have another 35, 40 that we're in negotiations with right now. It's a program that works very much in tandem with the Department of Homeland Security's CSI or Container Security Initiative.

CSI has U.S. federal Customs agents on site at foreign ports who, through profiles, review manifests of cargo to identify containers, for example, that should have further review inspection and detector inspection.

What we do is we put equipment in these foreign ports. We train the operators. These are foreign port federal government operators. So, for example, we go into the Port of Bahamas and we train their customs officials, because it's their port, to operate and analyze the data that comes from a radiation detector, a gamma-ray detector and a neutron detector, that is in that port.

If a cargo container were to come through that portal and an alarm were to sound, that data goes to a central alarm station that is manned by a government official. It is a customs official from the host government, because obviously these are in foreign governments' ports.

I think what was stated in a newspaper, not exactly correctly, was there are contractors --

SEN. CORNYN: That would surprise me.

MR. PAUL: Yeah, I know. It's -- well, just to set the record straight, in the Bahamas and in all other Megaports ports, and in all future Megaports ports, the data is -- the equipment and the data collection is operated by a federal government agent from the host country.

Now, obviously we have to work out agreements with the port on the logistics and how the ports themselves are operated, so that, for example, if a port -- excuse me -- if a terminal is owned by a private company, we can't change the fact that a private company operates it. But our radiation detection equipment in there is not operated by that private company. It's not touched by that private company -- cannot be tampered with by that private company.

If it is tampered with, we get an immediate alarm, a signal. If it's defeated so that there is a break in the signal, we get an immediate alarm. We also have technologies that allow us to be very vigilant in this setting. I'll say that.SEN-DOD-DOE-NONPROLIF PAGE 56 03/29/2002 .STX

SEN. CORNYN: And could you tell us just -- and I would just note that we just got word that there is a 15-minute vote on the floor so we're going to be wrapping up here rather quickly. What is the role that U.S. government personnel play at those foreign ports?

MR. PAUL: In most of those foreign ports, the CSI program is already in place -- the Container Security Initiative -- where there is a U.S. federal customs official reviewing manifests. We typically go into a port with Megaports and add the detector capability at a port where there is already CSI and, therefore, already a U.S. federal customs official. In those instances, which is most all of them, if a Megaports alarm were to sound and a government official from the foreign port got that alarm, it is common that he would -- that person would contact his counterpart, the U.S. federal

customs official, there, but it's not a requirement. In the absence of a U.S. federal customs official, these -- they go straight to the embassy and then the embassy calls me or calls our office. But under no circumstances is a private company in control of that data, nor can they tamper with it.

SEN. CORNYN: Thank you.

Mr. Flory, this is my last question -- then I'll turn it over to Senator Reed -- has to do with the Cooperative Threat Reduction program. And notwithstanding the success that that has program has enjoyed, we see the CTR budget declining this year and it looks like CTR budget's slated to remain flat or even decline further over the five-year defense plan. This strikes me as kind of odd because we also have a request for a \$44.5 million supplemental for the Cooperative Threat Reduction program to fund accelerated security improvements at Russian warhead sites agreed to by President Bush and President Putin at the Bratislava summit, as has already been testified to.

Could you explain that? And in particular, there's been some discussion -- as I know you know -- about the use of supplementals to fund ongoing operations of the Department of Defense and why a supplemental is the appropriate way to go here as opposed to putting it in the baseline of the Department of Defense budget.

MR. FLORY: Mr. Chairman, in terms of the supplemental request, I don't know precisely the answer as to why that request came in as a supplemental. I suspect that it had to do with -- and this is a problem we have in many cases -- where the budget cycle is such a long, drawn-out process that sometimes things have changed and requirements have changed over time. We do -- we need the money to spend now in fiscal year '06. That's what's driving -- and the fact that it's part of a program that is specifically designed to accelerate a preexisting program that was supposed to have taken until 2012 and is now supposed to have taken until 2008.

With respect to this year's budget specifically -- you're right. Last year, it was, I think, about \$409 million. This year, we go down to 372 (million dollars). That reflected actually the program expectations at the time and, in particular, the fact that the assumptions driving the budget at the time the budget was put together assumed that there was going to be a drop off in funding for Shchuchye. Now, as I told you earlier, we have a delay in the Shchuchye project. We do not assume that that delay is going to transform into an additional financial requirement. Right now, we only know that it's going to take more time. If it were to turn out that more funding were required, we'd have to come back, but it's a function of the budget having been developed about a year ago and some of the problems only becoming manifest now.

SEN. CORNYN: Thank you.

Senator Reed.

SEN. REED: I just want to quickly follow up. You've mentioned Shchuchye, but I have a series of specific questions about delay, about potential budget authorities that might be necessary in the future and, you know, when live-agent production will be -- destruction I should say, not production; destruction. We're destroying; we're not producing. And let me send those

questions to you, Secretary Flory.

MR. FLORY: Absolutely.

SEN. REED: Thank you.

Thank you, Mr. Chairman.

SEN. CORNYN: Well, gentlemen, thank you very much for your testimony. As you can see, there's a lot of interest in what you do and in our country's security when it comes to proliferation, nonproliferation and counterproliferation and counterterrorism efforts. And we very much appreciate your service to our nation and your willingness to take on this challenge. We want to be supportive of those efforts. We want to know what resources and authority that you need in order to do your job even better.

The hearing will now conclude. But we'll leave the record open for 48 hours in case there are other members of this committee who would like to submit additional requests for information in writing.

Thank you very much.

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