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A PROGRESS REPORT ON 10 + 10 OVER 10

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BEFORE THE

COMMITTEE ON FOREIGN RELATIONS
UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

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WEDNESDAY, OCTOBER 9, 2002

U.S. SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.

The committee met, pursuant to notice, at 10:20 a.m., in room SD–419, Dirksen Senate Office Building, Hon. Joseph R. Biden, Jr. (chairman of the committee), presiding.

Present: Senators Biden, Bill Nelson, and Lugar.

The CHAIRMAN. The committee will come to order. I apologize for the brief delay.

In June of the last summer at a meeting in Canada, the heads of state of the G-8—the United States, Great Britain, France, Germany, Italy, Japan, Canada, and Russia—agreed to establish a Global Partnership Against the Spread of Weapons and Materials of Mass Destruction. Under this initiative, which has become known as "10 + 10 over 10," the United States and other members of the G-7 club of the advanced industrial democracies agreed to commit up to $20 billion in funding over the next 10 years to support specific projects in nonproliferation, disarmament, counterterrorism, and nuclear safety. These projects will initially focus on Russia, but they could expand to other nations, including other states of the former Soviet Union.

The United States appropriated approximately $1 billion in fiscal year 2002 on threat reduction efforts in the former Soviet Union, so it remains unclear whether the Global Partnership will result in additional U.S. funding above and beyond our current spending levels. At the very least, it may leverage increased funding on those important projects by our allies in Europe, Japan, and Canada.

The Global Partnership contains an agreement on a set of common guidelines to govern future nonproliferation projects. These include consensus on tax exemption, liability protection, and adequate access by donor representatives to work sites to ensure funds are being well spent, issues that have complicated previous international efforts in nonproliferation assistance to Russia. The announcement of this new Global Partnership pleased many of us who have been calling for a more focused international commitment to reduce the threat posed by weapons of mass destruction in the former Soviet Union, in particular.

We live in an age in which, as the President has put it, "The greatest threat to the U.S. national security is the danger that outlaw states or terrorist groups will acquire weapons of mass destruction for use against the United States and our allies." This concern is the principal reason why the U.S. Senate is now debating a reso-

lution to authorize the President of the United States to use force, if necessary, against Iraq. It is also why we must focus on the vast repository of nuclear, chemical, and possibly biological weapons that still exist in Russia today, more than a decade after the Soviet Union collapsed. Nothing, in my view, poses a more clear and present danger to our security. Our greatest concern remains that groups like al-Qaeda or states like Iraq will steal or illicitly purchase poorly guarded stocks of weapons of mass destruction in Russia.

Russia is committed to securing and destroying its excess weapons, but it needs help, financial and technical, to do so. Although the United States has provided billions of dollars in threat-reduction assistance to Russia, there remain, under varying conditions of security, roughly 1,000 metric tons of high enriched uranium, 40,000 metric tons of chemical weapons, including 2 million artillery shells containing nerve gas at one of Russia's facilities alone, and an unknown supply of biological pathogens.

Russia is making fitful progress in disarmament and dismantlement, but with military budgets of roughly $7 billion a year, it can only do so much without significant international assistance. The United States and our allies have fundamental responsibility to do all we can to help Russia destroy its excess weapons and better secure its remaining stocks.

The announcement of the G-8 Global Partnership was a significant achievement, in my view, but it was only a first step. We cannot allow this important international commitment to dissolve into empty words and failed implementation.

At the request of my colleague and the leader in this entire area, Senator Lugar, I called this hearing to examine how the United States plans to work with its allies in carrying out the terms of the G-8 Global Partnership. How will the existing nonproliferation programs in Russia be affected? Should we increase the current levels of U.S. assistance, or do we envision the Global Partnership only as a means to leverage greater contributions by our allies in Europe, Canada, and Japan? What role do we envision for "debt for nonproliferation" as a potential funding mechanism? And to what degree will the G-8 members coordinate assistance efforts? What benchmarks will we use in measuring progress in coming years for carrying out this commitment?

To help us answer these questions, we have today an impressive set of witnesses. First, the Honorable John R. Bolton, the Under Secretary of State for Arms Control and International Security Affairs, will provide the committee with an overview of the G-8 Global Partnership and the long-term U.S. vision for this agreement.

On the second panel, representatives from the Departments of State, Defense, and Energy will explain how the Global Partnership will affect existing U.S. programs and whether new avenues of cooperation may yet exist.

For the final panel, we are pleased to have distinguished outside witnesses to discuss how the Global Partnership is faring in Europe where outside experts recently held an important nonproliferation conference.

I will hold off for now on individual introductions of the witnesses of the last two panels. Before Mr. Bolton begins his statement, let me yield the floor to my colleague, Senator Lugar.

[The prepared statement of Senator Biden follows:]

PREPARED STATEMENT OF SENATOR JOSEPH R. BIDEN, JR.

In June, at their summit meeting in Kananaskis, Canada, the Heads of State of the G-8—the United States, Great Britain, France, Germany, Italy, Japan, Canada, and Russia—agreed to establish a Global Partnership against the Spread of Weapons and Materials of Mass Destruction.

Under this initiative, which has become known as "10 Plus 10 Over 10," the United States and other members of the G-7 club of advanced industrial democracies agreed to commit up to $20 billion in funding over the next ten years to support specific projects on non-proliferation, disarmament, counter-terrorism and nuclear safety. These projects will initially focus on Russia, but they could expand to other nations, including other states of the former Soviet Union.

The United States appropriated approximately $1 billion in FY 2002 on threat reduction efforts in the former Soviet Union. So, it remains unclear whether the Global Partnership will result in additional U.S. funding above and beyond our current spending levels. At the very least, it may leverage increased funding on those important projects by our allies in Europe, Japan, and Canada.

The Global Partnership contains an agreement on a set of common guidelines to govern future nonproliferation projects. These include consensus on tax exemption, liability protection, and adequate access by donor representatives to work sites to ensure funds are being well spent—issues that have complicated previous international efforts at nonproliferation assistance to Russia.

The announcement of this new Global Partnership pleased many of us who have been calling for a more focused international commitment to reduce the threat posed by weapons of mass destruction in the former Soviet Union in particular. We live in an age in which, as the President has put it, the greatest threat to U.S. national security is the danger that outlaw states or terrorist groups will acquire weapons of mass destruction for use against the United States and our allies.

This concern is the principal reason why the United States Senate is now debating a resolution to authorize the President of the United States to use force if necessary against Iraq.

It is also why we must focus on the vast repository of nuclear, chemical, and possibly biological weapons that still exists in Russia today, more than a decade after the Soviet Union collapsed.

Nothing poses a more clear and present danger to our security. Our greatest concern remains that groups like al-Qaeda or states like Iraq will steal or illicitly purchase poorly guarded stocks of weapons of mass destruction in Russia.

Russia is committed to securing and destroying its excess weapons. But it needs help—financial and technical—to do so.

Although the United States has provided billions of dollars in threat reduction assistance to Russia, there remain, under varying conditions of security, roughly 1000 metric tons of highly enriched uranium, 40,000 metric tons of chemical weapons, including two million artillery shells containing nerve gas at one of Russia's facilities alone, and an unknown supply of biological pathogens.

Russia is making fitful progress in dismantlement and disarmament, but with a military budget of roughly $7 billion per year, it can only do so much without significant international assistance.

The United States and our allies have a fundamental responsibility to do all we can to help Russia destroy its excess weapons and better secure its remaining stocks.

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At the request of my colleague and the leader in this entire area Senator Lugar, I called this hearing to examine how the United States plans to work with its allies in carrying out the terms of the G-8 Global Partnership.

- How will existing U.S. nonproliferation programs in Russia be affected?
- Should we increase current levels of U.S. assistance, or do we envision the Global Partnership only as a means to leverage greater contributions by our allies in Europe, Canada, and Japan?
- What role do we envision for debt for nonproliferation as a potential funding mechanism?

- To what degree will the G-8 members coordinate assistance efforts?
- What benchmarks will we use in measuring progress in coming years for carrying out these commitments?

To help us answer those questions, we have an impressive set of witnesses today. First, the Honorable John R. Bolton, the Under Secretary of State for Arms Control and International Security Affairs, will provide the committee with an overview of the G-8 Global Partnership and the long-term U.S. vision for this agreement.

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But before Mr. Bolton begins his statement, let me yield the floor to my colleague Senator Lugar.

Senator LUGAR. Thank you very much, Mr. Chairman. I thank you, personally, for having this hearing and for your own enthusiasm on this subject.

President Bush has enumerated Iraq's violations of U.N. Security Council resolutions. He has also outlined in detail the risks of failing to enforce those resolutions. As the President, Congress, and the Nation focus increasing attention on Iraq, it is important we not lose sight of the purpose of this debate.

Underlying American and international concern with Iraq is the fact that Saddam Hussein possesses chemical and biological weapons and is aggressively pursuing nuclear weapons. The possibility that he may transfer such weapons to terrorists or use such weapons to blackmail the United States and our allies is substantial if no action is taken. Iraq is, indeed, an acute problem, but it is one proliferation problem among many. We must pursue the containment and elimination of weapons of mass destruction on a global basis with the same intensity that has characterized our debates on Iraq.

The purpose of this hearing is to look beyond Iraq to achieve better perspective on the broader problem of keeping weapons of mass destruction out of the hands of terrorists. For almost 11 years, the United States has been engaged in efforts, through the Cooperative Threat Reduction Nunn-Lugar program to address proliferation in its most likely source, the former Soviet Union. Those efforts have been highly successful, with approximately 6,000 nuclear warheads destroyed along with hundreds of bombers, missiles, and submarines. The program has facilitated the transfer of all nuclear weapons out of Ukraine, Kazakhstan, and Belarus. It's employing tens of thousands of Russian weapons scientists so they are less tempted to sell their knowledge to the highest bidder. The program has also made strides toward protecting and safeguarding nuclear warheads, biological weapon laboratories, and chemical-weapons stockpiles. We have come further than many thought we could, but much more needs to be done, and it needs to be done quickly.

Eleven years ago, when the Nunn-Lugar program was conceived, the terrorist threat was real, but vague. Now we live in an era where catastrophic terrorism, using weapons of mass destruction, is our foremost security concern. We must not only accelerate weapons dismantlement in Russia, we must broaden our capability to address proliferation risks in other countries and attempt to

build a global coalition against the proliferation of weapons of mass destruction.

Today, we will discuss one of the most promising vehicles to achieve such a result. On June 27, 2002, leaders of the G-8 member states, attending a summit meeting in Canada, agreed to form and participate in a global partnership against the spread of weapons and materials of mass destruction, also known as "10 + 10 over 10." The goal of the initiative was to increase international efforts to eliminate the threat posed by the proliferation of weapons of mass destruction from the states of the former Soviet Union. I would add that such a coalition could be expanded to address proliferation threats around the globe.

Under this new G-8 agreement, the United States pledged to spend at least $10 billion, and the other members states agreed to match this commitment over the next 10 years. The focus will be on nonproliferation, disarmament, counterterrorism, nuclear safety, and containing environmental damage. In effect, 10 + 10 over 10 will double the resources currently being expended in these areas.

Still, the future of the G-8 initiative is not assured. Many of our international partners will find it difficult to increase nonproliferation funding in a period of stagnating domestic economies. And equally difficult will be ensuring Russia's willingness to extend full audit rights and exemptions from taxes and liability to nations other than the United States.

After visiting several G-8 capitals and meeting with their leaders, I have come to the conclusion that the 10 + 10 over 10 initiative will be successful only if the United States leads this effort vigorously. I understand that administration officials, including several testifying before the committee today, recently returned from a 10 + 10 over 10 meeting in Ottawa. I'm hopeful they will be able to report on their progress.

Notwithstanding G-8 coordination and organization issues, it is clear that the United States will have to continue to press Russian officials to abide by President Putin's commitments at the summit. President Putin has committed Russia to a path that will provide the international community with another effective tool to combat the threat of proliferation of weapons of mass destruction. But, as we have learned in other fora, President's Putin's biggest obstacle could be his own governmental bureaucracy.

Over the August recess, I visited several Nunn-Lugar dismantlement sites and met with Russian leaders on nonproliferation issues. I found our Russian counterparts eager to discuss the 10 + 10 over 10 initiative. Shipyard directors, former biological weapon facility directors, and military commanders looked forward to the opportunities that will be provided by the G-8 agreement. Likewise, interest in this initiative is keen in some European capitals. Great Britain is already moving forward to set aside as much as $750 million for the 10 + 10 over 10.

And Norway, although not a G-8 country, has been a leader in working with the Russians to address the security and environmental problems posed by Russia's decaying nuclear fleet. Our own experience with Norway and Russia in the trilateral Arctic Military Environmental Cooperation program, AMEC, may provide instruc-

tions for integrating G-8's nations into a broader dismantlement effort.

Russian Defense Minister Ivanov has already identified a number of nonstrategic items for which Russia will request destruction assistance because of the potential threat they pose and the costs associated with their maintenance. But interest alone is insufficient. President Putin has committed to provide G-8 member states with the umbrella legal agreements necessary to permit the initiative to go forward. But perhaps more importantly, the government bureaucracies of the Russia, the United States and other G-8 states must be committed to the program's success.

I commend the Bush administration for efforts to win allied and Russian support for the G-8 weapons of mass destruction initiative, but there is hard work ahead of us. Each of you have been provided with a copy of my own top 10 list. And, in my opinion, this should be a guide that directs the United States in G-8 spending over the next several years. This top 10 list is an effort to assist the administration in setting out goals of 10 + 10 over 10, as well as the Nunn-Lugar program and its partner programs at the departments of State and Energy.

I thank you again, Mr. Chairman, for this important forum.

[The prepared statement of Senator Lugar follows:]

PREPARED STATEMENT OF SENATOR RICHARD G. LUGAR

INTRODUCTION

President Bush has enumerated Iraq's violations of U.N. Security Council resolutions. He also has outlined in detail the risks of failing to enforce those resolutions.

As the President, Congress, and the nation focus increasing attention on Iraq, it is important that we not lose sight of the purposes of this debate. Underlying American and international concerns with Iraq is the fact that Saddam Hussein possesses chemical and biological weapons and is aggressively pursuing nuclear weapons. The possibility that he may transfer such weapons to terrorists or use such weapons to blackmail the United States and our allies is substantial if no action is taken.

Iraq is indeed an acute problem, but it is one proliferation problem among many. We must pursue the containment and elimination of weapons of mass destruction on a global basis with the same intensity that has characterized our debate on Iraq. The purpose of this hearing is to look beyond Iraq to achieve better perspective on the broader problem of keeping weapons of mass destruction out of the hands of terrorists.

For almost eleven years the United States has been engaged in efforts through the Nunn-Lugar program to address proliferation at its most likely source: the former Soviet Union. These efforts have been highly successful, with approximately 6,000 nuclear warheads destroyed, along with hundreds of bombers, missiles, and submarines. The program has facilitated the transfer of all nuclear weapons out of Ukraine, Kazakstan, and Belarus. It is employing tens of thousands of Russian weapons scientists so they are not tempted to sell their knowledge to the highest bidder. The program has also made strides toward protecting and safeguarding nuclear warheads, biological weapons laboratories, and chemical weapons stockpiles.

We have come further than many thought that we could, but much more needs to be done, and it needs to be done quickly. Eleven years ago when the Nunn-Lugar program was conceived, the terrorist threat was real, but vague. Now we live in an era when catastrophic terrorism using weapons of mass destruction is our foremost security concern. We must not only accelerate weapons dismantlement efforts in Russia, we must broaden our capability to address proliferation risks in other countries and attempt to build a global coalition against the proliferation of weapons of mass destruction.

Today we will discuss one of the most promising vehicles to achieve such a result. On June 27, 2002, leaders of G-8 member states attending a summit meeting in Canada, agreed to form and participate in a Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, also known as "10 + 10 over 10." The goal of the initiative is to increase international efforts to eliminate the threat

posed by the proliferation of weapons of mass destruction from the states of the former Soviet Union. I would add that such a coalition could be expanded to address proliferation threats around the globe.

SENATOR LUGAR'S "TOP TEN"

1. Chemical Weapons Destruction

- Two million rounds of chemical shells and warheads await destruction at Shchuch'ye.
- Chemical weapons are also stored at six other sites awaiting destruction: Kizner, Pochep, Leonidovka, Gorny, Maradyokvsky, Kambarka.
- Russia is falling far behind their commitments under the CWC.

2. Securing Biological Pathogens

- Russia has refused to grant access to four closed military institutes: Kirov 200, Yekaterinburg (formerly Sverdlovsk), Sergeyev Possad, Military Medicine Institute at St. Petersburg.

3. Tactical Nuclear Weapons Elimination and Secure Storage

- Tactical nuclear weapons are more portable, less secure, and deployed closer to potential flashpoints than strategic systems.

4. Engagement of former Weapons Scientists and Engineers

- ISTC and IPP programs engage tens of thousands of former weapons scientists.
- A successful end-game must include American corporate investment or purchase of Russian laboratories.

5. Material Protection, Control & Accounting Programs

- Only 40% of the facilities housing nuclear materials in Russia have received security improvements and only half of these have received complete security systems.

6. Radioactive Sources (Radioisotope Thermal Generators)

- The Soviet Union manufactured RTGs to supply power at remote sites.
- These generators pose a proliferation threat and are spread all over the states of the former Soviet Union.

7. Shutdown of Plutonium Producing Reactors

- Three nuclear reactors produce 1.5 metric tons of weapons-grade plutonium each year.
- Russia has agreed to shut down the reactors if replacement power sources are built.

8. Plutonium Disposition

- The U.S. and Russia have agreed to eliminate 34 tons of plutonium by fabricating it into MOX fuel that will be irradiated in commercial nuclear reactors.
- Disposition will require sizable up-front costs to construct required facilities.

9. Dismantlement of Non-Strategic Submarines

- Nunn-Lugar can only dismantle strategic submarines, but non-strategic subs are also a threat because some carry cruise missiles and others have highly-enriched nuclear fuels which are a proliferation threat.

10. Reactor Safety

- Converting reactors that utilize HEU to lower enriched fuels and safely storing spent fuel. (Concerns in Georgia led to Operation Auburn Endeavor, a classified mission to remove weapons-grade nuclear material from a dangerous situation.)

SHUTDOWN OF PLUTONIUM PRODUCING REACTORS

There are three nuclear reactors in Siberia that produce 1.5 metric tons of weapons-grade plutonium as a natural byproduct of their operation. Russia will not shutdown these reactors until replacement power sources are available because the reactors are the sole source of power and heat in the region. As we continue to safeguard and eliminate nuclear material in Russia we must also take steps to ensure that no additional weapons-grade material is created. This must be started immediately.

PLUTONIUM DISPOSITION

The U.S. and Russia have agreed to dispose of 34 metric tons of weapons-grade plutonium. Both sides will fabricate the material into mixed oxide fuel that will be

irradiated in commercial nuclear reactors. The processes, on both sides, will require significant investments in new facilities that will be needed to fabricate the fuel. An estimated $2 billion will be needed to build and implement the Russian effort.

NON-STRATEGIC SUBMARINES

Each time I visit Russian shipyards I'm startled by the enormity of the task that lies before us in the area of submarine dismantlement. Nunn-Lugar is limited to dismantling strategic missile submarines. This is a mistake. There are important non-proliferation and security benefits to the timely dismantlement of conventional submarines. Many carry cruise missiles which could prove valuable to rogue nation missile programs. Other submarines, such as the Alfa attack submarine, is powered by nuclear fuel enriched to very high levels which could pose serious proliferation risks if unsecured.

REACTOR SAFETY

The United States and our allies must work together with Russia and other states of the former Soviet Union and elsewhere to convert reactors that currently use weapons-grade material to a lower fuel level. Potential threats stemming from these kinds of reactors are not hypothetical. Operation Auburn Endeavor was launched to take material from a Georgian reactor to safekeeping.

The CHAIRMAN. Thank you, Senator, for your leadership.

Secretary Bolton, the floor is yours.

STATEMENT OF HON. JOHN R. BOLTON, UNDER SECRETARY OF STATE FOR ARMS CONTROL AND INTERNATIONAL SECURITY AFFAIRS, DEPARTMENT OF STATE, WASHINGTON, DC

Mr. BOLTON. Thank you very much, Mr. Chairman. I appreciate you and Senator Lugar taking the initiative in calling the hearing. I have a prepared statement, which I'd just ask be submitted for the record, and I'll try and summarize the——

The CHAIRMAN. The entire statement will be placed in the record.

Mr. BOLTON. We have tried to address in there several of the important questions that you raised in your letter of invitation.

The subject of Russian proliferation and the threat of proliferation from its existing stocks of weapons of mass destruction has been one of the three main areas of concentration for the administration in the elaboration of our new strategic framework with Russia. We were concerned and remain concerned with questions of strategic offensive weapons and strategic defensive weapons.

On defensive weapons, we tried extensively to work with the Russians to find a way that we could mutually move beyond the ABM Treaty, but being unsuccessful in that, we announced our withdrawal from the treaty, which has now become effective. We are beginning to have exchanges with the Russians on the subject of cooperation in the missile defense field.

On the subject of strategic offensive weapons, the committee is familiar with the Moscow Treaty, which is pending before it, which codifies the decisions of both sides to reduce their operationally deployed strategic nuclear warheads from their present levels to a range of between 1,700 and 2,200 over a 10-year period.

We appreciate the work, Mr. Chairman, that the committee has done to move the treaty toward Senate consideration, and we remain very hopeful that it will be possible to do that before the Senate adjourns for this session.

The third critical element, as I mentioned, is the subject of proliferation.

The CHAIRMAN. I should note—if you don't mind me interrupting you; I do apologize for this—it is our intention to try to do that. But, for the press here, it should be known that I know of no outright opposition to that treaty. I don't know when we're leaving, whether that is next week or later, and we may not get it done by then. We may have a lameduck session. It would be my intention to bring it up in a lameduck session to get it finished if we, in fact, have a lameduck session. And if that is not the case, if I am reelected, whether I am ranking member assisting the chairman or the chairman, I think we could both say we'd be prepared to move it immediately. So I just want the message to go out that there is no delay related to opposition to this treaty.

Anyway, I'm sorry for the interruption, but I think it's important, because a lot of people have been asking, and that's why I interrupted you.

Mr. BOLTON. Right. You'll permit me, then, to digress to say that the Russian Federation, of course, is looking at its schedule, and the Duma, as well. Their most recent prediction, which is no more perfect than our predictions, is that they would be able to bring it to the State Duma probably in late October, early November, although that remains a target, as well. In any event, the ratification by both parties of the Treaty of Moscow would be an important step forward.

But on proliferation, there are really two aspects of our concern with Russia, the first being what they continue to do in terms of outward proliferation activity. I think the committee is familiar with our extensive consultations, from the Presidential level on down, with the Russians to try to get them to reduce the flow of technology and materials to countries like Iran and Syria and others in the field of nuclear weapons cooperation, ballistic missile technology, and others, to avoid the existing Russian programs being a source of support for proliferation by these rogue states.

But the other aspect, and really the centerpiece of this hearing, is what to do about the existing stocks of weapons of mass destruction. On that point, obviously, our alpha and, at least up to this point, our omega, is the Nunn-Lugar program, beginning back in 1991. It has gone through a series of modifications. It's been expanded, not only from work at DOD, but to the other departments which you've mentioned and which you'll hear about in more detail.

The administration conducted a review of the wide range of programs going on in all of those departments, concluding last year with, I think, an extremely positive assessment of the work that had been conducted over the past 9 years and which resulted, as you have indicated, in a request for funding last year and this year in the range of about 1 billion U.S. dollars.

But it was clear from our review of the programs and from the extensive travels and discussions that Senator Lugar and others on the committee have made that the amount of activity that could be conducted in Russia and the other states of the former Soviet Union was substantially in excess of our available resources. And I think the need and the importance of addressing these problems was certainly highlighted by the events of September 11, and the risk of what terrorist organizations would do if they were able to get their hands on weapons of mass destruction, whether through

acquisition of the requisite technology or whether through getting the weapons and delivery systems themselves.

So building on thoughts that many had, President Bush took the lead in working with G-8 colleagues to come up with the 10 + 10 over 10 program, in effect to achieve close to a doubling of the international resources available for work in the former Soviet Union on these kinds of programs. And that, as you've said, was successfully negotiated and announced by the leaders at Kananaskis.

I do want to say we owe a particular debt to Canada, the host of this year's G-8 Summit, because, without their work, I think we would not have come as far as we did.

The commitments that we have so far from the other G-8 members don't quite get us to the "plus 10" that we're looking for, and work remains to be done on that subject. And it was one of the principal subjects of conversation at our first followup meeting to Kananaskis, which took place a couple of weeks ago in Ottawa.

One, I think, very important development that emerged from that meeting was that the French, who take over as G-8 Chairman for the year 2003, followed up on a speech that President Chirac made, where he underlined the importance of 10 + 10, or the Global Partnership, as we call it in the G-8 context, and made it clear that that would be a priority for the Government of France during their Presidency.

I think it's also important that we are actively seeking non-G-8 participation in funding of these programs in the former Soviet Union. Senator Lugar, as you mentioned, Norway is a good example. We think the Nordic states, in general, because of their concern for nuclear and other military activities in their region around the Port of Murmansk, in the Kaliningrad enclave, and other areas may well be quite interested in participating.

I can say, from my own experience at Kananaskis, that getting this agreement was not easy. I fully support what both Senators have said about this being a good beginning, but a lot of work remains. There's just no question about it. And one of the things that we have been working on in particular, along with getting the other G-7 members to get large pledges on the table and to get nonmembers to participate, is working with the Russians to get them to do what they must do to support the activities and to help those of us in the G-7 and elsewhere in getting the amount of resources that we need.

There are two aspects to this with respect to Russian performance. One is Russian financial contribution. It is the case here in Congress, it is the case, our G-7 partners have told us, in other parliaments, that elected officials want to know not only what they're going to contribute to the elimination of Russia's weapons of mass destruction, but what the Russians are going to contribute to it. And that remains a subject that we're in close consultation with the Russian Government on to make sure that their financial commitment and support is adequate to the task at hand.

In that connection, we have been in the forefront among G-7 countries in considering the option of debt-for-program swaps, whereby existing official Russian debt could be converted or utilized in ways that provide additional resources inside Russia. We're

considering now exactly how to implement that. We appreciate your work here in the committee and in Congress to get the authorizing authority for that adopted, and we intend to pursue it. It's not a subject that carries a lot of favor with some of our other G-7 partners, those that have heavier official debt than we do with the Russians. But it's something that may well require our leadership and experimentation, and we're certainly working away on it.

The second aspect, though, of Russian involvement is more troubling. I must say this was an area that we spent a considerable amount of time on in Ottawa. As you know, we have been operating for most of the past 10 years under an umbrella agreement that was negotiated with the Russian Federation at the beginning of the Nunn-Lugar program. That agreement expired. It's now up for Duma reconsideration. And it has all of the protections that both you Senators have enumerated, in terms of liability protection, transparency, audit and access rights.

The Government of Russia has expressed a number of concerns about the provisions of that agreement on liability insurance in a nuclear context, and on a variety of other things. And we're going to be working closely with the Government of Russia to ensure that the political commitment is there to get the Duma to ratify this extension without crippling amendments or reservations.

I think our feeling is that if we are able to get the umbrella agreement ratified, the extension of the umbrella agreement ratified, that we can clear the way for the other members of the G-8 to participate. And that, frankly, was one of the things most on our mind when we began to organize this and looked at ways that we could coordinate with other G-7 members.

Alone, they could not solve the problems that they had encountered. And I'll just give you one example. The Japanese have a substantial interest in the dismantlement of general purpose nuclear submarines, and they had appropriated and actually expended a certain amount of money on that subject. But, over the years, they've run into enormous difficulties in gaining access to the facilities where the submarines would be dismantled. They didn't feel there was adequate coordination among the different Russian ministries involved. And so the project has been basically on dead stop for a number of years.

The Japanese argued, I think, persuasively to us, that they're not in a position to contribute more money to the Global Partnership until they've resolved these difficulties on implementation that they've already run into. And I think you will find this a persuasive point. They said their Diet members would say to them, "Why should we appropriate new money for you when you haven't even spent the money we've already appropriated?"

So that, to us, was a signal that we had to work with the other G-7 members and get through the, what sounds like the mundane business of these agreements and protections for liability, but which are, in fact, show stoppers for expansion of the program for all of the G-7 members, if they're not resolved.

Another major subject that we discussed at Kananaskis and in Ottawa was how to coordinate, how to assist each other, and how to make sure that others, particularly, could benefit from our experiences. That is something that I expect will take a lot of our time

and attention, as well as making sure that as the new contributions flow into the pot of the Global Partnership money, that they're expended in a coordinated fashion and that we're not duplicating or overlapping efforts.

Finally, let me just conclude by expressing our appreciation for the work that you've done on the question of waivers of the certification authority, both on the CTR program broadly and on the Shchuch'ye chemical weapons facility. This has been something that you've taken the lead on here, both Senators have. And we're hoping that those will be adopted, perhaps at the same time the Moscow Treaty is considered, or even before, that we can get that waiver authority and proceed with exercising it to begin, to continue funding those programs.

That's a very general overview of where we are. I know, in your opening statements, both of you were concerned, and I think importantly so, with the implementation of the G-8 Global Partnership. It is something that we are committed to working on, because we don't want to come to the Evian Summit in France next summer and find that we're in the same position that we were last year, that is to say with projects stopped, without new money being committed, without the expression of support and progress on the Russian side. And I think having this hearing will be very helpful in that regard.

I'd be pleased to answer any questions you may have.

[The prepared statement of Mr. Bolton follows:]

PREPARED STATEMENT OF HON. JOHN R. BOLTON, UNDER SECRETARY OF STATE FOR ARMS CONTROL AND INTERNATIONAL SECURITY, DEPARTMENT OF STATE

Mr. Chairman, Senator Helms, Senator Lugar, distinguished members of the Committee, I'm pleased to appear before you to discuss the new G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction and the Administration's plans to implement that initiative. Over the past decade, this Committee and its members have been strong advocates of nonproliferation and threat reduction cooperation programs with Russia and other former Soviet states, while at the same time demanding that the programs fulfill their mandate.

Let me begin by putting that initiative within the larger context of the changed international security situation and the U.S.-Russian relationship. From the beginning of the Administration, President Bush has worked with President Putin to forge a New Strategic Framework for a cooperative relationship with Russia that deals with the security problems we face in the post-Cold War world.

The first element of the new framework involved issues of strategic defense and the Anti-Ballistic Missile Treaty. Signed in 1972, the ABM Treaty posed fundamental problems to our need to defend against a growing missile threat from rogue states intent on acquiring weapons of mass destruction and the missiles to deliver them—a threat that did not exist when the ABM Treaty was written. The Treaty prevented us from defending our country and our friends and allies from missile attacks, and hampered the development of partnership and cooperation with Russia. This phase of our work came to a conclusion with the announcement in December 2001 of our decision to withdraw from the ABM Treaty.

That opened the way to an intensive effort on the second element of the New Strategic Framework, substantial reductions in strategic offensive weapons. Starting during the presidential election, Governor Bush had promised to reduce such weapons to the lowest level possible consistent with our national security. Through the 2001 nuclear posture review, and embodied in the Treaty of Moscow signed in May, we have decided to reduce operationally deployed strategic nuclear warheads over the next 10 years to between 1,700 and 2,200. We are pleased that the Committee has completed its hearings on the Moscow Treaty, and look forward to action on the Treaty before the Senate adjourns.

Success in the strategic offensive and defensive fields now allows us to focus our attention with Russia on the third critical element of the New Strategic Framework, nonproliferation. One critical aspect of our nonproliferation work with Russia is the

assistance program launched in 1991 by the Nunn-Lugar legislation. Last year the Administration reviewed U.S. nonproliferation and threat reduction programs and concluded that, with a few adjustments, they were effective and should be continued. The Global Partnership that is the subject of today's hearing represents a broadening of this program to encompass other G8 members.

Before turning to the Global Partnership, however, I'd like to note the second element of our nonproliferation effort with Russia: ensuring that WMD and their delivery systems, related materials and technology do not flow from Russia to other countries. We remain very concerned that the nuclear and missile programs of Iran and others, including Syria, continue to receive the benefits of Russian technology and expertise. President Bush has raised this issue with President Putin at their meetings in Moscow and Kananaskis and in their correspondence. Secretary Powell, Secretary Rumsfeld and Secretary Abraham have addressed this problem at length with their Russian counterparts, and we continue to press this issue.

Iran is seeking all elements of a nuclear fuel cycle, from mining uranium to enrichment to production of reactor fuel. There is no economic justification for this effort, given Russia's commitment to supply all the fuel for the Bushehr reactor, not to mention Iran's abundant supplies of energy in the form of oil and gas. The inescapable conclusion is that Iran is building a nuclear fuel cycle to support a nuclear weapons program. Equally worrisome is Iran's long-range missile program. They have developed and tested a 1300 kilometer range missile, the Shahab 3, based on North Korean technology, and are pursing longer range missiles that could threaten Europe, Russia, and eventually the United States.

Concerns about Russia's performance on its arms control and non-proliferation commitments have already adversely affected important bilateral efforts, and unless resolved could pose a threat to new initiatives including the Global Partnership.

Having established the overall context of the New Strategic Framework, let me turn to the Global Partnership. In the aftermath of September 11, the United States not only elaborated the New Strategic Framework with Russia, but also intensified dialogue with other allies regarding the need to expand and accelerate efforts to address nonproliferation and threat reduction goals, especially in Russia and other former Soviet states. As a result of these discussions, the President early this year proposed to the Group of Eight the "10 plus 10 over 10" initiative—commitments of $10 billion from the United States would be matched by $10 billion from the other G8 for nonproliferation cooperation for Russia and other former Soviet states over the next ten years.

After several months of intense work by G8 officials, G8 Leaders (the United States, Canada, France, Germany, Italy, Japan, Russia, and the United Kingdom) launched the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction at the Kananaskis Summit in June. We owe a particular debt of gratitude to Canada, host of the Kananaskis Summit, for its tireless efforts to make the Global Partnership a reality. Under this initiative, the Leaders pledged to raise up to $20 billion over ten years to support specific cooperation projects, initially in Russia, to address nonproliferation, disarmament, counter-terrorism, and nuclear safety issues. The President has committed to provide half of this amount. The U.S. continues to believe that the nonproliferation concerns are paramount, and we will be pressing members to ensure that the most critical proliferation threats are addressed.

Among the priority concerns, the G8 specifically named destruction of chemical weapons, disposition of fissile materials, employment of former weapon scientists, and dismantlement of decommissioned nuclear submarines. The full scope of programs under the Partnership is much broader; in fact, U.S. nonproliferation and threat reduction programs implemented by the Departments of Defense, Energy, and State, Commerce, and Treasury (through the Customs Service) are all encompassed under the Partnership. My colleagues in the panel presentation will address these programs in more detail.

This initiative, a major achievement for the G8 and this Administration, represents a significant expansion of international commitment to provide financial resources address proliferation issues. The United States has pressed allies to provide such support since the U.S. launched the Nunn-Lugar programs in 1992. But while from FY1992 through FY2002 the U.S. Government has provided over $7 billion for security assistance to Russia and other former Soviet states, G7 members have contributed less than $1 billion. Under the Global Partnership, the G7 members' commitments should represent a fairer share of the responsibilities. From early indications from other G8 members, we are about halfway toward meeting the $10 billion target. At current exchange rates, Canada will contribute $650 million US; the UK, $750 million; Germany, $1.5 billion; the European Commission, $1 billion; and

Japan, initially, $200 million. Other pledges have not been publicly announced; and not all members have taken decisions on pledges.

In addition, we are pleased that under the French G8 presidency in 2003, the Global Partnership will continue to be a priority. In August remarks about the upcoming French presidency, President Chirac has announced that "all the necessary impetus will be given to this programme's implementation."

But participation in the Global Partnership will not be limited to the G8. The Global Partnership statement invited other countries "that are prepared to adopt its common principles and guidelines to enter into discussions on participating in and contributing to this initiative." Other countries are already making valuable contributions; Sweden, Norway and the Netherlands are examples. The Senior Officials will be addressing outreach strategies in more detail at their next meeting, but have agreed to take advantage of bilateral and multilateral opportunities to inform other countries and encourage their participation. One such opportunity will be the Nonproliferation and Disarmament Cooperation (NDCI) Conference on nonproliferation cooperation with Russia and Eurasian states in Brussels on December 16-17, 2003. The European Union, Canada, and the U.S. are sponsoring this multilateral conference of experts from current and potential donor and recipient countries to discuss implementation and coordination of new programs as well as new projects to meet outstanding needs.

From my personal involvement in negotiating this initiative I can attest that getting to agreement at Kananaskis was not an easy task. Many G8 members have experienced serious difficulties in implementing their nonproliferation cooperation commitments with Russia. Some have been unable to conclude government-to-government implementing agreements because of inability to reach agreement with Russia on adequate provisions for liability protections, exemption from taxation, access to work sites, and other conditions. Program delays due to poor coordination within the Russian Government and among federal, regional, and local entities have been another concern. Millions of dollars previously committed by G8 members remain unexpended at present due to these problems, and G8 members will have difficulty committing new funds if these difficulties persist. In response to these difficulties, we negotiated Guidelines for New or Expanded Cooperation Projects, which outline basic elements to be incorporated into legal frameworks for implementation. For the new Global Partnership to be successful, the Russian Federation will need to take concrete actions to resolve outstanding problems.

On September 26-27 in Ottawa, I attended the G8 Senior Officials first meeting following the Summit to discuss concrete implementation of the Kananaskis commitments. A major part of the meeting was devoted to the implementation problems, and we pressed the Russians hard on this issue. The Senior Officials agreed that we should continue to meet to provide the coordinating mechanism called for by the Leaders. This welcome development will help ensure high-level attention on any areas of difficulty. We have already planned another meeting before the end of the calendar year to engage further on implementation guidelines, projects for cooperation, and outreach to countries beyond the G8.

It came as welcome news that G8 governments are engaged in implementing the Global Partnership; establishing interagency coordination mechanism, identifying potential projects, and beginning to budget resources. With respect to contributions, not all members have made commitments. From initial indications some have shared current thinking on anticipated pledges; others have not yet been able to do so. For the Evian Summit, we intend to press to have total commitments reach the $20 billion goal.

The G8 as a group and individual members will be working on projects to be pursued. The Russian Federation has identified chemical weapons destruction and general-purpose nuclear submarine dismantlement as program priorities. Some members intend to contribute to cooperation in these areas; some have reiterated their commitments to support plutonium disposition. In addition, members will continue to address a range of other projects under the Partnership, including employment of former weapon scientists.

In general, G8 members, including the United States, intend to fund and implement cooperation projects of their choice on a bilateral basis under government-to-government agreements with the Russian Federation. We do not intend to establish a Global Partnership multilateral implementation mechanism or common fund. However, the G8 Senior Officials, as the coordinating mechanism, will address priorities, identify program gaps, and to prevent duplication and overlap.

Mr. Chairman, as I mentioned earlier, all current U.S. nonproliferation programs in the former Soviet Union are encompassed within the scope of the G8 Global Partnership and reflect U.S. plans to address the goals that are reflected in the Partnership. The Administration's FY03 request for these programs is about $1 billion. The

President has indicated that the U.S. will maintain this level of effort for a ten-year period. Of course, the President's annual budget request will include our specific requests by program based on need for that specific year, within the overall context of the Administration's budget priorities.

The U.S. programs have a significant role in shaping cooperation under the Global Partnership. We had already provided information on U.S. programs and noted projects where substantial resources are needed from others. We believe that this information has been useful to other G8 members as they consider how to direct resources. The Administration will of course continue to assess where and how our resources can be most usefully directed.

With respect to financing, the inclusion of authorities to reduce Russian Soviet-era debt in exchange for nonproliferation program spending by the Russian government in the recently passed Foreign Relations Authorization Act provides welcome flexibility to the Administration. I very much appreciate the Committee's role in enacting these provisions. The Administration is actively considering debt for nonproliferation program options, and we look forward to consulting with you on the outcome of these deliberations.

In closing, I'd like to express my appreciation for the support of this Committee for these critical national security concerns. We welcome the passage of the authorization of debt exchanges with Russia for nonproliferation projects. We are looking forward to completion of FY03 appropriations at the President's requested levels. There are two other provisions still under consideration in the Congress which are very important to the Administration's ability to meet our nonproliferation goals. First, we are seeking in the Defense Authorization bill Congressional approval of authority for the President to waive the annual certification requirement for Cooperative Threat Reduction and Freedom Support Act Title V funding when it is in the U.S. national security interest to do so. Second, we are seeking authority to waive the conditions for cooperation with Russia on construction of a chemical weapons destruction facility at Shchuch'ye. We hope that both these provisions can be passed before the Congress leaves for the fall elections.

The CHAIRMAN. Thank you very much, Mr. Secretary.

I have a very basic question. What is the operational mechanism for implementing this initiative? Who's in charge? Is there a committee of your counterparts in each of the other countries—a council, in effect? How, other than principals being involved, do we get from this commitment to actually having boots on the ground somewhere dismantling something that is categorized as a weapon of mass destruction? Mechanically, how does this happen?

Mr. BOLTON. We made a very basic decision before Kananaskis that each country would essentially run its own program. That is to say, we would not set up a new multilateral organization. We would not set up a bureaucracy to do it. We felt that each country knew best how to handle its own political system, knew best what its priorities were. Some, in the case of Japan, more concerned about nuclear submarines, others more concerned with chemical weapons, others more concerned with fissile material disposition.

Particularly for the countries that are relatively new, they have actually gone ahead, in many cases, Canada being a good example, and set up their own internal structures, appointed people to head this up, committed money in their budgets, and have gone to their parliaments seeking the requisite legislation. We've had representatives from several countries here looking at what we do to learn from our experience, to see where they might be interested in launching new programs, so that each country is responsible for getting the money and for its allocation and expenditure.

We will use the so-called "senior officials gathering" to coordinate, to gather information, to make sure that there is not duplication and overlap in this. I don't think, as an early matter, that's much of a concern, because the level of need is substantially higher

than the resources as they buildup. Some of the countries are going to have to start and get, ramp up to a higher level of expenditure. I think that's a prudent thing to do. They don't want to be in a position of not being able to tell their parliaments how the money is being spent.

But all of these countries have experience in programs of bilateral assistance, and, just as we did in the early years of Nunn-Lugar, drawing on that experience. We're working cooperatively with them since we have the largest program, and I think, so far, that's going fairly well.

The CHAIRMAN. So that again, to be very practical, the Canadian Government would contact the Russian Government and discuss specific, site-specific initiatives. Are the Canadians, for example, at liberty, under this agreement, to, in effect, set their own guidelines? Could they yield—I'm not suggesting they should—on some aspect of liability insurance or some other matter? Were the outlines of the agreement, relative to improper taxation, bureaucratic obstacles and the like, just meant as broad guidelines, or did we all agree, so none of us are out of sync with one another?

Mr. BOLTON. Yes, these are really bare minimums. In other words, these express what I think the contributing governments absolutely have to have in order to be able, confidently, to go to their parliaments.

The CHAIRMAN. Right.

Mr. BOLTON. They need to say, "We believe that we have adequate oversight and supervision over the expenditure of these funds."

I think what we did was, we exchanged our umbrella agreement and other agreements we had had. Other nations had their own agreements. We looked over them, and there is, I think, surprising agreement among the contributors, or potential contributors, that these protections that we've outlined in the guidelines are absolutely essential. I think it's hard to imagine a circumstance where a particularly important one would be omitted from any significant agreement.

The CHAIRMAN. To use a Washington word that my folks back home always are confused by, for good reason, do we think it's important that there be certain "benchmarks" of knowing who spent what for what? And how do we establish those? How do we know? Is it a year from now, when the next G-8 meeting occurs, that each contributing country reports what they committed, what they've spent, what action they've taken? Is that the effective benchmark, the yearly meetings?

Mr. BOLTON. The leaders tasked the Sherpas, and then, effectively, the people actually working in this senior officials group, to report to them and to report to each other for consideration at the next summit what they had done. And the Canadians, because this is still their year of leadership of the G-8, have begun to get that material pulled together. We've exchanged information before. We need to make it a little bit more regular so that we can start understanding different accounting systems and whatnot.

But we all know what the priorities are. We've discussed, and, at this most recent meeting in Ottawa, we discussed what the newer participants actually are beginning to focus on. And I am

confident that, by the time of the Canadian handover to the French at the end of this year, that we will have in place the requisite reporting mechanisms so that the countries can lay out in a more common system exactly what programs are involved. Because we have the most elaborate, most extensive programs, I think a lot of countries have looked at the kind of reporting and allocation that we've done, and are modeling much of what they've done on the way we've proceeded, taking into account that they have their own particular budgeting procedures, fiscal years, and the rest of it.

But we're not going to wait, in other words, until the summer of 2003. Work on accumulating that information has begun already.

The CHAIRMAN. My last question, before I turn it over to Senator Lugar is: What can the next Congress expect from the administration in terms of requests for this program? Is it "steady as she goes," a billion dollars next year, like this year? Are we talking about upping the ante ourselves? Is there a baseline that we're starting from that is a billion above what we, in fact, already have committed? Or is it that we're meeting an obligation, and this is just used to leverage outside assistance? How is it viewed in your administration?

Mr. BOLTON. The expectation had been that because we were at about a billion dollars of appropriations request a year, that it was foreseeable we could extend that out over a 10 year period, and that that was a substantial enough projection, at least, that we should go to the allies and say, "This is something that benefits us, to be sure, benefits you, as well, and that we'd like to see a more equitable burden sharing."

Over the life of Nunn-Lugar, up until last year, we had spent approximately $7 billion, and the other G-7 members had spent approximately $1 billion, so we were trying to move it up.

I don't think any of us believe that we can really project out 10 years, in budget terms, or maybe even 5 years, and I wouldn't rule out that we could look at other possibilities. But, on the other hand, what we said was 10 + 10. We didn't say 15 + 5. And I think it's important that we get the commitments, at least, that get us to the 10 + 10 level and then see how things are going inside Russia, look at their absorption capacity, look at how, for example, if we get the Shchuch'ye chemical weapons destruction facility up, how production is going. Is it ahead of schedule? Is it behind schedule? And these are things we would need to take into account.

But I think the commitment is certainly there to do this as expeditiously as we can.

The CHAIRMAN. Well, actually, I have one followup on that. What is the progress and status of Shchuch'ye right now, in terms of constructing the chemical destruction factory that we are building, that we are intending to build? Can you tell us what the status of that is?

Mr. BOLTON. Well, I think a certain amount of work on local infrastructure and so on has gone ahead. But in terms of the major construction, it awaits our appropriation. That was always the expectation, that we would have the lead on it. The Germans had the lead on Gorny. We had the lead on Shchuch'ye.

The CHAIRMAN. OK, thank you.

Senator Lugar.

Senator LUGAR. Thank you, Mr. Chairman.

Secretary Bolton, just picking up from that question because you have mentioned the waiver authority, and I appreciate the letter that National Security Director Condoleezza Rice wrote requesting a waiver authorization. I incorporated her views into an amendment that's in the Senate appropriation bill giving the President waiver authority with regard to congressional requirements. That doesn't mean that the President doesn't take those into consideration, but he has the ability to permit the destruction of chemical weapons might proceed. And, as you know, about $200 million or more has been spent at this facility. Now it's stymied because the funds cannot be obligated and expended.

Last week, in a visit to the White House, I asked Secretary Powell and Dr. Rice to weigh in once again. Both have reached out to Members of House and Senate conferees, which is ongoing, I believe, again today.

Last week, in a conversation with the President on the telephone, we continued our discussion on these important subjects. Our dislog began during a meeting Senator Biden and I had with the President about the Moscow Treaty in June. The President was very concerned about about the lack of progress on Nunn-Lugar. He referred to his commitment to President Putin to get on with the dismantlement.

I had a meeting with 15 Members of Congress this morning at breakfast, many of them on the House Armed Services Committee, who were relevant to both the appropriation and authorization situations. Participants indicated that the difficulty lies on the Republican side.

I passed out a Los Angeles Times editorial which condemned the House for its failure to support the Nunn-Lugar program. It is not the House. It is just a few Members who refuse to agree. And I don't know at what level we have to go. The President, the Secretary of State, Secretary Rumsfeld in his testimony before this committee and Dr. Rice on two occasions, have expressed their strong support for waiver authority. I have offered an amendment based on their request but the House has expressed strong opposition to permitting U.S. assistance for the destruction of chemical weapons in Russia.

I have visited Shchuch'ye on two occasions. I have returned with pictures of the dangerous weapons stored there. In one picture I am holding a briefcase easily holding an 85 mm shell filled with VX. There are 1.9 million shells and warheads ranging from 85 mm to Scud warheads all with sarin and VX. The Russians claim that each can kill 85,000 people in a stadium.

Now, I appreciate the fact that the appropriation level requested by the administration and the review of the programs was a very generous appraisal. The President was under the impression, when Senator Biden and I met with him in July, that things are on track, but they are not on track. As a matter of fact, not just the chemical weapon thing had been shut down at that point, but the whole program after a certification could not be made by the Secretary of State. And it was on that basis the administration asked for a permanent Presidential waiver. The Senate bill contains that. The House bill, as I understand, has a 3-year waiver.

But there has been no movement on that. So we had a hiatus during consideration of the supplemental appropriation for about 2 months. But finally things re-started. I was over in Russia. I saw everything getting going again, but it all stopped again as of October 1. Nothing. No new programs.

Now, the general public doesn't understand that. I don't understand it. But, nevertheless, that's the way it is. And we have two very significant conferences going, on authorization and appropriation.

So I plead with you and everybody in the administration to weigh in, because we can talk about all of this conceptually, we can appropriate the money for it, and we assure our allies that we're contributing the billion dollars for, but I'm here to tell you it has stopped. It has stopped because our own bureaucracy, our own congressional machinations, our own micromanagement at the staff level stops it.

Now, I've found that the Russians have the same problems. And when I visited with Minister Ivanov in Defense and we reviewed all the stymies that I had had during my Russian visits, including difficulty in getting into the Kirov 200, including their stiffing us on an anthrax strain they promised to send to us. He pledged to get into the bowels of the bureaucracy. He understands the gravity of the situation. The President of our country understands the gravity. But somewhere down in the bowels of the situation, the worker bees are trying to undermine all of this.

So it's tough work, and I appreciate that, and you are one of these that has to deal with this at all levels in your negotiations, and you've done so very well. But I make this plea at the outset, because I think it's relevant.

Now, I would also mention that you have discussed the possibility of other countries, in addition to the G-8, getting involved. this is very important, because they could and should. However, the success of the G-8 is, of course, of the essence in enticing others and giving some confidence that we have a structure.

As you pointed out an umbrella agreement is crucial to our success. Without the right protections on liability/taxation issues that we have continually had to wrestle with and which we have to wrestle with in behalf of out G-8 friends and others, the chances of success plummet. Norway and other nations are facing similar problems. So that's a problem, but hopefully not insuperable. President Putin, as you and others have testified, certainly pledged in Canada to go about this and presumably will try to make that happen.

My basic question is, can you develop a plan or a chart that illustrates the contributing countries, their monetary commitments over the next 10 years and the progress they will sponsor as a part of the existing threat. I understand that appropriations can't be guaranteed, governments change, but can we start applying allied commitments to the threats and dismantlement requirements. We could fill in ours, at least conceptually, $10 billion across the chart. And then you can drop down to Great Britain. As I have mentioned, their Under Secretary of Defense, the comparable one in their ministry, says $750 million. The French are still uncommitted, as far as I can tell, so question marks across. But, it seems

to me, you know, bit by bit, for our purposes of oversight, we would like to see who is living up to their commitments and where the priorities lie.

Now, as you say, there's a lot of work to be done. For example, Russian general purpose submarines. I visited the Nerpa shipyard, near Murmansk, in August. The shipyard director, wants to destroy 150 general purpose submarines. Now, a lot of countries all around want that to happen, too. While all of the so-called Nunn-Lugar equipment is there: the cutting machines, the bailors, et cetera because you can do it fairly economically. But we have no authority to do that now.

The Cooperative Threat Reduction can dismantle the 41 strategic subs: no more, no less. I had to say that in a public forum with national television broadcast back in Moscow, that we would not pay to dismantle these submarines. We had to. We don't have the authority. But, in fact, it's in our general strategic interest, as well as in terms of the nuclear situation, to extract that fissile material and dismantle the sub.

The other day, USEC celebrated the delivery of 150 tons of low enriched uranium taken from nuclear warheads. This is part of a deal to eliminate 500 tons of material. This comes at a time when fears about Iraq and Saddam getting a few pounds of fissile material, not tons? There is plenty out there in the world. It'll be out there in the world if we don't take care of the general purpose subs.

And so I appreciate that you and those who crafted this agreement understood these threats and the need to respond to them. There is grave suspicion in the Nordic states the Russians may already have dumped something in the past, in terms of nuclear cores. And the need to prevent this from occurring now or in the future really is of the essence.

So I suppose my only basic question to you is, is it reasonable to try to fill in the blanks, at least in some suppositions of money, sort of across a hypothetical chart? General purpose submarines might be one category. Tactical nuclear weapons might be another, which is a priority as Secretary Powell testified. And maybe there are others that the administration will want to put forward.

So I've offered a list of ten. That's just for sake of argument, to, sort of get it going. What are our priorities? What are anybody's priorities? And what should we fill in to the chart?

Mr. BOLTON. Right. Well, I think that is one of the critical questions. Some of the countries in the G-7 have given us notional amounts that they've asked not be made entirely public yet. Others have not really given us a number at all, or certainly not given us a number that you could consider satisfactory, looking at the general size of their economies and so on. And we will continue to work on getting the—both the public commitment and the necessary followup.

For a number of them, one of the major inhibitions is the point I mentioned a moment ago about the difficulties they've had in prior projects in states of the former Soviet Union, particularly Russia where, being unable to show progress on these earlier appropriations, they have found resistance at the political level at home to trying to get more appropriation. So that's why getting

these what seem to be, sort of, nitty-gritty issues of liability and audit and access resolved is critically important——

Senator LUGAR. Very important.

Mr. BOLTON [continuing]. Not just to make our books look pretty, but to free up the existing money that's tied up, and then to be able to induce parliaments to see the worth of appropriating additional money.

In terms of the priorities, you're obviously quite familiar with things we've been doing. I'll maybe leave it to my colleagues to talk about what the different programs are moving ahead on. I think some of the other countries are beginning to establish their own priorities. I think there's a lot of interest in President Putin's two highest, that being chemical weapons destruction and general purpose submarine dismantlement. So I think there will be a lot of interest in that.

We have problems. We see lack of funding in, for example, the plutonium disposition field where there's a much larger need than we can currently see filled. Some governments, like Germany, don't want to get into plutonium disposition questions at all. That's obviously their prerogative, and they've just had an election, which I'm sure will confirm that policy, but we see that as an area that could certainly use substantial additional work.

I think, given that we've got countries that are relatively new to this, we have to give them a certain amount of time to talk about where they want to focus their efforts. Again, Canada comes to mind as a country that's moving very aggressively, working with us, looking to see where they can add on, where they might have a special role for themselves. And I think as others proceed along, that we'll be in a better position to answer your question.

But the kind of chart you're talking about is very much on our minds. And, with your permission, I will give the top 10 list, not only back to our executive branch, but to the other G-8 partners, as well.

Senator LUGAR. I'd be very pleased if you would do that and, likewise, I expect the committee will, at least periodically, ask you and others to testify about this so that we have some flow of information. After this initial enthusiasm, the follow-through becomes tedious, and we don't mean it to become that way, but I think it is important.

Mr. BOLTON. It's very important, because when the G-8 is successful, it's as an incubator of ideas that then tend to run on their own. But on something like this that's a little bit far afield from some of the things that they've done before, I think it's important that we keep attention at the leader level. That's why a French commitment is so important coming into this next Presidency.

But I think as you and other members of the committee are meeting with officials from the other G-8 countries, the expression of your interest, obviously, gets their attention, so that would be helpful, as well. And we will figure out a way to keep you informed on a regular basis. I think that's——

Senator LUGAR. That would be great.

Mr. BOLTON [continuing]. Very much in everybody's interest to do that.

Senator LUGAR. Let me just ask one more thing, and it's really a request for your department to try to think ahead. Recently, under the work of the Nuclear Threat Initiative that my former colleague, Sam Nunn, now heads, about $5 million of private funds that came from the Nuclear Threat Initiative was spent, along with $2-plus million funds from our Department of Energy, to take fissile material from Belgrade, Yugoslavia, to Russia. It was significant, and perhaps you were responsible for the opening in Russia. Again, Russia has not been willing to accept the spent fuel or other fissile material in such endeavors for many years, but did so on this occasion, perhaps because President Putin has given the authority. So that was important.

As it was reported, about 1,500 Yugoslav soldiers were involved in guarding the highways, the airports, as well as the site, and it was perceived as a dangerous operation, as movement of this and other proliferation threats would be. But, for the moment, it meant Yugoslavia had decided not to indulge in any fantasies with regard to nuclear capabilities. It was important. And there are 24 more sites around the world, as I understand, identified by the State Department as probably worthy of similar attention.

Now, one of the problems that is still a hangup in the conference with the House is the authority requested, in fact, by the Defense Department. At their request, I offered an amendment, and it was adopted in the Senate legislation, to give the administration at least authority to shift as much as $50 million of Nunn-Lugar funds quickly, if necessary, to emergencies where we are involved in the war against terrorism if proliferation problems are perceived. The current legislation says Russia and the former Soviet Union only.

Strangely enough, in the House, there is resistance to even this degree of flexibility in the midst of the war on terrorism, despite administration testimony by Secretary Rumsfeld, Secretary Powell, and others, which is almost inconceivable to me. But, nevertheless, inconceivable or not, it's happening. Right now. So I ask you once again to think about that.

Now, second, I would hope that the State Department, and maybe Defense, too, will have suggestions as to how flexibility for the administration in all of these things might come about, how many of the past restrictions imposed over 11 years of Nunn-Lugar are still worthy of consideration and which really have been rendered obsolete.

There were times, 10 or 11 years ago, where many Members of Congress said, "Not a penny for the Russians. We will throw up almost every barrier conceivable to make sure they don't get a dime." And there are some who may still have that point of view. You're not one of them, nor is the chairman or myself. We're trying to think constructively, how we work with Russia to gain their cooperation in addressing these threats. Their cooperation is necessary if this G-8 program is going to work.

So I would like to work with you, and I'm sure the chairman would, too, in trying to think through legislation next year that clears away some of the bramble bushes, but, even more importantly, thinks about how this administration could be more effective in the war against terrorism, given the locus of this material

in so many places, so that you have the necessary powers at your disposal. Because, for the moment, there will not be another $5 million coming from the Nuclear Threat Initiative. The other 24 places are still out there, but somehow our Government—State, Energy, Defense, whoever—will have to help deal with that and, prayerfully, will do so.

Mr. BOLTON. Well, I think we would look forward to working with you on those questions, and, indeed, my colleagues have been considering what to do on those other——

Senator LUGAR. Great.

Mr. BOLTON [continuing]. 24 locations. And I feel certain that President Bush and President Putin will be addressing this as a priority in just a couple of weeks at the APEC Summit.

Senator LUGAR. That'll be good news.

Mr. BOLTON. They will be meeting again on it.

Senator LUGAR. Thank you very much.

Mr. BOLTON. Thank you.

The CHAIRMAN. I know you have to go; I have just two more questions if I may, Mr. Secretary. Senator Lugar said he is perplexed by the House inaction. I find it absolutely astonishing, in the years that I've been here, how, either the left or the right would push, in the political context of the Congress, and then all of a sudden you'd find them taking action completely contrary to their overall objective.

Now, the very people who are for the broadest authority to go after Saddam Hussein are reluctant to deal with the very thing that our intelligence community tells us is the greatest risk, which is his ability to get hold of fissile material. There is a reluctance to give the Defense Department the flexibility, and right to waive conditions, so as to be able to do the kinds of things which will at least make it more unlikely that he would be able to purchase or steal the very thing everyone says that, if he stole or purchased, would leave us in real trouble. I mean, I find that mind-boggling.

But one of the things I want to ask you about, and it's sort of an offshoot of that, is the bureaucratic recalcitrance, once you get below Putin, to carrying out Nunn-Lugar and/or any new initiative in the 10 + 10, with each country involved. The other seven countries are essentially adopting their own Nunn-Lugar-type program here. And once you get below the very top level in Russia, we find these roadblocks that are thrown up that are, you know, either old apparatchik hangovers or bureaucratic inertia or whatever it is, and that's on one side of the equation.

On the other side of the equation, there is the second reality: Russia has no money. I mean, we're in a circumstance where the intelligence community indicates to us—and I'm not revealing anything that's classified—we're talking about a modest military budget and a total budget for all the Russian Federation of around $30 billion. And that's a reality, as well.

Now, I find it suspect when the phrase is used, "what we expect from the Russians financially." That is part of the equation here in determining whether or not we and our G-7 partners go forward with this roughly $20 billion commitment over 10 years.

Can you flesh out for us any more, what dialog in Canada took place relative to what is at least a generic expectation of Russian

financial contributions? I'm not talking about removing roadblocks. I'm not talking about liability insurance, tax issues. I'm talking about direct Russian appropriations. I assume that's what we mean by "what we expect of Russia financially." Is that correct?

Mr. BOLTON. Right.

The CHAIRMAN. Can you flesh that out a little for me? What are we, in broad proportions—if we're talking about spending $20 billion as a world community, G-8, over the next 10 years, what are we looking for Russia to, quote, "spend" over that same period? Do we have a sense of that? Can you help me out?

Mr. BOLTON. We have not put quantitative assessment to that yet.

The CHAIRMAN. I didn't think you did. I'm just trying to get a notion.

Mr. BOLTON. Right. What we have in mind, though, is for them, for any kind of projects like those we're talking about, to bear associated local costs. I think I mentioned earlier the local infrastructure in connection with the Shchuch'ye chemical weapons destruction facility, and there are other such things that we would expect them to be forward-leaning on.

And I should say we also need them to avoid the kind of problem that we had on the missile fuel facility that we constructed that's been the subject of press reports, in which Secretary Rumsfeld put very directly to his counterpart several months ago when he was here, about how that money had actually been used for something else. Now, that's still being considered and discussed. It was troubling when we found out about it. At least the Russians admitted it. We're going to have to deal with it. I don't need to tell you that that can cause political difficulties in explaining that we're appropriating all of this money, some $1 billion a year, and finding that maybe it's not actually going for the purposes for which it was intended. I think the Russians understand the seriousness of that point.

But I did not mean to suggest, and I don't think you meant to ask, you know, are we asking for the same amount from them or something like that.

The CHAIRMAN. No, I just want to get a sense because, as you know, John, there are still—it is a diminishing number, but there are still—a number of Senators and Congressmen who believe that this is fungible money and, therefore, we shouldn't be involved in this at all. There are still those who truly believe that we just shouldn't be involved in this at all, because whatever money we spend, they, quote, "won't spend," and they'll do bad things with the money that they save.

I'm not belittling the argument; I'm just outlining it. And so what I hope we can avoid is, a year from now, when we're analyzing what progress has or hasn't been made, the assertion that, well, the Russians didn't put up their share, and it be something that is either unrealistic, unreasonable, or beyond their capacity, even if they had the will. It's a different thing if there are diversions of those moneys. It's a different thing if there is no willingness to participate in any way, when they could and it's clearly within their means to do it. That's the reason I asked the question.

Mr. BOLTON. Right. And I think it does tie in with this question of the guidelines and the transparency and the audit rights and the rest of it, because other countries that don't have the kind of sophisticated, not to say complex, programming mechanisms that we have that might make contributions directly to the Government of Russia, might find themselves in some difficulty if they couldn't explain how that money has actually been expended. And I think they recognize that, and that's one of the reasons why, not only, obviously, did we want these guidelines because of our umbrella agreement, we felt it was critical to get them so that the other G-7 members would have the protections that we have essentially had these last 10 years.

The CHAIRMAN. Well, I thank you. You've been generous with your time. You told us ahead of time you had a meeting with the boss downtown, and we'll accommodate that. But I have about a half dozen questions for the record. They're just expansions on some of what the Senators have already asked you.

The distinguished Senator from Florida says he does not have any questions for you.

Senator NELSON. I will submit some to you in writing, as well.

The CHAIRMAN. We thank you very much, Mr. Secretary, for being here, and we wish you God speed on making sure we're able to take this very promising development, which you are responsible for in the administration, and turn it into something that will actually make us safer.

Mr. BOLTON. Well, I appreciate that, Mr. Chairman. And, as I said earlier, we're pleased to work with the committee in terms of priorities as they develop and making sure that you are supplied with information about what the Global Partnership is doing and we would be happy to come up at whatever time is convenient and keep you and your colleagues briefed on it.

The CHAIRMAN. Speaking only for myself, but I expect it would even be a greater commitment if this chairmanship changes. The single highest priority this committee is going to focus on, if I am chairman, for the next year will be the whole notion of cooperative threat reduction. We know, that international events intervene and we must respond, and we're going to have a lot else going. But this, to me, is the single most significant and potentially most promising thing that we could do in order to enhance the prospect that we avoid the most disastrous consequence: weapons of mass destruction ending up in the hands of non-nation states or nation states that are rogue states.

So we're going to be spending a lot of time on this, and I'm positive, if my friend is the chairman, that that will be the case.

Mr. BOLTON. I won't comment on that.

The CHAIRMAN. But, either way, either way, this is something we're going to, on a frequent basis, be focusing on.

But thank you very, very much.

Mr. BOLTON. I look forward to working with both of you and the entire committee.

Senator NELSON. Mr. Chairman, I would just add, thank you—and I know Senator Lugar feels the same way—about the focus of the committee. Take, for example, as we've approached this question of the vote this week on the Iraq resolution, we know Saddam

Hussein has the chemical and biological weapons, we know he's trying to develop nuclear weapons, and what do we hear over and over from all of the experts? It is that if he's got to develop it himself, it's going to take some number of years; but if he gets the fissile material from elsewhere, he can do it in a matter of months.

And so what better proof do we have than the debate we're having right now that this is one of the most important things that the United States can do, is to stop the proliferation.

The CHAIRMAN. Thank you, Senator.

We thank you for your leadership, John.

Mr. BOLTON. Thank you. Thank you, Mr. Chairman.

The CHAIRMAN. And we look forward to working with you.

Mr. BOLTON. Thank you.

The CHAIRMAN. Now, our second panel is the Honorable John S. Wolf, Assistant Secretary of State for Nonproliferation, U.S. Department of State; Lisa Bronson, Deputy Under Secretary of Defense for Technology Security and Counter-Proliferation, the Department of Defense; the Honorable Linton Brooks, Acting Administrator of the National Nuclear Security Administration, U.S. Department of Energy.

And then we'll have a third panel, I say to those who are in the audience, with two additional witnesses whom I'll introduce at that time.

Secretary Wolf, if you would begin, we would appreciate it.

STATEMENT OF HON. JOHN S. WOLF, ASSISTANT SECRETARY OF STATE FOR NONPROLIFERATION, DEPARTMENT OF STATE, WASHINGTON, DC

Mr. WOLF. Thank you, Mr. Chairman, and I thank the committee for the support that you give on these vital programs.

Under Secretary Bolton has already talked about the big picture of the Global Partnership and the importance that it has and the possibilities that it has, and I'm not going to try and duplicate that discussion except to say that there's still work to do, first, within the G-8 to make sure that we're actually able to use the guidelines to accomplish the kinds of purposes that the leaders set at Kananaskis, and then to expand the effort to include other donors.

I guess I should have said at the outset, I have a statement, and I'll just paraphrase parts of it and then leave the rest for questions.

So I would start by saying that the Global Partnership, though, is also—is more than a fundraising effort, and it's very important to remember that at Kananaskis the leaders incorporated a set of principles that all the partners signed up to, and we actually use those principles to help shape the way in which we, at the State Department and in the inter-agency, focus our worldwide efforts. And it's important to think of the Global Partnership and remember the word "global," because it does have application beyond Russia and the former Soviet Union.

So we use the principles within State to organize efforts that are related to curbing the supply of weapons of mass destruction, missile technology expertise and materials, to interdict weapons of mass destruction in international commerce, to restrain programs, to curb demand, to strengthen the international treaties and export

groups and the norms, and also to improve cooperation on nuclear safety and security.

In that context, for this purpose, I'll talk largely about how we're working on supply possibilities, things that are related to curbing supply. And there, State, DOD, and, increasingly, Treasury all have roles to play. Let me talk a little bit about what we do.

First, the International Science Centers in our biological and chemical engagement, designed to keep Russian and Eurasian scientists from working for terrorists or proliferant states. We use numbers that are very significant, when we talk about this. We have, at one time or another, engaged 50,000 scientists. I think it's important, impressive though that achievement may be, to remember that this is only a fraction of the total population or the total man-years, when you look at it over 10 years, if there were 50,000 to 70,000 weapons of mass destruction scientists, 10 years is 700,000; or 50,000 is a fraction. We are working to expand that effort. We need to do it ourselves, and the Global Partnership anticipates that our partners will also do more on the Science Centers in biological and chemical engagement.

We're also, importantly, working with U.S. businesses to accelerate the transitions of the Science Centers work from stopgap efforts to things that will enable the Science Centers to promote long-term fixes and to enable the labs to get onto long-term sustainable work that will provide peaceful private sector jobs for these former Soviet Union scientists.

We began the Bio-Industry Initiative to work with our Russian partners to reconfigure former Soviet biological weapons production facilities, engage more of the scientists in collaborative R&D. They're working on a variety of things: accelerated vaccine and drug therapy for highly infectious diseases, such as drug-resistant tuberculosis. There are a variety of opportunities for U.S. and Russian industry, and we're looking to develop a sustainable Russian biotech industry.

Congress has given us other tools that include the reauthorization of the Soviet Scientists Act that was included in the State Department authorization. And this will provide a way in which we can enable former weapons scientists to emigrate to the United States and work with our scientific community instead of being at risk for proliferant states.

We have a variety of anti-smuggling efforts that we conduct with our colleagues from the Department of Energy, Defense, Commerce, and this is an important focus of the State Department's work. We oversee an interagency effort that draws on our worldwide presence and DOE's extraordinary analytic and technical capabilities. We marry these up in our work with local law enforcement officers, and it's designed to stop the risk of nuclear smuggling, roll up rings of criminals that are engaged in the activity.

You read lots of reports; there was another report today about 27 tons of uranium. Most of these turn out to be scams or to be legitimate commerce, and the one today, according to our reports and the IAEA's, was a paperwork problem, not an illegal effort.

Another important part of our strategy is to work on export control programs and to assist states that need to shore up their capabilities to prevent and stop smuggling. Effective export and border

controls, vigorous enforcement are all part of the tools that we're trying to put in place to stop the spread of weapons of mass destruction and their delivery systems. We work with a variety of agencies on this, in terms of equipment and in terms of technique.

We're also working with our international partners to make clear that export controls not only cover things, but they cover the technology, the intangibles, the data and the intellectual property that a lot of proliferant states are trying to get. They find that they can get the dual use technology that they need, but what they really need is the scientific knowhow. And so we're trying to make sure that the export of that is illegal and that countries enforce those laws. More needs to be done.

We're working to interdict weapons of mass destruction, missile-related shipments. We do a variety of things in the Australia group, the Missile Technology Control Regime, the Nuclear Suppliers Group. In this regard, we use diplomacy, we use intelligence, we use law enforcement, we use multilateral means, we use plurilateral means, and we are—and we will use unilateral interdiction where it is necessary to stop these kinds of shipments and where the opportunities present themselves.

We have a rapid flexible response capability in the Nonproliferation and Disarmament Fund [NDF]. It works in the kinds of ways that we also anticipate the Global Partnership will. Over the past few months, NDF has helped negotiate, fund, and organize the removal of highly enriched uranium [HEU] from the Vinca Research Reactor in Yugoslavia. We have deployed radiation detection systems on the Turkish border with Syria, Iran, and Iraq. We're currently overseeing the destruction of SS–23 and Scud missiles in Bulgaria. There are a number of operations, a number of potential projects like this.

Linton Brooks and I are working together to come up with a plan that will deal with the remaining 24 research reactors. We're working with DOE and DOD on the wider question of dangerous materials worldwide. We intend to assist countries to strengthen and modify their laws, regulations, develop and deploy tracking systems and secure stockpiles, when appropriate, and to remove materials when necessary.

This is a difficult job, as you all have stated today and previously, and we thank you for the support that you give. It requires active diplomacy. The facilities we often want to see are very sensitive facilities, and host governments are reluctant to let in either our program officials or visiting Senators.

That said, Senator Lugar, I know you're interesting in getting access—you were interested in getting access to the bioweapons facilities in the Kirov area you mentioned earlier. We are, too. And so we have just made an initial—we've got some initial entree now to the Kirov 200 BW facility, and we are working on the production of drugs to combat multidrug-resistant tuberculosis. It's a small first step, but journeys all start with a small step.

Global Partnership: big opportunity. We intend to work with our international partners to deal with the problems of weapons of mass destruction, as you said and as Under Secretary Bolton said. We've been doing a lot. We're trying to do more, but we think that our partners have an important role, and that's why 10 + 10 over

the next 10 years provides an opportunity to engage a greater degree of focus by our G-8 and other partners.

Thank you very much.

[The prepared statement of Mr. Wolf follows:]

PREPARED STATEMENT OF HON. JOHN S. WOLF, ASSISTANT SECRETARY OF STATE FOR NONPROLIFERATION, DEPARTMENT OF STATE

Good morning, Mr. Chairman and members of this Committee. It is an honor to appear before you with my colleagues from the Energy, and Defense Departments. The Administration relies on these three agencies to work together to combat the spread of weapons of mass destruction and dangerous technologies.

Under Secretary Bolton has given you the big picture on the Global Partnership initiative. It provides a golden opportunity to leverage our own threat reduction programs, and to galvanize long overdue international support to deal with the WMD proliferation.

While the Partnership's initial focus is on Russia and Eurasia, there is a basis for the partnership to operate more broadly. But, the first task is to build G-8 support—this includes gaining financial commitments and designing projects. And, Under Secretary Bolton said Russia bears significant responsibility to assure that the projects can be implemented under the guidelines and also to use its own resources to help accomplish the tasks.

My staff and I have been active diplomatically first to rally support among the G-8 for the Partnership concept and then to maintain it. While we still need to do more with our G-8 partners, I hope we will soon be able to approach other countries outside the group to seek their contributions to this effort as well. I suspect we will have better chances when we have cleared away some of the implementation issues discussed at the G-8 Senior Officials meeting in Ottawa last month.

The Global Partnership is more than a fundraising effort—it includes a set of core nonproliferation principles that all the partners signed up to. We use these principles within State to organize efforts to:

- Curb the supply of WMD and missile technology, expertise and materials
- Interdict WMD transfers
- Restrain WMD programs
- Strengthen WMD norms, regimes, and treaties, and
- Promote nuclear cooperation in the context of safety and security

In the context of the Global Partnership, we are focusing largely on curbing supply possibilities. State, DOD and, increasingly, Treasury all have roles to play in this effort. Let me talk a bit about our efforts at State.

First, through the International Science centers and bio and chemical engagement, we are keeping Russian and Eurasian scientists from working for terrorists or proliferant states. The break-up of the USSR left thousands of former WMD scientists and engineers without a future. After ten years of effort we estimate that we have engaged half of them, at one point or another. But impressive though that achievement may be, the fact is that the science center projects account for only a fraction of the projected weapons scientist man-years available—we are expanding our efforts and persuading others to do likewise. More importantly, we are working with U.S. businesses to accelerate the transition of science center work from stopgap measures to long-term fixes built on new, sustainable, peaceful, private sector jobs for these former Soviet weapons scientists.

Recently, we began the Bio-Industry initiative to work with our Russian partners to reconfigure former Soviet biological weapons (BW) production facilities and engage more Soviet biological and chemical Weapons scientists in collaborative R&D projects for the purpose of accelerated vaccine and drug therapy development for highly infectious diseases such as drug resistant tuberculosis. Our strategy in this area is to create new Russian-U.S. Industry partnerships as well as help develop a sustainable Russia biotech industry.

Congress has given us other tools to prevent proliferation of WMD expertise. The reauthorization of the Soviet Scientists Act included in State's authorization legislation will provide a way for former weapons scientists to immigrate to the United States and work with our scientific community instead of to proliferant states.

Our anti-smuggling efforts, conducted with our colleagues from the Department of Energy, Defense, and Commerce, are another important focus. We oversee an interagency effort that draws on State's worldwide presence and DOE's extraordinary analytical and technical capabilities. We marry up these capabilities with local law enforcement to detect nuclear terrorism and roll up rings of criminals en-

gaged in scams. For example, in 2000, State facilitated the safe retrieval of the HEU seized at a border checkpoint in Rousse, Bulgaria. The HEU underwent nuclear forensic analysis at Lawrence Livermore National Laboratory. This case was linked to other cases and law enforcement and intelligence authorities are continuing to follow-up on it.

Another important part of our strategy is our export control program which assists states that need to shore up their capabilities to prevent and stop such smuggling. Effective export and border controls, combined with vigorous enforcement, are crucial tools in stemming the proliferation of WMD and their delivery systems. We are working with implementing agencies such as the Departments of Commerce and Energy and the U.S. Customs Service to ensure that potential supplier countries have proper controls on exports, and that transit and transshipment countries in the region have the tools to interdict illicit shipments crossing their territories. Potential source countries remain our highest priority. But even as we work with them on export control lists, we find a number of countries still lack the trained personnel and enforcement infrastructure necessary to carry out nonproliferation commitments. We are also working with our international partners to make clear that export controls must not only cover "things" but also intangibles, such as data and intellectual property. And in fact, more needs to be done.

We're putting considerable effort into the interagency effort we lead to strengthen enforcement, and have recorded measurable success. In several NIS states, U.S.-trained officials, using U.S.-provided detection equipment, have made seizures of potentially dangerous radioactive materials. In one Caspian basin country, U.S.-trained officials detected a shipment of military equipment bound for a suspicious end-user in the Middle East. Following consultation with our in-country Export Control and Border Security program advisor, the equipment was detained. But much more needs to be done in Central Asia, as well as countries like Russia, China, India, and the countries in Southeast Asia.

State is also working to interdict WMD- and missile-related shipments of concerns to proliferant states. We work very closely with our partners in the Australia Group, Missile Technology Control Regime, and the Nuclear Suppliers Group to prevent shipments of concern from reaching CEW, missile and nuclear, programs around the world. We use diplomatic, intelligence, and law enforcement channels as appropriate to disrupt the flow of raw materials, production equipment and technological know-how to these programs.

I should also add that State maintains a rapid, flexible response capability to respond to emerging dangers. Our Non-proliferation and Disarmament Fund (NDF) supplements initiatives such as the Global Partnership that focus on Russia and the NIS by providing similar capabilities worldwide. Over the past few months NDF helped negotiate, fund and organize the removal of HEU from the Vinca Research Reactor in Yugoslavia; deployed radiation detection systems on Turkish borders with Syria, Iran and Iraq; and is currently overseeing the destruction of SS-23's and SCUD missiles in Bulgaria.

Sadly, many sites like Vinca pose a proliferation danger. Over the next several months, the NDF working with DOE will begin work to protect dangerous material worldwide. This initiative will assist countries to strengthen and modify their laws and regulations; develop and deploy automated means of tracking inventories and shipments of these materials; secure stockpiles; and when necessary, remove dangerous materials from insecure locations.

State recognizes that advancing nonproliferation in Russia and the NIS is difficult. As members of this committee can attest, much of this work involves increasing the security of facilities so sensitive, host governments are reluctant to let in either U.S. program officials or congressional delegations. That said, we have made a lot of progress with a very small budget. Senator Lugar, I know you were interested in getting access to bio-weapons facilities in the Kirov area. We are too. For example, we have begun discussions with the Kirov 200 BW facility on the potential production of drugs to combat multi-drug resistant tuberculosis. We hope this is the first step toward greater engagement of scientists and facilities in that region.

Global Partnership provides us an opportunity to spread the burden and expand the scope of these non-proliferation effort, and State will aggressively move ahead to increase international support for the initiative while vigorously pursuing the programs we already have underway.

The CHAIRMAN. Secretary Wolf, I thank you, not just for your statement, but for your enthusiasm. You sound like you're committed to this, which makes me feel a lot better.

I think next would be Secretary Bronson. Welcome.

STATEMENT OF LISA BRONSON, DEPUTY UNDER SECRETARY OF DEFENSE FOR TECHNOLOGY SECURITY AND COUNTER-PROLIFERATION, DEPARTMENT OF DEFENSE, WASHINGTON, DC

Ms. BRONSON. Thank you.

Thank you for inviting me to discuss the Department of Defense Cooperative Threat Reduction program and how the CTR program can support the G-8 Global Partnership against the spread of weapons and materials of mass destruction. I have submitted a written statement, so I will keep my remarks this morning brief.

The CHAIRMAN. Your entire statement will be placed in the record.

Ms. BRONSON. The Department of Defense's Cooperative Threat Reduction program has helped to reduce WMD and WMD infrastructure. It has improved accountability for WMD and improved the storage and transport security of WMD. In addition, the CTR program has helped provide secure storage for weapons-grade fissile material.

The Global Partnership offers a means to accelerate and expand this effort. In today's security environment, CTR's technical and regional expertise will serve well the global security cooperation we envision that our G-8 partners can undertake and help sustain our longstanding commitment to work with other countries to prevent the proliferation of weapons of mass destruction.

With over a decade of CTR experience, success, and lessons learned, the Department is prepared to work with our G-8 partners to help them address implementation and government-to-government procedural issues that may have blocked expenditure of nonproliferation and threat reduction funding. The CTR umbrella agreements we have negotiated with the FSU states, with their liability protections, exemption from taxation, and access to work sites, offer an excellent template for the assistance contemplated by the Global Partnership.

We hope that this interaction will promote a coordinated effort between the G-8 partners that is beneficial to the recipient nations. We are confident that a common approach to the challenging implementation issues will strengthen our efforts of each participating party.

To ensure a coordinated and mutually reinforcing effort, it is vital that DOD and others share the lessons we have learned. For example, the administration has developed more stringent guidelines for cooperative research with Russia on dangerous pathogens in response to our continuing concerns over Russia's commitment to comply with the biological weapons convention. These guidelines should be shared with other donor states if they are to decide to fund similar research.

We have invested over $229 million in the design and site preparations for the chemical weapons destruction facility. The President's budget has requested $126 million for fiscal year 2003 to construct the pilot plant.

The CHAIRMAN. I beg your pardon, Madam Secretary, how much did you say that was? Requested how much?

Ms. BRONSON. The request is $126 million, sir.

The CHAIRMAN. Thank you.

Ms. BRONSON. We are working with Russia on meeting congressionally mandated conditions so that construction can begin. We intend to continue to press Russia to address the concerns embodied by these conditions. However, as Dr. Rice stated in her July 30 letter to Senator Lugar, at a minimum, the information gathering process will be very time-consuming. But the proliferation threat gives us no time to delay. Therefore, the Department joins Under Secretary Bolton in urging that Congress approve the administration's request for authority for the President to waive these conditions if he deems it is in the national interest.

Given the magnitude of the effort required, it is critical for other donor states to invest heavily in this effort if Russia is to eliminate all of its CW stocks by 2012.

We are working with other donors to identify the work and to break it down into pieces that they can afford to fund. Thus far Canada has committed nearly $4 million to this effort. The United Kingdom is providing up to $18 million, and Italy approximately $7 million. Germany has already committed $1.3 million and has also built a blister agent destruction facility. The EU has committed $1.8 million in 2001. Other states, including Netherlands, Norway, Sweden, and Switzerland, will provide additional money for chemical weapons destruction.

DOD has developed an effective and efficient means to eliminate WMD intercontinental delivery systems. Several nations have indicated that they are interested in eliminating shorter-range WMD delivery systems. We are prepared to share with them what we have learned about the capabilities of a variety of Russian enterprises involved in this area. We are also prepared to share the numerous contracting procedures, the rules of thumb that we have learned work best, such as insisting on fixed-price contracts with recipient country contractors, with pay after the work is completed, and unique government cost-estimating experience.

The CHAIRMAN. You sound like you've tried to build a home.

Ms. BRONSON. Whether it be responding to a specific proliferation threat keeping WMD and related technologies out of the terrorists' hands, or other scenarios, the Comprehensive Threat Reduction program has a key role to play in securing U.S. interests and in more actively engaging our G-8 partners to accelerate the proliferation prevention solutions to the issues that affect the entire international community.

Once again, congressional support for these efforts is essential. As Under Secretary Bolton has testified, we are seeking, in the Defense authorization bill, congressional approval of the authority for the President to waive the annual certification requirement. In this, and in all of our CTR endeavors, we look forward to working with the Congress, which has played such an important role in founding and improving this program.

Thank you very much.

[The prepared statement of Ms. Bronson follows:]

PREPARED STATEMENT OF LISA BRONSON, DEPUTY UNDER SECRETARY OF DEFENSE FOR TECHNOLOGY SECURITY AND COUNTER-PROLIFERATION

Thank you for inviting me to discuss the Department of Defense Cooperative Threat Reduction (CTR) Program and how the CTR program supports the G-8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction.

The Soviet Nuclear Threat Reduction Act of 1991—the Nunn-Lugar Act—charged Department of Defense (DOD) with establishing a program to assist the Soviet Union and any successor state to destroy, safeguard and prevent the proliferation of weapons of mass destruction (WMD). Following the negotiation of the Umbrella Agreements with Russia, Ukraine, Kazakhstan, and Belarus by the State Department, the DOD created the CTR program to implement the Nunn-Lugar Act. Subsequently, Moldova, Georgia, and Uzbekistan were added to this program. Through CTR, the U.S. has assisted these states to dismantle, consolidate, and secure WMD and their associated delivery systems, infrastructure, and technology. CTR's defense and military cooperation with these states has also furthered the objective of preventing proliferation.

Sustained support from Congress will remain essential as DOD completes its ongoing programs to destroy or secure WMD in the States of the former Soviet Union (FSU) and as DOD works with the interagency to build a self-sustaining border security program in the non-Russian States. In this respect, I want to take a moment to recognize the vision shown by Senators Lugar and Nunn in creating this program and continuing to support it for over a decade.

Since 1992 DOD has obligated over $3 billion for CTR assistance. This investment has produced real dividends. The CTR program has helped deactivate 5,990 nuclear warheads and eliminate 831 ballistic missile launchers, 97 heavy bombers, 24 ballistic missile submarines and 815 ballistic missiles. Belarus, Kazakhstan and Ukraine acceded to the Nuclear Nonproliferation Treaty in 1993 and 1994 based on promises of United States assistance to rid their countries of nuclear weapons. The CTR program helped fulfill this promise by 1996.

DISMANTLING FSU WMD, DELIVERY SYSTEMS, AND ASSOCIATED INFRASTRUCTURE

The potential proliferation of FSU nuclear weapons, delivery systems and related technologies continues to pose a threat to U.S. national security. Several CTR program areas assist the FSU in dismantling these items at their sources.

Russia. The President's FY 2003 budget request includes funding for the Strategic Offensive Arms Elimination (SOAE) program area to assist Russia in reducing its strategic nuclear delivery systems, including the elimination of SS-24 and SS-25 mobile ICBM systems. We are also moving forward with the design and site preparation of a chemical weapons (CW) destruction facility at Shchuch'ye, and continuing demilitarization of former CW production facilities.

Ukraine. Strategic Nuclear Arms Elimination projects have eliminated all of Ukraine's START-accountable nuclear delivery vehicles and are helping to dismantle WMD infrastructure and remaining delivery systems (i.e., SS-24 missiles, Tu-22M bombers, and Kh-22 nuclear capable air-to-surface missiles).

Kazakhstan. We have completely eliminated all strategic arms from Kazakhstan. We plan to continue efforts to destroy equipment and facilities that were used to support the deployment and operation of Soviet WMD and delivery systems, including liquid missile propellant and a chemical weapons production facility.

Uzbekistan. DOD conducted a CTR project in FY 2002 in Uzbekistan to destroy anthrax that the Soviet military buried at the biological weapons testing complex on Vozrozhdeniye Island there, and DOD completed dismantlement of the former Soviet chemical weapons research, development and testing facility at Nukus, Uzbekistan.

CONSOLIDATE AND SECURE FSU WMD AND RELATED TECHNOLOGY AND MATERIALS

DOD's CTR and DoE's nonproliferation programs support U.S. efforts to prevent the proliferation of FSU WMD and related technology by consolidating and securing nuclear weapons, fissile material, chemical weapons and dangerous pathogen collections. We continue to be concerned with the potential for theft or diversion of Russian nuclear weapons, and plan to complete integration and installation of enhanced storage site security systems, as well as secure better access to sites under Russian law. The two chemical weapons sites storing artillery shells and missile warheads are receiving security upgrades as are dangerous pathogen collections. In Kazakhstan we are continuing efforts to consolidate and secure fissile and radioactive material.

The Nuclear Weapons Transportation Security program with Russia will continue assisting the consolidation of nuclear weapons from Russia's Ministry of Defense (MoD) operational sites to Ministry of Atomic Energy nuclear weapons dismantlement facilities. DOD will continue funding rail shipments designed to carry nuclear warheads to dismantlement sites, the maintenance of Russian railcars, and the provision of specialized emergency response vehicles and nuclear weapons recovery

equipment to support MoD training for accidents or incidents involving nuclear weapons.

We anticipate completing construction of a Fissile Material Storage Facility at Mayak, Russia in 2003. Once operational, it will provide centralized, safe, secure, and ecologically sound storage of up to 50 metric tons of weapons-grade plutonium and 200 metric tons of weapons grade highly enriched uranium (HEU). The Russian Government has informed us of its plans to begin loading it "with fissile materials derived from destruction of nuclear weapons" in late 2003.

SUPPORT FOR DEFENSE AND MILITARY COOPERATION WITH THE OBJECTIVE OF PREVENTING PROLIFERATION

We are increasing our contribution to the USG effort to combat the smuggling of materials that could contribute to nuclear, biological, and chemical weapons programs. The WMD Proliferation Prevention Initiative is designed to enhance non-Russian FSU capabilities to prevent, deter, detect and interdict illicit trafficking in WMD and related materials, and to respond effectively to trafficking incidents at the border. This initiative will provide training, equipment and infrastructure designed to enhance recipient countries' capabilities to prevent WMD or related materials from falling into the hands of terrorists and rogue states. We are working with our interagency counterparts to finalize an overall U.S. government strategic plan for the future of WMD border security assistance to ensure that DOD's efforts are fully coordinated with those of other agencies. We have begun development of prototype projects that DOD expects to begin implementing in FY 2003.

DOD'S ROLE IN SUPPORTING THE GLOBAL PARTNERSHIP

The CTR program has helped: 1) reduce WMD and WMD infrastructure; 2) improve accountability for, and storage and transport security of, WMD; and, 3) provide secure storage for weapons grade fissile material.

The Global Partnership provides a means to accelerate and expand this effort. In today's security environment, CTR's technical and regional expertise will serve well the global security cooperation we envision with our G-8 partners and help to sustain our long-standing commitment to work with other countries to prevent the proliferation of WMD. With a decade of CTR experience, success, and lessons learned, DOD is prepared to work with our G-8 partners to help them address implementation and government-to-government procedural issues that may have blocked expenditure of non-proliferation and threat reduction funding. The CTR Umbrella Agreements we have negotiated with FSU states—with their liability protections, exemption from taxation and access to work sites—offer an excellent template for the assistance contemplated by the Global Partnership. We hope that this interaction will promote a coordinated effort between the G-8 partners that is beneficial to the recipient nations. We are confident that a common approach to challenging implementation issues will strengthen the efforts of each participating Party.

To ensure a coordinated and mutually reinforcing effort, it is vital that DOD and others share the lessons we have learned. For example, the Administration has developed more stringent guidelines for cooperative research with Russia on dangerous pathogens in response to our continuing concerns over Russia's commitment to comply with the Biological Weapons Convention. These guidelines should be shared with other donor States if they decide to fund similar research.

We have invested over $229 million in the design and site preparations for the Chemical Weapons Destruction facility. The President's budget has requested $126 million for FY 2003 to construct the pilot plant. We are working with Russia on meeting Congressionally mandated conditions so that construction can begin. We intend to continue to press the Russians to address the concerns embodied by these conditions. However, as Dr. Rice stated in her July 30, 2002 letter to Senator Lugar, "At a minimum, the information-gathering process will be very time consuming, but the proliferation threat gives us no time to delay." Therefore, we join Under Secretary Bolton in urging that the Congress approve the Administration's request for authority for the President to waive these conditions if he deems it is in the national interest.

Given the magnitude of the effort required, it is critical for other donor states to invest heavily in this effort as well if Russia is to eliminate all its CW stocks by 2012. We are working with other donors to identify the work and break it down into pieces they can afford to fund. Thus far Canada has committed nearly $4 million to this effort, the United Kingdom is providing up to $18 million and Italy approximately $7 million. Germany committed $1.3 million in 2002, and has also built a blister agent destruction facility. The EU committed $1.8 million in 2001. Other

states, including The Netherlands, Norway, Sweden, and Switzerland will provide an aggregate of approximately $24 million for chemical weapons destruction.

DOD has developed an effective and efficient means to eliminate WMD intercontinental delivery systems. Several nations have indicated they are interested in eliminating shorter-range WMD delivery systems. We are prepared to share with them what we have learned about the capabilities of a variety of Russian enterprises involved in this area.

We are also prepared to share the numerous contracting procedures and rules-of-thumb we have learned work best, such as insisting on fixed price contracts with recipient country contractors, with pay after the work is completed, and unique Government cost estimating experience.

EMERGING OPPORTUNITIES FOR CTR

Whether it be responding to a specific proliferation threat, keeping WMD and related technologies out of terrorists' hands, or other scenarios, CTR has a key role to play in securing U.S. interests and in more actively engaging our G-8 partners to accelerate proliferation prevention solutions to issues that affect the international community. Once again, Congressional support for these efforts is essential. As Under Secretary Bolton has testified, we are seeking in the Defense Authorization bill Congressional approval of the authority for the President to waive the annual certification requirement for the Cooperative Threat Reduction funding. In this and all other CTR endeavors, we look forward to working with Congress, which has played such an important role in founding and improving this program.

The CHAIRMAN. Thank you very much.

Ambassador Brooks.

STATEMENT OF HON. LINTON BROOKS, ACTING ADMINISTRATOR, NATIONAL NUCLEAR SECURITY ADMINISTRATION, DEPARTMENT OF ENERGY, WASHINGTON, DC

Mr. BROOKS. Mr. Chairman, thank you very much, members of the committee. Like my colleagues, I have a statement, and, like my colleagues, I will truncate it, with your permission.

You will find when you review our formal statements that there's a great deal of overlap. That's because we seek to present before you our common enthusiasm for the Global Partnership and our common determination to work together to make it succeed.

Under Secretary Bolton has spoken about the administration's general support. I would just like to add, on behalf of Secretary Abraham, that this is a very high priority for the Department of Energy, as well, and he has made that clear most recently in his dealings at the International Atomic Energy Agency's General Conference.

From the standpoint of the Department of Energy, we were, of course, working on proliferation well before the Global Partnership. Of the roughly $1 billion for nonproliferation in Russia for fiscal 2003, our share is about $443 million, and I would expect comparable figures in future years.

We look forward, as Secretary Bolton said, to support from our G-8 partners. We've made substantial progress in Russia, but there still exists hundred of tons of poorly guarded weapons grade material, a large nuclear weapons complex, and there's still three reactors producing plutonium.

If I may digress, we are working, as Secretary Wolf said, on the shutting down of various research reactors. Our next step in that, I hope, will occur with the return of spent fuel from Uzbekistan later this year. That's somewhat more challenging than the Vinca operation, which involved only fresh fuel, but we believe that the

Russians have finally gotten their legal system in order to let this happen.

Now, in all of these areas, if our allies choose, and we hope very much they will choose, they can make a substantial contribution. But most important, from the standpoint of the Department of Energy, is participation in the Russian portion of plutonium disposition.

The CHAIRMAN. Plutonium disposition.

Mr. BROOKS. Plutonium, yes, sir. Gaining full funding for that program is crucial to our attempts to eliminate 34 tons of Russian weapons plutonium, which is enough for well over 8,000 warheads.

There are other areas where contributions by our allies would be particularly valuable. They would permit us to carry out the decommissioning of reactors in Russian Kazakhstan that produced plutonium, carry that out more rapidly. They would assist in preventing the hemorrhage of WMD expertise. They would assist in expediting the research reactor fuel return that I just mentioned. And, in particular, a relatively new task, we see a role for our allies in assisting in securing radiological sources.

We also think that there is a value beyond the financial. The visible involvement of the world's leading economies in cooperative nonproliferation demonstrates that this is, in fact, a global response to a global challenge.

Now, as Secretary Bolton mentioned, we have to be realistic. In agreeing this year on a Global Partnership, the G-8 laid the foundation, but there's a good deal of work that we have to do to turn promise into performance. It'll take time to realize the potential of this partnership. Our partners have to continue to match their words with financial commitments, and Russia has to cooperative on implementing arrangements. And that's a key question.

The G-8 is committed to resolving the type of sensitive implementation issues that have impeded all of our efforts to work effectively in Russia. The guidelines call for effective monitoring and transparency, for exemption from taxes, duties, and levies, for privileges and immunities.

In implementing our program, we have regularly run into problems in this area. For example, our efforts to expand down-blending of highly enriched uranium under the Material Consolidation Conversion Program are being hampered by Russian issues that relate to taxes and liabilities and by other Russian bureaucratic problems. We continue to face access issues in the closed cities and in the serial production points. Access restrictions, of course, hinder our ability to conduct the program, but they also hinder our ability to demonstrate the transparency that allows us to assure you and the skeptical colleagues you referred to earlier that our funds are being spent on the purpose for which they are intended.

I don't mean to overstate our problems. In general, I'm quite pleased with our cooperative efforts, but it would be foolish to ignore these difficulties. Secretary Bolton pointed out our allies have faced similar problems. And if the Global Partnership is to fulfill its potential, Russia has to work with us to resolve these issues.

Despite these challenges, however, it's clear that the Global Partnership is an opportunity to write a new chapter in nonproliferation and cooperative efforts. And, under the President's leadership,

we intend to work tirelessly to make this happen. And, as we do, we continue to be extremely grateful for both the leadership and the support shown by this committee.

Thank you, sir.

[The prepared statement of Ambassador Brooks follows:]

PREPARED STATEMENT OF HON. LINTON BROOKS, ACTING ADMINISTRATOR, NATIONAL NUCLEAR SECURITY ADMINISTRATION, DEPARTMENT OF ENERGY

Mr. Chairman, Members of the Committee. I am pleased to have the opportunity to appear before you and discuss the impact of the G-8 Global Partnership on Department of Energy non-proliferation programs. At the outset, I want to thank the Senate, and Senators Biden, Lugar and the other members of this Committee in particular, for the support and leadership shown in passing the Foreign Relations Authorization Act and its specific language that is relevant to the Global Partnership. We agree completely with the legislation's conclusion that addressing threats of under-secured nuclear and radiological materials in Russia is "a burden that will have to be shared by the Russian Federation, the United States, and other governments, if these threats are to be neutralized." The President's initiative in establishing the G-8 Global Partnership illustrates how firmly the Administration shares this view.

LAYING THE GROUNDWORK FOR EXPANDED GLOBAL NONPROLIFERATION EFFORTS

Under Secretary Bolton has made it clear that the Administration strongly supports the Global Partnership, which we regard as a significant step toward more effective nonproliferation. The Department of Energy and the National Nuclear Security Administration share that strong support. We look forward to helping to implement, the Global Partnership initiative. During last month's IAEA General Conference in Vienna, Secretary Abraham commented to our G-8 partners that the United States is "especially excited about the G-8 Global Partnership Initiative because it . . . binds us together in a spirit of resolve. And I know that the Global Partnership will increase and accelerate the good works that we can do."

The Global Partnership has the potential to establish a coordinated nonproliferation effort with a global reach. This is reflected in the substantial resource commitments that the G-8 allies have set as their goal to address proliferation threats in Russia, and in the six principles for action that the G-8 agreed to in their June 27th statement. These principles provide measures that all states can look to as they fashion responses to proliferation threats.

DOE IMPACTS

The United States was moving to deal with the challenges of nonproliferation well before the establishment of the Global Partnership. The Administration has requested approximately $1 billion for nuclear nonproliferation programs in Russia and other former Soviet states for FY 2003, and is committed to maintaining that general level of commitment over the ten-year period of the Global Partnership. The Department of Energy's budget for nonproliferation programs in Russia and other NIS is approximately $443 million for FY03 and I anticipate comparable or increased funding for FY04. Thus it is clear that the United States is already making its contribution toward its Global Partnership commitment. We look forward to comparable support from our G-8 partners.

The Global Partnership will affect the Department of Energy's nuclear nonproliferation programs in many ways. While we have made enormous progress in Russia by securing hundreds of tons of weapons-usable material, facilitating the consolidation and downsizing of Russia's nuclear weapons complex, and fostering the conversion of former weapons scientists and experts to civilian activities, much remains to be done. There still exist hundreds of tons of poorly guarded weapons-grade nuclear material, a very large nuclear weapons complex that is still fading serious economic and employment hardships, and a nuclear infrastructure that continues to produce plutonium via three operating plutonium production reactors. If our allies choose—and we hope they will choose—the Global Partnership could lead to projects providing much-needed resources to areas being addressed by the Department of Energy. International funding will be especially important to support Russia's participation in the plutonium disposition program. Gaining full funding for this program is crucial to our attempts to eliminate 34 metric tons of Russian weapons plutonium, enough for over 8,000 nuclear Weapons.

Contributions by our allies would also help in other areas. For example, they would permit us to carry out the decommissioning of reactors in Russia and Kazakhstan used to produce plutonium. We have also encouraged other G-8 members to contribute to cooperative efforts aimed at preventing the hemorrhaging of WMD expertise, expediting research reactor fuel return, and securing radiological sources, and we continue to support multilateral civil nuclear reactor safety programs.

Beyond the benefit of additional resources, the visible involvement of all of the world's leading economies in cooperative nonproliferation efforts will demonstrate that securing and eliminating weapons of mass destruction and related materials is truly a contribution to global security. The challenges we face are global; the solutions must be global as well.

POTENTIAL PROBLEMS

As these brief examples make clear, the United States sees great potential benefit from the Global Partnership. But I am also a realist. In agreeing on June 27 of this year to the Global Partnership, the G-8 nations laid the foundation for expanded global nonproliferation efforts, but much work remains to be done to turn promise into performance. It will take time to realize the potential of this Partnership, and it will require leadership and persistence on the part of the United States. Our partners must match their words with financial commitments and Russia must cooperate on implementing arrangements. A key question is whether the leadership of the Russian Federation will take the implementation decisions necessary for the Global Partnership to succeed.

Through the Global Partnership the G-8 has committed to resolving the type of sensitive implementation issues that have at times impeded our ability to work effectively in Russia. The implementation guidelines call, among other things, for "effective monitoring . . . and transparency measures," for provisions to ensure assistance will be "exempt from taxes, duties, levies and other charges," and for "appropriate privileges and immunities." In implementing our programs, the Department of Energy has regularly had to address obstacles in several of these areas. For example, our efforts to expand downblending of highly enriched uranium under the Material Consolidation and Conversion Program or to move forward with other cooperative projects have been delayed by bureaucratic problems associated, in part, with issues of taxation and liability. In addition, we continue to face access problems at Ministry of Atomic Energy's (MinAtom) closed cities and serial production plants. Access restrictions hinder both our efforts to conduct our joint programs and our ability to ensure the transparency that is correctly required by Congress.

I do not mean to overstate our problems, which we are working to resolve. In general, I am pleased, with our cooperative efforts. But it would be foolish to ignore these difficulties. Some of our allies have faced similar problems that they have not yet been able to resolve. If the Global Partnership is to fulfill its potential, Russia must work with the other G-8 nations to resolve these and other issues related to liability protection, exemption from taxation, and access.

CONCLUSION

Mr. Chairman, the Global Partnership offers an opportunity to write a new chapter in cooperative non-proliferation. If we are able to bring its promise to fruition, we can help create a safer world for all humanity. Under the President's leadership, we intend to continue to work vigorously with our G-8 partners to seize this new opportunity. As we do so, we continue to be grateful for the leadership and support shown by this Committee.

Thank you for your attention, and I look forward to your questions.

The CHAIRMAN. Thank you.

Let me begin by asking you something, Mr. Brooks, that I think is important for folks to understand. You pointed out that the Plutonium Disposition Initiative relates to 34 tons of plutonium.

Mr. BROOKS. Yes, sir.

The CHAIRMAN. Enough for 8,000 nuclear weapons, roughly. Describe for the committee where the 34 tons of Russian plutonium is and what, from your perspective—and I'd invite Defense or anyone else to chime in—what the nature of the security relating to this plutonium is.

Mr. BROOKS. It's in various locations throughout the Ministry of Atomic Energy's complex. We are working—and this is an area where we've had a good deal of success—to improve the security of those facilities. Rather than give figures in terms of number of facilities, we tend to like to give figures in terms of amount of material.

We see about 600 tons of plutonium and uranium in the MinAtom complex. By the end of this year, we'll have had initial upgrades on between 80 and 90 percent of those. And we'll be starting on the more robust comprehensive upgrades. We will complete——

The CHAIRMAN. Upgrades in security?

Mr. BROOKS. Upgrades in security. We will complete the upgrades throughout the MinAtom complex by 2008, which is about 3 years earlier than I would have testified a year or so ago, as a result of a combination of the very strong support of the Congress and some work that Secretary Abraham and his counterpart have done in clearly away bureaucratic obstacles.

The CHAIRMAN. Let me tell you why I asked the question. I'm going to make a comparison that is not completely appropriate. Years ago, when we were trying to get a handle on the drug problem in the United States, we identified source countries, the type of materials they were producing, the type of activity they were engaged in, precursor chemicals and their sources, et cetera. And we found that it was an incredibly broad problem. And to be able to do everything one would ideally like to do have exceeded the resources we had available to us.

But we found there were 34 agencies within the Federal Government that had responsibility for dealing with the drug problem in America, and there was no master plan. There was no list of priorities. There was no place you could go and ask one person, what is the Federal Government's plan to deal with this problem? What are you going to attack first? Are you going to attack poppy fields or coca fields? What continent are you going to look to? How are you going to allocate your resources?

Everyone, over the past years, who has testified about the problem relating to weapons of mass destruction and vehicles that can deliver them, and the application of Nunn-Lugar funding, has said the extent of the work to be done far exceeds the resources available to do it. And now we are engaging, in a very positive way, the energies, and hopefully, the funds of other industrial nations. As Senator Lugar said, we hope to go beyond the G-8 promise and get participation here.

But what confuses me—and this is not a criticism—is that I cannot find one place in the Federal Government and get one document that says, "These are our priorities. This is our wish list. This is where we're going to expand our limited energies and our funds, and this is and this is where we're going to try to get our allies and our friends and those who share our concern to weigh in, to be helpful." Ms. Bronson came as close as anybody to dealing with this issue.

There seems to be, to me, a disconnect between the real system and what you would get if you gave this problem to a management kid at the Wharton School and said, "How would you manage this

effort?" I would respectfully suggest they wouldn't manage it the way we're managing it. Now, granted, this is all building on an initiative that was incredibly important, started by Senator Lugar and Senator Nunn, and in an environment that's rapidly changed, and we've learned more. We've learned more about the difficulty in access, the credibility of the assertions, the bureaucratic difficulties getting there, the total amount of the offending material, et cetera.

But if I were to ask the question—I ask all three of you this—is there any one place I could go to get a single document that said, "The U.S. Government believes that the single most dangerous elements of this problem are the following, and we are attempting to match our resources to the degree to which we think a danger exists," has that kind of inventory, has that kind of list, has that kind of prioritization been done? Does one exist?

And, second, if it exists, how have we begun to use opportunity to work with our allies in dealing with what we think are the priorities?

So that's my question, the only question I'll ask you, Is there a place I could go and get one document that said, "This is our wish list based on the threat that is presented by the existence of this material"? And, two, what resources we're going to assign to that, and what we're going to seek from the Congress or interagency? And, three, how do we begin to interface with our allies who are only now coming to grips with this by virtue of their recent commitment?

Mr. BROOKS. With respect to nuclear materials, the one place you can go is me, under the supervision of the Secretary of Energy, because that's clearly our responsibility. We do have an overall strategy, and your question reminds me that we may not have done as good a job about setting it forth in a written form, so let me describe it.

The first part of the strategy is to stop making the stuff; in particular, to stop making it in the Russian Federation. There, we seek to shut down the 3 remaining plutonium production reactors, and we seek allied cooperation to make that happen sooner.

The second thing is to take what exists and try and consolidate it. We're spending about a quarter of the material protection, control, and accounting funds in trying to consolidate material, both within sites and among sites.

Third is to guard the material that is consolidated. I want to talk about the Russian Federation. I'll talk about the rest of the world in a minute. There, we seek to do, first, the quick upgrades, and then the more comprehensive upgrades, and we are not now limited by money. We are limited by the ability of the Russian Federation to absorb this in a meaningful way. So there, although there may come a time when we want our allies to contribute, that's less high on my priority list for allied cooperation. And then, finally, wherever possible, to eliminate it.

Senator Lugar mentioned the HEU Purchase Agreement which eliminates HEU. An experts group which I chaired for the U.S. side was chartered by the two Presidents to look at other ways to eliminate materials. Our results are a foot in the door, but we are working to implement them. Plutonium production is another major

form of implementation. And there, once again, I need to have the support of my partners internationally.

Now, if you look at that chain, and then you step outside of the Russian Federation, you look at consolidation, and say, highly enriched uranium at research reactors—you want to consolidate that by moving the material back. That's a combination effort for Secretary Wolf and myself, because it has both diplomatic and technical efforts. We, as he alluded, are working to see if we can move that process a little faster. There have been problems with Russian legislation which allegedly are almost overcome. When one deals with Russian legislation, the word "allegedly" is used advisedly.

Then there is material which is part of the fuel cycle in the rest of the world. There are, for example, about 200 tons of separated plutonium in the world. The part that's not in Russia is largely in western Europe and Japan. There, the Secretary has begun a dialog with his counterparts to try and look, not at U.S. funding, but at best practices to make sure that we are all focusing on this material. Within the United States, we have long held very strong controls over materials, and we upgraded and improved those in the aftermath of last September.

So that's the strategy.

Now, priorities. I'm reluctant to give priorities, because I want to do it all. But, if you notice, I've fully funded protecting the stuff, and I am drawing on my partners for elimination and cessation of production. So that's probably a pretty good judge of the near-term priority, is to protect what exists. The long-term priority is to reduce the amount of material. That's the broad strategy, and the lead for that is, on the materials side, firmly within the Department of Energy.

The CHAIRMAN. That's very helpful. I would like to ask you, either in open forum or in a classified forum, and there is no hurry—between now and you tell me a reasonable time, a month, whatever it takes—to submit to this committee in writing those points which you outlined for me just now and, attached to each of the points you made, what are the problems related to that effort, what are the Russian absorption capacities? Be specific in the response. What is that absorption capacity problem? I'm not asking you now. How does that play out? What kind of bureaucratic problems are you running into? I'd like to have as specific an analysis as we can.

And, again, if you conclude that it needs to be in classified form, I'm not sure why it would, but if it does, if you conclude that, then you let us know. But it would be a very helpful guidepost for us in being able to follow and fully understand the nature of this undertaking. Although it would not be your purpose, you may find, as we authorize moneys, that we insist you have more than you say you need, because no one ever says they need more than the OMB tells them that they can say they need.

And, to the extent that each of you would be willing, within your sphere, to prepare a similar document for us, please do so. I know I'm making work for you, but I know it's all available. This is a matter of gathering this together. It would be a very useful three sets of documents for this committee to have, in order for us—and not that Senator; Senator Lugar, as an old joke goes, has forgotten more about this than most people are going to learn—but it would

be a useful three documents for the rest of the members of this committee, including myself, if you'd be willing to do that.

Mr. BROOKS. I'd certainly be delighted in the materials area, and we'll look at the other areas where it's appropriate.

The CHAIRMAN. And, Senator Lugar—I kind of warned him of this ahead of time—I'm going to ask, since I must go to a 12:15 meeting, and I apologize to the last panel, if you'd be willing to chair this to its conclusion.

But I'm going to submit, with your permission, to each of you, about three to five questions.

But the main thing, if you did nothing else for me, is to try to organize what we've just spoken about from each of your perspectives. That would be a very, very helpful—at least for me, and I think the rest of my committee—if you'd be willing to do that.

Yes, Mr. Wolf.

Mr. WOLF. I'd just make one point. I think some of this is also going to be evolutionary, and we can take the stock photo of where we are in the issues that we've talked about today. But after September 11, we've defined additional new problems that we're looking at, the whole question of dangerous materials and trying to get our hands around what the nature of the problem is, and some of them are almost unbounded, like BW-type problems.

The CHAIRMAN. I agree.

Mr. WOLF. But we have the whole set of radioactive materials that Ambassador Brooks didn't talk about, but radioactive materials all around the world. He mentioned it briefly in his remarks. And some of this, for instance——

The CHAIRMAN. We have a problem here in the United States with radioactive materials.

Mr. WOLF. And we're trying to use—we will try to look—we're doing an NDF survey, for instance, and I think NTI is doing something——

The CHAIRMAN. They are.

Mr. WOLF [continuing]. Looking at the nature of this problem. We're working with the IAEA. We will not be able to tell you the answer to that one this week, but we're working on it.

The CHAIRMAN. No, but you will be able to tell me where you are now.

Mr. WOLF. Yes, sir.

The CHAIRMAN. I understand, we fully understand this is not a static issue. We fully understand that this changes; for example, it could change in direct proportion to our knowledge of what terrorist groups were seeking.

Mr. WOLF. Yes, sir.

The CHAIRMAN. I mean, it may very well change. There are certain things that are clear. For example, as bad as, and as lethal as biological pathogens could be, and are, if, in fact, there were a nuclear device in the hands of a terrorist group, and/or even state actors, we know that the consequences of that, at least in terms of limiting our potential ability to respond to the actions of the state actors, would be substantial. So obviously, plutonium is a big deal. We also know that anthrax is a problem.

But if you're in a world, in which Presidents and Secretaries have to make these hard decisions. As my deceased father used to

say, "If everything's equally important to you, nothing is very important to you." And these are tough calls.

I just want to know where you are at the moment. It is not to hold anyone accountable. This is not to go back and say, "Wait a minute now, man, you said this and you didn't do, that." That's not the purpose of this. Truly. The purpose of my inquiry relates to the state of your thinking and how it's evolving. How it's evolving.

So I realize your thinking is not static, but it is, nonetheless, important that we get a sense of where you are in the game. Because you may find the three of you, what I have found after 30 years of being a United States Senator in oversight hearings: that sometimes a circumstance arises where a committee in the Congress may actually be able to be helpful in meshing what we find upon submission are slightly different perspectives.

As an old bad joke goes, you know, "We're from the Congress; we're here to help." But that's really the purpose here, for us to have a better grasp.

Secretary Bronson, you had a comment, and then I'll yield to Senator Lugar.

Ms. BRONSON. Mr. Chairman, we would be happy to respond to your request. I can give you a partial answer that has two parts. First, the administration undertook a review of all the assistance that we're providing to Russia. And, in that review, the administration identified general priorities. And that process led to the shifting of some of our priorities. I'll give you three examples.

One example can be seen in the funding requests we have for the chemical weapons destruction facility. Last year, we requested $35 million. This year, to reflect our increased priority on this project, we have requested $126 million. In the area of biological weapons, the Department last year asked for $17 million. We renotified $33 million, and this year we have asked for $55 million. We've added an additional program of $40 million to work specifically on WMD border security. In the——

The CHAIRMAN. That's exactly the point I'm making. And let me be bold enough to suggest that, in addition to the incredible and enlightened initiative of you and others at Defense, there were two other intervening acts. One was 9/11, and the other was Richard Lugar. And that is a fact. The truth of the matter is, you are all as concerned as Senator Lugar and others are about those close to 2 million artillery shells at Shchuch'ye. Were it not for Senator Lugar, there would have been no public discussion about that particular facility. Internally, you'd all discuss it. But it's kind of amazing, you know, when a spotlight is focused on something that everybody at home can understand: It is palpable. They can taste it. They understand it. They can feel it. They can sense it. They know it. They don't need to have a degree in physics. They don't have to be a United States Senator or a Secretary. They understand.

It makes no sense to have 2 million of these shells lying around, like in a Wal-Mart, on shelving and us not destroying them, no matter what else they're doing with their money. Even if they're taking every penny we're putting in there and going and building tactical nuclear weapons, it makes no sense not to destroy those chemical weapons shells. None. Zero. People get that. They didn't

need any education, except Senator Lugar showing up with a briefcase in that facility and showing it would fit in it. All of a sudden, the focus went "whoom." And that's why we like to know these things, because we may be able to help.

At any rate, I yield to the man with the briefcase.

Senator LUGAR [presiding]. Let me extend your question, and I appreciate the over-generous comments you made.

You know, as you pointed out, Secretary Bronson, the administration did request, for chemical destruction, $126 million, as opposed to $35 million last year. That's a fourfold increase, and it reflects this place, Shchuch'ye, we've been discussing today and other things that you might be able to do. That is, I suppose, our frustration, that despite the Administration request, despite all of the weeks and months of impetus to do this, it simply is not happening. That's where focus has to come now, to the Appropriation bill conference.

House and Senate people meeting now are going to determine whether a dime of that goes there, despite the fact the whole world is interested in it. And I really, seriously underline that. This is not a theoretical problem. It's a very practical political problem in Washington, DC, within miles of us today, or within a few hundred yards, maybe, of where that conference is going to meet.

But I think Senator Biden's question of Dr. Brooks is so important, because you pointed out the strategy. That is the first time I have heard such a comprehensive explanation of the strategy. So the record you have created already is a written record, which is extraordinary. Now, for all of you who are insiders, it may not be—you discuss this all the time. But, for us who are in the outside world, even though each of these elements is fairly evident, the composition of them certainly has not been, the quantification at least of these elements—you've suggested 34 tons of plutonium and 600 tons of highly enriched uranium—that may be the amount, and maybe you want to quantify that some more. As I said, the USEC people the other day thought that it was 500.

Mr. BROOKS. Senator, 500 is what we have an agreement to——

Senator LUGAR. To do. But you——

Mr. BROOKS [continuing]. 600 is the——

Senator LUGAR. What you think is out there.

Mr. BROOKS [continuing]. The material that I'm guarding in Russia. That's not all plutonium, though.

Senator LUGAR. So here we are on the threshold of potential hostilities with Iraq, over the potential of their obtaining some of this, and it makes all the difference between whether they have the potential to make a bomb this year or 5 years from now, according to intelligence estimates. They're now quite public, and we all discuss them daily. That's a huge difference.

Now, in fact, we know how much highly enriched uranium, or we think we know, is in Russia and how much plutonium. And as you say, you're trying to stop the production so that the latter figure doesn't increase. Very important, just in a logical sequence. But to quantify this helps us, that is, the Congress.

Now, it may not help you. You got beat up within the bureaucratic process, the budget process. You have requests. You ardently argue your case. As loyal soldiers, you march back down the hill,

because that's the way that it is. We don't have those constraints. We can say, in behalf of the American people, it might be wise—and, granted, this requires Russian compliance, because this is cooperative threat reduction; it's on their soil, their plutonium—we might decide we want to destroy that much more rapidly. But we might decide that even though the upgrades, as you say, are now very substantial—and they are, thank goodness, for both of our countries, Russia, the United Sates, and the world, it would take to 2008 for these to be completed. And that, at least under your work and that of the Secretary, Mr. Abraham, is now 3 years sooner than it might have been.

I've sat in briefings in which I have listened to how the upgrades were going to go, and it was like building college dormitories, one a year almost at that same degree of—not casualness, but this is not that kind of a project. It had to be, because you didn't have the money and there really was not the commitment by the last administration or this one, thus far.

All I'm saying is that, you know, given the head of steam you saw with the chairman this morning, there may be much more commitment. Once again, Russian cooperation required, because——

The CHAIRMAN. If I could interrupt you for a second to make that point. The hearings on the FBI, when the Director of the FBI sat there and said their computers would not be up to the job, that they needed to be able to deal with what happened from Minneapolis and Arizona for, I think he said 2007 or something, people went, "What? What? We are building highways and we're doing tax cuts and we're doing health insurance, and we're doing all that and you're telling me that we don't have the money to give to the FBI to do that tomorrow?"

Because if the money were totally available, that time gets cut by 75 percent. But they had it planned, based upon their budget. And when people heard that, they went, "Give me a break."

Now, granted, it was all before us anyway. You know, it was all laid out there. But what you can help us do, for us, is help us be able to explain to our colleagues. I believe, for example, if we went to the floor and said, look, folks, it's going to cost an extra $10, $20 billion to front end load within the next 18 months to increase the destruction of the plutonium stockpile by whatever—I'm making the numbers up, because I don't know what they are—by 75 percent, and we made the case on the floor, we'd get the $20 billion.

But you all have to operate, as planners, based upon what you anticipate—what you're told you are likely to be able to get. All we need to know is what your timeframe is. And we may not win. We may go to the floor, and they'd say, "No, we would rather go out there and provide for building a—you know, a Lawrence Welk Museum in somebody's home state." OK, so be it, but at least we would be able to make the—I shouldn't have said that, because there is a Lawrence Welk Museum somewhere. I'm sorry. It's built. At any rate——

You understand what I'm saying here, OK? But the point is—and I will stop with this—it makes a gigantic difference, because our colleagues who don't do this every day, any more than I do health care every day, not being on that committee. Our colleagues, if they

knew what the danger was relative to the amount of money to deal with that danger, they may make a different decision.

And the separation of powers deal, it is ours to propose. The President can do it, too. But we have it fully within our authority to say, "Mr. President, we love you. We're going to give you more money to do it faster. You may not like that, but that's our priority." Just like the President is—he gets to propose Justices and Secretaries, we get to dispose. It's a flip here.

And so it's really very important. And, again, if you think we're exaggerating, think of when Director Mueller sat there and said, "By the way, we won't be able to have—even have Internet connections among"—or excuse me—"e-mail among our own people for the next"—whatever the heck he said, you know, *x* number of years.

People went, "Wait a minute. My company does that. I'm going to go out of business if I don't get mine upgraded."

And we may go out of business, in a different way if we don't upgrade ours.

And so that's, sort of, the context, in case you think we're exaggerating our ability with your help to be able to maybe do the job, help you front-end load the job. You sit there, because, look, if I go to bed staring at the ceiling sometimes wondering about this, each of you go to bed every night confident you're doing your best, but staring at the ceiling going, "Whoah, whoah." We may be helping you sleep a little better.

Senator LUGAR. Mr. Chairman, let me just say parenthetically that the President of the United States, two Presidents ago, did not ask for the Nunn-Lugar Act. It happened here. You've had to struggle with that ever since. But, nevertheless, you're doing so remarkably.

The CHAIRMAN. I apologize to the third panel. I really do. But thank you, Senator.

Senator LUGAR. Let me just mention——

The CHAIRMAN. By the way, this may be the only committee in the U.S. Senate where a Democrat would leave a Republican in charge of the whole operation.

Senator LUGAR. Thank you. I thank the chairman.

Let me just say, Dr. Brooks, you have been negotiating with the Russians for a long time. I remember visits with you during your START II negotiating days, long, tedious days with Russian counterparts across the table, so you know these subjects extraordinarily well. And this is why we are imposing upon your good nature today, it's because we understand you know a whole lot about it, much more than we do.

In order to make the arguments that Senator Biden has suggested, we really need to know more, and we think we can be helpful without causing difficulty for you. But we are sincere in saying we think are colleagues really are of a mind in the same way that our intelligence committees, and I'm part of that joint inquiry, have been inquiring, how in the world do we upgrade our intelligence in this country? There is a very great desire on the part of the Congress. But in order to channel that constructive element, we need the expertise of people who have hands-on, who are working the problems.

And there's no doubt in my mind we're talking about something here that shares that same degree of enthusiasm. If we knew how to get through the quantities of materials—and you've stated the priorities, how to help you enhance your success—I think we can be helpful. And, as you can tell, there's a certain degree of bipartisan support in this committee and, I think, elsewhere to do that.

Let me just say, first of all, Secretary Wolf, you mentioned specifically the Kirov situation, and that is a good case in point. Although I did not enter the specific building suspected of agent production at Kirov 200, I did visit with persons who have worked there. They had moved down the street, and they conveyed to us everything that's going on up the street. We had an agreement in hand, an ISTC agreement; our State Department is responsible for that. And we signed that with the university people that very day. The people—the former employees already had an ISTC agreement, and, therefore, as you say, they had been working for a few months on very vital projects, such as how to protect against biological threats and various other things to which they could contribute a lot of expertise.

So even within Kirov, already, ISTC is at work, in ways that give us a full ability to deal with these people. By "us," I mean, not just Senators, but members of the staff, the Departments of Defense and State and Energy as they come into the situation.

And, Secretary Bronson, behind you is Colonel Jim Reid today, and I just must pay tribute to him, because he has been a faithful traveler up and down Russia for years, understands these questions remarkably well, and has been a tremendous informant for me, and I appreciate the strong partnership that you have with all of your staff, but I wanted to mention specifically Colonel Reid.

Let me mention also that, in the case of the highly enriched uranium, even the troubles we've had with USEC and our own Government over the years are probably never going to be over. We live in a real world in which the purchase of highly enriched uranium sometimes conflicts with commercial interests, people dealing with uranium in our own country. In the State of Kentucky, for example, this has risen to the fore. And I compliment those who have tried to work out formulas now, a flexible formula for the price, and the Russians have cooperated in working this out, so that we are now coming into a much better flow in terms of offering and purchase. And that the public, by and large, can't follow any more than most of us can, because it's extremely complex, but extremely important.

Literally, this highly enriched uranium is being blended down to low-enriched uranium and being utilized by nuclear power plants in the United States.

Plutonium has been a tougher thing. Our colleague Senator Domenici, as you know, is very active in this, and he's assured me in the next Congress he wants to be even more active. He's leaving the Budget chairmanship. He's coming over now to the Energy Committee, either as chairman or ranking member, depending upon the election. So he will be a vigorous partner with us, as you may know.

But the Russians that we've visited with over the past few years have been reluctant to destroy plutonium, and this is why the large Mayak storage facility has been created for storage of a lot of it.

Now, your progress in moving toward disposition of it, whatever it may be, is tremendously important. And, once again, not well understood, but plutonium is not as easily converted as highly enriched uranium to some other purpose, but tremendously important in terms of the material for, not just Iraq, but anybody else who may come along in the war against terrorism. Or al-Qaeda cells, wherever they may be, if they try to work up something.

So we're going to be at this, I think, for a period of time as it relates to this war against terrorism we are in. It's not projected to 2008. It's happening now. So that does change our perspective, I think, very substantially.

Let me just say, finally, in the same spirit the chairman has asked Secretary Brooks to, sort of, write something up, I would request that both Secretary Bronson and Secretary Wolf. We really want to have a responsible set of proposals. We're not going at this point, late in the session, to be rewriting the act, because we're beyond that point. We're trying desperately to get the appropriation bills finished constructively now, and, likewise, authorization. But there is, as you can tell in this committee, tremendous enthusiasm for a comprehensive revision of this at the beginning of next session, and we want to work with the administration.

This is why I've cited, because they're not confidential, these two meetings with the President of the United States in which I've had an audience, and I appreciate the generosity of the President taking his time to understand the same things we're saying publicly to you today. He absorbs this. He wants it to happen, and he's tried to convey that.

Now, our bureaucracy is difficult, too, and to get that message all the way through is trying, but I want to help him, and he knows that, and so we're working together.

I thank all three of you for your testimony and, hopefully, for the papers you will prepare in the next few weeks so that we're ready for the next session.

Thank you.

The chairman would like to call now the third panel, Mr. Kenneth Luongo, executive direction of the Russian-American Nuclear Security Advisory Council of Princeton, New Jersey, and Ms. Laura S.H. Holgate, vice president for Russian/NIS Programs for the Nuclear Threat Initiative in Washington, DC.

We welcome both of you. Thank you for your patience, although the hearing, I think, has provided a good prelude for your testimony. And we appreciate the expertise that both of you bring to this. I'd like for you to testify in the order that I introduced you.

First of all, Mr. Luongo, would you offer your testimony?

STATEMENT OF KENNETH N. LUONGO, EXECUTIVE DIRECTOR, THE RUSSIAN-AMERICAN NUCLEAR SECURITY ADVISORY COUNCIL, PRINCETON, NJ

Mr. LUONGO. Thank you, Senator Lugar, and thank you for the invitation to testify today.

I really applaud the committee for holding this hearing. I think the subject is absolutely essential. And, as both you and Senator Biden alluded to, high level support and attention from the Congress is essential, and this committee has been quite good in that regard.

I have a formal statement, I ask that it be submitted for the record.

Senator LUGAR. It will be published in full.

Mr. LUONGO. Thank you. My testimony is about two different subjects. One, is the importance of threat reduction, and, the second, is the Global Partnership, including financing and prioritization.

The Cooperative Threat Reduction program has produced significant and quantifiable results, which are all the more remarkable because of the circumstances in which the program has had to operate. There is intense collaboration with ministries and institutes that, a decade ago, were enemies.

We've got approximately 6,000 nuclear warheads that have been removed from deployment, 400 missile silos destroyed, and almost 1,400 ballistic missiles, cruise missiles, submarines, and strategic bombers that have been eliminated. The transportation of nuclear weapons is more secure. The storage and the security of nuclear materials has been improved. On the human side, there's almost 40,000 weapons scientists in Russia and the other FSU states that have been provided with some peaceful research or commercial projects to work in.

So there are many, many statistical measures of the importance of this work. But, beyond the statistics, there's also the political importance of this work in U.S.-Russia relations and, in terms of the numerous interactions between U.S. and Russian scientists, military officers, and political officials. I think that these issues provide an intangible benefit of this work that is not well understood, either in the public or perhaps in the political arena.

But the news is not all good on threat reduction, Senator, as you know and you have alluded to. We have some essential agenda items which are lagging, and, in some cases, work has come to a virtual standstill. One example is this Cooperative Threat Reduction program where the CTR certification dispute stopped new contracts from being written in the spring and early summer. Then there was a temporary waiver that allowed work to begin again. Now, at the end of the fiscal year, we have a stoppage yet again.

The restrictions on chemical weapons destruction in Shchuch'ye have created a serious crisis and may result in the termination of the project if it is not resolved. Access and transparency has been alluded to many times today. These issues are impeding both warhead and fissile material security efforts. And the redirection of weapons scientists is not producing lasting and career-changing employment opportunities, which, in my view, is a very essential issue.

On the bioweapons side, since we don't know everything that we would like to know, our information baseline is incomplete. As a result, it's not clear that we're managing this threat to the degree that we would like to do so.

With all of these problems and successes up to this point, we now have a major new opportunity with the global partnership. While the principles of the agreement are quite broad, most of the focus has been on what projects would be implemented in Russia and the FSU.

The first priority that is obvious from this initiative is the issue of identifying funding. And the number that's been alluded to is up to $20 billion over the next 10 years. The projects that have been discussed in the Global Partnership statement and in some of the meetings that have occurred since, include destruction of chemical weapons, dismantlement of decommissioned nuclear nonstrategic submarines, disposition of fissile material, and the employment of weapons scientists. The assumption, obviously, is that the United States would bear about half of the $20 billion cost, because we're spending about a billion dollars a year.

If you look at the non-U.S. G-8 nations that have committed funds publicly to date, it totals only about $3.4 to $3.8 billion, so roughly about a third. If you add in what the EU has said that they would contribute, which is about a billion dollars over the 10 years, then you're roughly at the 50-percent point, or actually slightly below $5 billion dollars.

But one of the things that I think the committee should take note of is that there are certain loopholes about how contributions are credited against this $20 billion. These include the ability to count prior appropriations that are unspent against the $20 billion total. It's not clear that anybody will do that, but certainly that door is open.

Another financial question is the budget pressures on the G-8 nations. It's not clear to me where the other $5 billion is going to come from, if it must be found in national budgets. Therefore, debt swap, as you and Senator Biden alluded to, is one particular option in this regard. The passage of the Foreign Relations Authorization Act is very important in this regard. But, in my view, I think it would be a mistake if the United States decided to enter into debt for nonproliferation swap with Russia and then used that money to substitute for current appropriations. I think only debt swap funds should be used as a supplement to currently appropriated levels.

The other G-8 members, unfortunately, don't have quite the cohesive view that the United States does on debt swap. Germany, which is by far the largest creditor in the Paris Club, is owed about $20 billion. It has concerns about Russia's swapping its debt to finance nonproliferation activities. In fact, it's so concerned that it's made a commitment of $1.5 billion in new money in order to not have to go through the debt swap route, which I think is a very interesting decision.

Both Italy and France have expressed support for debt swap initiatives. Neither Canada nor the United Kingdom and Japan have taken a firm stance one way or the other, though perhaps Canada and the U.K. might be more inclined.

But perhaps most importantly, it's not clear to me what the Russian position on debt swap is. We've been hearing about some concerns in Moscow that engaging in a debt swap might hurt the international credit rating of Russia and that it could spur infla-

tion. But I'm not sure that I've seen a definitive statement on this subject.

Let me turn now to the programmatic priorities of the Global Partnership. As other witnesses have alluded to, I think the initiative has to be carefully structured and coordinated to maximize the efficient use of funds and to generate real progress. It's clear what the interests of the G-8 nations are from the Global Partnership statement, but I was in Europe last week talking to a variety of different people about this subject, and I think there are some hints, beyond what was in the statement, that some of these nations could be interested in additional activities. These include assisting with the security of nuclear material, perhaps in concert with the United States, and the physical protection of nuclear warheads.

What I think is lacking from the statements so far about what the G-8 nations excluding the United States, are interested in financing, is that there's been virtually no focus on "brain drain" and scientists. I think this is a very important problem, and I think it's going to be a persistent problem. As I understand it, there are various lists floating around Washington, not unlike your list, Senator, about what the threat reduction priorities ought to be, and that the conversion of defense facilities and the downsizing of the defense complexes is one of the high priorities on these lists. I think that it's inevitable that this downsizing is going to create additional dislocation for these weapons scientists.

We've spent a lot of time in my organization on this question of the reemployment programs for weapons scientists. While they are essential, they are not working as well as they could. It's very true that there are very few conversions of weapons scientists' careers to non-weapon work. There is definitely a lifeline that is being provided by the current programs, but the career conversion of individual weapons scientists has not been very effective. I think this is something that both the G-8 nations and that the EU itself should focus on more.

In this regard, I would like to comment on Ambassador Brooks' statement that the billion dollars that the EU may commit to the Global Partnership may be spent on plutonium disposition. I think plutonium disposition is important, but I'm not sure it's as important as dealing with the scientists issue, and I think some portion of the EU contribution should be devoted to that question.

I won't go into the details of what individual countries are doing under the Global Partnership, it's in my formal testimony, but let me just leave the committee with five questions. Perhaps they are questions that the committee already has considered, but they're questions that I think are unanswered and are critical to the future and the success of the Global Partnership.

The first is, are the projects identified for funding in the G-8 statement the most urgent global nonproliferation priorities, or should they be changed to reflect other priorities?

Second, can the G-8 effectively coordinate their activities to avoid overlap and duplication, or facilitate the implementation of key projects where the U.S. cannot or will not act?

Third, what will Russia do, both politically and financially, to make this process work efficiently and to clear away the impediments to progress that have developed over the last 10 years?

And if I could just digress for a moment, I think this is an essential issue. There is a lot of money which is backlogged in some of these key threat reduction programs because of the inability to spend it. And, in fact, the U.K. previously has committed $750 million, I don't remember what exactly it is, and now they also have committed another $120 million over a 3-year period. That $750 million is essentially being spent in support of U.S. programs because they cannot conclude an agreement with the Russians to spend it by themselves. So I think the problems of implementation in Russia are absolutely essential.

Fourth, will the European G-8 nations and Japan really be able to find $10 billion for this initiative over the next 10 years?

Finally, and perhaps most importantly, will U.S. political support for threat reduction and leadership in this area remain strong over the next 10 years, or will nagging problems and disagreements sap the strength of the agenda?

Thank you.

[The prepared statement of Mr. Luongo follows:]

PREPARED STATEMENT OF KENNETH N. LUONGO, EXECUTIVE DIRECTOR, RUSSIAN-AMERICAN NUCLEAR SECURITY ADVISORY COUNCIL

PERSPECTIVES ON THE G-8 GLOBAL PARTNERSHIP AGAINST THE SREAD OF WEAPONS OF MASS DESTRUCTION

Mr. Chairman and members of the committee, thank you for your invitation to testify before the committee today on the G-8 Global Partnership, also known as the 10 + 10 Over 10 program. I am currently the Executive Director of the Russian-American Nuclear Security Advisory Council (RANSAC), a non-profit research organization dedicated to supporting cooperative threat reduction efforts with Russia and the Former Soviet States. RANSAC works closely with many governments, particularly in the U.S., Russia, and European states, to develop new cooperative nuclear security initiatives and to ensure the timely and effective implementation of existing cooperative threat reduction programs.

I applaud the committee for holding this hearing at this time. The proliferation of weapons of mass destruction is a very serious issue and the global effort to stem this proliferation and secure and destroy existing weapons and materials requires high-level attention and scrutiny of the type that this committee is providing today.

I am pleased to address the committee today on the subject of the G-8's contributions to prevent the spread of weapons of mass destruction as I just returned from a week in Europe where I had many discussions on this subject. While the Global Partnership has very broad principles that span many global objectives, the heart of the initiative is focused initially on specific non-proliferation projects that can be undertaken with Russia. Therefore, my remarks will focus primarily on G-8-Russian non-proliferation activities.

Mr. Chairman, I will summarize my formal statement and ask that the full text of my testimony be included in the official record of the hearing.

THE STATUS OF THREAT REDUCTION

The U.S. Congress, in bipartisan action in 1991, laid the foundation for the cooperative security agenda by enacting what became known as the Nunn-Lugar program, named for its primary cosponsors, Senators Sam Nunn (D-GA) and Richard Lugar (R-IN). This initiative has since developed into a broad set of programs that involve a number of U.S. agencies, primarily the Departments of Defense, Energy, and State. The government now provides these programs with approximately $900 million to $1 billion per year.

Among the program's highlights:

- The first success came in 1992, when Ukraine, Belarus, and Kazakhstan agreed to return to Russia the nuclear weapons they had inherited from the Soviet

breakup, and to accede to the Nuclear Nonproliferation Treaty as non-nuclear weapon states. The same year, the United States helped establish two science centers designed to provide alternative employment for scientists and technicians who have lost their jobs, and in some cases have become economically desperate, as weapons work in Russia and the FSU was significantly reduced.

- In 1993, the United States and Russia signed the Highly Enriched Uranium Purchase agreement, under which the United States would buy 500 metric tons of weapons-grade highly enriched uranium that would be "blended down," or mixed with natural uranium to eliminate its weapon usability and be used as commercial reactor fuel. The two nations also established the Material Protection, Control, and Accounting program, a major effort to improve the security of Russia's fissile material, and they signed an accord to build in Russia a secure storage facility for fissile materials.
- In 1994, U.S. and Russian laboratories began working directly with each other to improve the security of weapons-grade nuclear materials, and the two countries reached an agreement to help Russia halt weapons-grade plutonium production. Assistance to the Russian scientific community also expanded, with weapons scientists and technicians being invited to participate in the Initiatives for Proliferation Prevention program, which is focused on the commercialization of non-weapons technology projects.
- In 1995, the first shipments of Russian highly enriched uranium began arriving in the United States. The U.S. and Russia also began to implement a new program to convert the cores of Soviet-designed research reactors so that they no longer use weapon-grade uranium.
- In 1996, the last nuclear warheads from the former Soviet republics were returned to Russia. In the United States, Congress passed the Nunn-Lugar-Domenici legislation, which expanded the original cooperative initiative and sought to improve the U.S. domestic response to threats posed by weapons of mass destruction that could be used on American soil.
- In 1997, the United States and Russia agreed to revise their original plutonium production reactor agreement to facilitate the end of plutonium production.
- In 1998, the two nations created the Nuclear Cities Initiative, a program aimed at helping Russia shrink its massively oversized nuclear weapons complex and create alternative employment for unneeded weapons scientists and technicians.
- In 1999, the Clinton administration unveiled the Expanded Threat Reduction Initiative, which requested increased funding and extension of the life spans of many of the existing cooperative security programs. The United States and Russia joined to extend the Cooperative Threat Reduction agreement, which covers the operation of such Department of Defense activities as strategic arms elimination and warhead security.
- In 2000, the United States and Russia signed a plutonium disposition agreement providing for the elimination of 34 tons of excess weapons-grade plutonium by each country.
- In 2001, the Congress increased the funds for critical threat reduction activities substantially above the requested amounts, including in the post-9/11 supplemental appropriations act.
- In 2002, the G-8 agreed to expand the scope, funding, and timeline for WMD threat reduction activities in Russia and the Congress again provided supplemental funding for key efforts.

These and other efforts have produced significant, and quantifiable, results—which are all the more remarkable since they have been achieved under often difficult circumstances as ministries and institutes that only a decade ago were enemies must now cooperate.

In Russia, roughly 6,000 nuclear warheads have been removed from deployment; more than 400 missile silos have been destroyed; and almost 1,400 ballistic missiles, cruise missiles, submarines, and strategic bombers have been eliminated. The transportation of nuclear weapons has been made more secure, through the provision of security upgrade kits for railcars, secure blankets, and special secure containers. Storage of these weapons is gradually being upgraded at some sites, through the employment of security fencing and sensor systems, and computers have been provided in an effort to foster the creation of improved warhead control and accounting systems.

With construction of the first wing of the Mayak Fissile Material Storage Facility, the nuclear components from more than 12,500 dismantled nuclear weapons will be safely stored in coming years. Security upgrades also are under way to improve the security of the roughly 600 metric tons of plutonium and highly enriched uranium

that exist outside of weapons primarily within Russia and improvements have been completed at all facilities containing weapon usable nuclear material outside of Russia. Through the Highly Enriched Uranium Purchase Agreement, 150 metric tons of weapon-grade uranium has been eliminated.

On the human side of the equation, almost 40,000 weapons scientists in Russia and other nations formed from the Soviet breakup have been provided support to pursue peaceful research or commercial projects.

Beyond yielding such statistical rewards, these cooperative programs also have created an important new thread in the fabric of U.S.-Russian relations, one that has proven to be quite important during times of tension. Indeed, the sheer magnitude of the cooperative effort and the constant interaction among U.S. and Russian officials, military officers, and scientists has created a relationship of trust not thought possible during the Cold War. These relationships are an intangible benefit that is hard to quantify in official reports, but they are a unique result of this work.

However, the news in threat reduction is not all good. Progress on this essential agenda has been lagging in key areas and in some projects work is at a virtual standstill. Cooperation under the Cooperative Threat Reduction (CTR) program was virtually suspended this Spring and Summer over a dispute concerning Russia's chemical and biological weapons declarations. This issue is likely to linger. U.S. restrictions on funding for chemical weapon destruction at Shchuch'ye have created a crisis that could result in the termination of the project. Access and transparency disagreements are impeding warhead and fissile material security efforts. The redirection of weapons scientists is not producing lasting and career-changing new employment opportunities. And our understanding of the Russian bio-weapons complex and its security needs are incomplete and therefore our efforts to manage this threat are lacking.

CONTRIBUTIONS FROM THE G-8 TO THREAT REDUCTION

Many of the recent G-8 summits have addressed the danger of the proliferation of weapons of mass destruction. Past summit statements have specifically focused on: nuclear reactor safety, radioactive environmental dangers, and the threat of nuclear proliferation from the FSU. However, there has been a mismatch between U.S. and other nation's financial contributions to the non-proliferation agenda. Since 1992, the U.S. has provided approximately $7 billion to nonproliferation activities in Russia while G-8 nations have spent substantially less.

Some of the key G-8 activities are:

Nuclear Reactor Safety

During the Munich Summit in 1992, the G-7 established a multilateral program for financing nuclear safety improvements for countries in Central Europe and the FSU, and in 1993 proposed that the European Bank for Reconstruction and Development (EBRD) establish the Nuclear Safety Account (NSA) to receive contributions from donor countries for the financing of short-term operational and safety improvements of civilian reactors, specifically the VVER 440/230 and RBMK-type reactors.

NSA played a critical role in officially decommissioning the Chernobyl site in December 2000. In addition to the NSA, the EBRD also administers the Chernobyl Shelter Fund (CSF). This program was established after the 1997 Denver Summit, during which the G-7, European Union, and Ukraine agreed to establish a multilateral funding mechanism to assist Ukraine to transform the existing Chernobyl sarcophagus over the destroyed Unit 4 into a stable and environmentally safe system. The objective of the program is to stabilize the existing sarcophagus and to build a confinement facility around it to isolate its radioactive materials from damaging the surrounding environment and water supplies. Stabilization is expected by 2003, while completion of the confinement is anticipated in 2006.

Nuclear Smuggling

During the 1996 Nuclear Safety and Security Summit in Moscow, the G-8 initiated the "Programme for Preventing and Combating Illicit Trafficking in Nuclear Material." The G-8 made the following pledges:

- Share and promptly disseminate information on nuclear theft and smuggling incidents on a regular basis;
- Exchange information on significant incidents in this area, especially if sensitive material is involved, and establish appropriate national points of contact for this purpose;
- Foster enhanced cooperation and coordination among national intelligence, customs, and law enforcement agencies and cooperation to ensure prompt investigation and successful prosecution in cases of illicit nuclear trafficking;

- Exchange experience and assistance to ensure safe and effective nuclear material storage, protection, control and accounting;
- Maintain effective national systems of export licensing and control, which are important to deter and prevent illicit trafficking;
- Establish training requirements pertaining to detection of concealed nuclear material, radiation protection, safe handling and transportation of nuclear material and radiation protection, for law enforcement agencies (customs, police) in accordance with their respective tasks and closely coordinate relevant training activities in this area;
- Aid the exchange of scientific information and data to permit the identification of the origin, history, and route of seized illicit nuclear material;
- Support efforts to ensure that all sensitive nuclear material (separated plutonium and highly-enriched uranium) not intended for use in meeting defense needs.

To date, the program's progress has been slow in that is has focused mostly on developing information exchange mechanisms, expanding the number of countries involved, and convening a series of conferences and development activities related to nuclear forensics. Most of the international efforts to exchange information and consult on possible responses in these areas are now being coordinated by the IAEA.

Plutonium Disposition

Also during the 1996 Summit, the G-8 began to identify possible means of international cooperation to address the management and disposal of plutonium no longer required for defense purposes. Since 1996, G-8 countries have been examining the mixed-oxide (MOX) fuel pathway and/or immobilizing plutonium. France, Germany, Canada, and Japan have all been involved in the investigation of MOX fuel fabrication in Russia.

Now that both Russia and the United States have signed an agreement to dispose 68 metric tons (34 tons each) of excess weapons-grade plutonium no longer needed for defense purposes, plans are starting to move forward. Beyond the studies, however, limited funding has been provided.

OTHER MULTILATERAL AND BILATERAL EFFORTS INVOLVING G-8 NATIONS

Besides activities undertaken through the G-8 auspices, individual G-8 nations have developed specific bilateral non-proliferation cooperation with Russia and the FSU states and are participating in other multilateral activities.

International Science and Technology Center

All of the G-8 nations are partners in the International Science and Technology Center (ISTC) in Moscow. Through September 2002, the international contributions to ISTC from the donor countries have totaled $452.8 million, for 1,625 projects. This program has, according to ISTC, provided employment to more 30,000 weapons scientists.

The European Nuclear Cities Initiative

In December 1999, Italy's Ministry of Foreign Affairs proposed a program called the European Nuclear Cities Initiative (ENCI). This program is envisioned as a complement to the U.S.-Russian Nuclear Cities Initiative (NCI) in its effort to facilitate economic development and downsizing in the Russian nuclear weapons complex. Like NCI, ENCI will address ways to eliminate the economic strain on key facilities in the Russian nuclear complex—in particular the cities of Sarov and Snezhinsk—thus eliminating a source of potential leakage of fissile materials and knowledgeable scientists to countries posing a proliferation risk. The ENCI, through a working group it has established consisting of European, Russia, and U.S. representatives, hopes to coordinate the various European countries' inputs into Russian non-proliferation projects to avoid overlap. The immediate ENCI priority is to focus on the development of a "roadmap" of pilot projects in Russia's closed nuclear cities that meet key criteria such as a demonstrated market demand, and an ability to meet international product manufacturing and quality assurance requirements. As currently envisioned, funding for ENCI projects is likely to be channeled through the European Union's Technical Assistance for the Commonwealth of Independent States (TACIS) program, the ISTC, and bilateral programs.

Plutonium Disposition

Throughout the 1990s, both Germany and France supported bilateral plutonium disposition technology development in Russia. In 1998, the two countries decided to merge their efforts under a trilateral agreement. The main objective of this program was the construction of a plutonium conversion facility and a MOX-fuel fabrication

facility capable of processing 2.3 MT of weapons plutonium each year. The project would utilize German technology and French financing. The U.S., Italy, and Belgium also planned contributions to the construction of the facility. The total cost of the project was believed to be $1.7 billion. This project was frozen when funding provided by the U.S. and France was not sufficient to meet required costs, and Siemens, the German contractor, discontinued its plans to produce the necessary equipment in 2001.

Nuclear Submarine and Fuel Management

Since the days before the Soviet Union's dissolution, Scandinavian countries, particularly Norway, have been concerned about dumping of nuclear waste in northwest Russia in the Barents and Kara Sea region. Additional concerns have focused on Russia's many retired and deteriorating nuclear reactor-powered vessels, some of which are still fully fueled, and pose a proliferation threat. In 1994, after conducting a series of studies in search of solutions, Norway developed a "Plan of Action" to address concerns of an aging Russian nuclear fleet in the region. The Plan of Action has four priority areas: 1) safety measures at nuclear facilities; 2) spent fuel management and radioactive waste issues; 3) radioactive pollution in the Barents and Kara Seas; and 4) arms-related environmental hazards.

In addition to its bilateral relationship with Russia, Norway is also involved in the Arctic Military Environmental Cooperation Initiative (AMEC), which includes the U.S., Russian, and Norwegian defense establishments. Established in 1996, AMEC focuses on environmental hazards associated with military activities in the Arctic. To a great extent, AMEC initially complemented the U.S. Cooperative Threat Reduction program, which, among other things, is assisting in the dismantlement of Russian strategic submarines. The three militaries work together on specific environmental issues associated with the removal and storage of spent nuclear fuel from nuclear submarines being decommissioned and dismantled in Northwest Russia. This spent fuel, if not properly managed, could release significant concentrations of radioactivity into the sensitive Arctic environment and ecosystems. Additionally, this nuclear fuel material poses a serious security issue.

Bilateral Activities of the United Kingdom

In addition to the roughly $36 million the United Kingdom has contributed to the Nuclear Safety Account, a new effort was launched in late 2000, in which the UK government pledged up to $120 million over three years for nuclear problems in Russia and the FSU. This budget will cover work in Northwest Russia to decommission Russian nuclear submarines, the UK commitment to plutonium disposition, security, material accountancy and physical protection projects, commitment to the international Chernobyl shelter fund and projects to assist diversity and business development in the closed nuclear cities. Within this commitment, the U.K. intends to provide $4.5 million for cooperation with closed city scientists. Concerning the decommissioned submarines, both sides hope to begin work soon on the construction of a UK-funded interim spent nuclear fuel storage facility in the Murmansk region, costing up to $7.5 million. Discussions about other projects are ongoing, pending the final establishment of a legal framework for nuclear cooperation between the UK and Russia.

Bilateral Activities of Canada

Bilateral relations between Canada and Russia on nuclear issues were established in 1989 when they signed a nuclear cooperative agreement. In June 1992, both countries launched a three-year, $30 million program called the Canadian Nuclear Safety Initiative (CNSI). The main purpose of CNSI was to enhance the short-term safety of Soviet designed nuclear power stations through technical assistance and safety and regulatory training. Canada established the Nuclear Safety and Engineering Program in which nuclear experts from Atomic Energy of Canada Limited (AECL) work directly with Russian personnel on RBMK nuclear plant management and safety procedures at a handful of Soviet-designed plants. In addition to CNSI, the Canadian government administers an internship program for high-level officials of Russian regulatory agencies to study nuclear safety issues at its Atomic Energy Control Board. Canada has also started receiving shipments of MOX nuclear fuel under the Parallex Project, which will provide technical information on the performance of Canadian Deuterium Uranium (CANDU) reactors to facilitate the disposition of excess U.S. and Russian weapons plutonium.

Bilateral Activities of Germany

The Federal Republic of Germany's most sustained nonproliferation support to Russia has focused on chemical weapons destruction. In 1993, it committed funds to the production of a facility for this purpose in Gorny, which initiated its pilot de-

struction activities this year. Germany has committed approximately $30.5 million to chemical weapons destruction in Russia. Germany also supported limited upgrades of physical security systems and analytical and accountancy capabilities for nuclear materials in the Russian Federation.

Bilateral Activities of Japan

Japan is another important contributor to enhancing nuclear security in the FSU. Most of its funding for nuclear efforts goes through nongovernmental organizations, and most of this cooperation has consisted of information exchanges and delegations, and seminars on specific topics in both countries. Japan began government-to-government cooperation with Russia in the 1990s. In 1993, the Japanese government pledged approximately $100 million to support the dismantlement of nuclear submarines in Russia, primarily focusing on the disposal of radioactive liquid waste. In June 1999, at the Cologne Summit, Japan pledged an additional $200 million for continued support of dismantlement of decommissioned submarines in the Russian Far East, conversion of Russian military resources to the private sector, and disposition of surplus weapons-grade plutonium removed from dismantled nuclear weapons. Japan's nuclear assistance can be largely broken down into four areas: 1) management of radioactive waste; 2) dismantlement of nuclear submarines; 3) maintenance of civilian reactors; and 4) fast-breeder reactor development.

Bilateral Activities of France

France's bilateral cooperation with Russia has been somewhat limited, though valuable. The government of France has provided 100 super-containers to Russia to facilitate the transport of nuclear warheads from heavy SS-18 missiles by railcar.

EUROPEAN UNION ACTIVITIES

The European Union has been identified as a potential contributor to the Global Partnership and therefore it seems appropriate to provide a brief overview of its threat reduction related activities.

Technical Assistance to the Commonwealth of Independent States

The European Union has provided over E140 million through the TACIS program for nonproliferation programs in Russia. It has provided assistance in market reform, grant assistance and research projects for weapons scientists.

Nuclear Safety

Including the funds given by EU countries of the G-8 to aid in decommissioning Chernobyl, the EU, through TACIS, has over the period of 1991-1999 committed roughly $640 million to international efforts to improve FSU nuclear safety. A total number of 650 projects have been financed, 450 projects are ongoing and another 200 are in the pipeline. The EU plans to continue its nuclear safety program in the FSU well into the next decade.

The European Union Cooperation Programme for Nonproliferation and Disarmament in the Russian Federation

This program, also known as the Joint Action Russia Programme (JARP), was formed as a result of the EU Common Strategy on Russia. Its objectives include:

- Cooperate with Russia's efforts to dismantle or convert infrastructure and equipment linked to WMD in a safe, secure, and environmentally sound fashion
- Provide a framework for an enhanced EU role in cooperative risk reduction in Russia
- Promote coordination of projects at the Member State and international levels.

Activities currently supported within JARP, as of a Council Decision in June 2001, include:

- Development of a regulatory basis by GAN for weapon-grade plutonium disposition
- Study of MOX demonstration and licensing
- Study of feasibility of immobilization of waste containing weapon-grade plutonium
- Support of the Russian Munitions Agency's efforts to fulfill CWC obligations Construction of chemical weapons dismantlement infrastructure at Shchuch'ye.

JARP's 1999-2000 budget was E8.9 million. As of July 2001, a total of E6.08 million had been allocated, including E3.2 million for plutonium disposition activities, and E2.7 million for chemical weapons activities. In May 2002, E645,000 in additional financing was added by the council to set up units of experts stationed in Brussels and Moscow who would be responsible for implementing JARP. Earlier ac-

tivities supported within JARP included facility construction at Gorny and GT-MHR development. It appears that support for these projects was discontinued.

The Northern Fleet's Lepse Vessel

Beyond reactor safety, the EU has also become involved in securing the Lepse fuel storage vessel, a program that was initiated by Norway. Between 1962 and 1981, the Lepse was used as a service ship at the nuclear icebreaker base in waters in Northwest Russia. Since then, the Lepse has been used as floating storage for spent nuclear fuel from the reactors of nuclear icebreakers. The 624 spent fuel assemblies onboard the Lepse today are under highly unsatisfactory conditions; the fuel has become partially jammed in the holding tubes and is now difficult to remove. The EU expert group appropriated $18.5 million for a technical solution to the Lepse problem. Funding was provided by the EU's TACIS program.

THE G-8 GLOBAL PARTNERSHIP

The statement at the Kananaskis G-8 Summit on the Global Partnership Against the Spread of Weapons of Mass Destruction was a major step forward for G-8 threat reduction efforts. Under this initiative, the G-8 nations committed to support specific cooperation projects, initially in Russia, to address non-proliferation, disarmament, counter-terrorism and nuclear safety issues. Since threat reduction activities had recently passed their ten-year anniversary the agreement at the Summit, that these programs should continue for another decade but with substantially more funding and participation from countries other than the U.S., has provided a framework for thinking concretely about the future of threat reduction with Russia and the FSU.

Further, the G-8 leaders called on all countries to join them in commitment to the following six principles to prevent terrorists from acquiring or developing nuclear, chemical, radiological and biological weapons; missiles; and related materials, equipment and technology:

- Promote the adoption and implementation of multilateral treaties to prevent the proliferation;
- Develop and maintain appropriate effective measures to account for and secure such items;
- Develop and maintain appropriate effective physical protection measures applied to facilities that house such items;
- Develop and maintain effective border controls, law enforcement efforts and international cooperation to detect, deter and interdict in cases of illicit trafficking;
- Develop, review and maintain effective national export and transshipment controls over items on multilateral export control lists, as well as items that are not identified on such lists but which may nevertheless contribute to the development, production or use of nuclear, chemical and biological weapons and missiles;
- Adopt and strengthen efforts to manage and dispose of stocks of fissile materials designated as no longer required for defense purposes, eliminate all chemical weapons, and minimize holdings of dangerous biological pathogens and toxins, based on the recognition that the threat of terrorist acquisition is reduced as the overall quantity of such items is reduced.

Global Partnership Funding

While these broad principles may form the basis of a global effort to control WMD, the immediate objective of the G-8 initiative is to raise up to $20 billion for these projects over the next ten years. The G-8 statement does specify projects that are of interest, including: destruction of chemical weapons; dismantlement of decommissioned nuclear submarines; the disposition of fissile materials; and employment of former weapons scientists.

The assumption is that the U.S. would bear the cost of about half the $20 billion since it is currently spending about $1 billion per year on threat reduction activities in Russia and the FSU. However, as the attached table indicates, even if the U.S. spends $10 billion over the next decade, only $3.4 to $3.8 billion—or slightly more than one-third—of the remaining $10 billion has been publicly pledged by other G-8 nations to date. If an EU contribution of $1 billion over ten years is added in then the contribution percentage is raised to almost half. But the source of the remainder of the G-8 funding is not completely clear at this point.

Further, under the terms of the statement made by G-8 leaders regarding the crediting of contributions against the $20 billion target, there are some accounting loopholes. For example, funds that are obligated to nonproliferation efforts by G-8

countries from the date of the statement can be included in the total contribution. This would allow prior appropriations made by member countries to be counted toward the $20 billion contribution.

There are numerous sensitivities regarding the G-8 initiative and the financing is chief among them. Given the budgetary pressures on the other G-8 nations it is not clear that they will be able to find substantially new money to support this initiative. Therefore, one option is to exchange Russian debt to key nations in return for non-proliferation activities in Russia as a source of meeting the $10 billion pledge.

In this regard, the passage of the Russian Federation Debt for Non-Proliferation Act of 2002 as part of the FY03 Foreign Relations Authorization Act is a welcome development. The legislation could allow the U.S. to trade up to $2.7 billion in Russian lend-lease and agricultural debt for equivalent amounts of non-proliferation investment. I applaud the Senate Foreign Relations Committee for its essential role in sponsoring and passing this legislation. However, if the U.S. decides to trade some or all of its debt for nonproliferation activities in Russia, these funds should supplement the roughly $1 billion that the U.S. is currently spending on threat reduction. These funds should not be used as a substitute for this appropriated funding. The infusion of additional funding could create new opportunity for progress on this agenda.

The G-8 member state attitudes on reducing Russia's debt burden, however, are varied. Germany, which is by far the largest creditor in the Paris Club where Russia owes them over $20 billion, has concerns about the reduction of Russia's debt. Some states, however, such as Italy and France, have both expressed support for debt reduction initiatives. Neither Canada, the United Kingdom, nor Japan have made direct statements on relieving Russia's debt, although in general international financial negotiations, the former two have tended to be supportive of debt relief initiatives like the World Bank and International Monetary Fund's Heavily Indebted Poor Country (HIPC) Initiative, whereas Japan has usually been opposed.

In addition, and perhaps most importantly, Russia's position on a debt-swap program is not completely clear. Some officials are arguing that it may hurt their international credit rating at a point when Russia has begun to manage its foreign debt sufficiently or that it could spur inflation.

Global Partnership Programmatic Priorities

Another set of issues that the Global Partnership will need to deal with is the prioritization and coordination of activities. The initiative must be carefully structured and coordinated to ensure the maximum efficient use of the funds and to generate real progress. It is clear from the attached table that the major interests of the G-8 nations other than the U.S. are in chemical weapons destruction, submarine dismantlement, plutonium disposition, and nuclear safety. Some of these interests overlap with the U.S. and some could cover areas where the U.S. is not currently focused. Coordination will be necessary to avoid duplicative spending. But there are some hints that some G-8 nations may be interested in additional activities including assisting with the security of nuclear material and the physical protection of sub-strategic warheads.

What is lacking, however, in the statements by G-8 nations on the projects that they want to fund, is an urgent focus on brain drain and the redirection of former weapons scientists. This is a persistent problem that will increase in importance in coming years. In recent months there have been clear indications that the conversion of defense production facilities in Russia ranks very high on Washington's list of non-proliferation priorities. Such a focus will generate more excess weapons scientists.

To date, the re-employment programs for weapons scientists, while essential, are not working well in any of the WMD complexes in Russia and the FSU. While some European G-8 nations believe that the issue of scientist conversion is to be dealt with at the EU level, it is clear that no G-8 country or the EU is doing enough in this area. It has been reported that the EU is to contribute $1 billion to the Global Partnership and it has been speculated that these funds may be primarily utilized for plutonium disposition. Addressing the redirection of weapons scientists is an equal if not greater priority than plutonium disposition and the EU and individual G-8 nations should seriously consider providing substantial funding for this purpose.

Besides the U.S., Germany, Canada, and the U.K. have spelled out their Global Partnership contributions in the greatest detail to date. In Canada the top program priority is the security and disposition of submarine fuel.

For Germany the top three priorities are facilitating chemical weapons destruction at Kambarka, submarine dismantlement, and securing nuclear materials and waste. While Germany has been active in plutonium disposition in the past, the re-

cent election has made German participation in MOX-based plutonium disposition impossible. Germany will utilize a pre-existing agreement with Russia to implement its programs.

The U.K. has increased its participation in threat reduction activities over the past few years, previously approving $125 million over three years. But at the Kananaskis Summit, the U.K. committed another $750 million over 10 years. The top U.K. priorities are nuclear safety and security, plutonium disposition, and submarine dismantlement and disposition. However, the U.K. has run into substantial difficulty in finalizing an agreement with Russia that would exempt British funds from taxes and protect the country from liability in nuclear projects. As a result, some of the original $125 million is being spent on U.S.-developed projects and the expenditure of the promised $750 million awaits the finalization of the agreement.

The experience of the U.K. raises questions about how Russia will improve the overall environment in which threat reduction operates. Financial transparency, facility access, and legal protections are all key issues that are impeding many threat reduction efforts among the G-8 nations and the EU. There is also a question about the structural ability of Russia to absorb a potential doubling of threat reduction funding. Only Russia can address these issues authoritatively. Therefore, strong political will is necessary in that country to ensure that the G-8 initiative is kindled to life and that it thrives.

CONCLUSION

In conclusion, I would leave the committee with five questions that I believe are not yet answered about the G-8 Global Partnership.

- Are the projects identified for funding in the G-8 statement the most urgent global non-proliferation priorities or should they be changed?
- Can the G-8 effectively coordinate their activities to avoid overlap and duplication or facilitate the implementation of key projects where the U.S. cannot or will not act?
- What will Russia do both politically and financially to make this process work efficiently and to clear away the impediments to progress that have developed over the past ten years?
- Will the European G-8 nations and Japan really be able to find $10 billion for this initiative over the next 10 years?
- Will U.S. political support for threat reduction and leadership in this area remain strong over the next ten years or will nagging problems and disagreements sap the strength of this agenda?

The answers to these questions are not clear at this point but the answers will determine whether the G-8 Global Partnership will be a catalyst for renewed enthusiasm and real progress in threat reduction.

THE 10 PLUS 10 OVER 10 INITIATIVE: CONTRIBUTIONS AND PROPOSED PROJECTS

State	Reported or Planned Contributions	Russia's Paris Club debt ($ billions)	Projects	Notes
Germany	$1.5 billion [1]	20.2	CW dismantlement at Kambarka; submarine dismantlement; securing of nuclear material and waste; plutonium disposition.[2]	Germany will not participate in the MOX aspects of plutonium disposition.
Italy	$400 million	7.0	Submarine dismantlement; CW dismantlement.[3]	These projects were discussed in a recent Russia-Italy inter-MFA meeting.
U.S.	$10 billion [4]	3.7	Continuation of existing activities at approximately $1 billion per year; additional activities may include new efforts to reduce excess nuclear materials.[5]	
France	N/A	2.0		
Japan	$200 million [6]	2.0	Dismantling the Russian nuclear arsenal; plutonium disposition.[7]	Japan has conditioned its provision of assistance within the G-8 framework on strict accountability requirements. Japan stated that 50% of its contribution should be put aside to help set up an international organization for surplus plutonium disposition.
Canada	$600 million [8] to $1 billion [9]	.8	Submarine dismantlement,[10] security and disposition of submarine fuel.	The $650m source indicates that this would be provided in $65m increments over 10 years.
U.K.	$750 million [11]	.6	CW destruction; employment of former weapons scientists; submarine dismantlement; plutonium disposition; nuclear reactor decommissioning; MPC&A; nuclear safety.	The $750m will be spread over a decade. The U.K. has conditioned sub dismantlement aid on its control of fund allocations and permission to analyze the entire dismantlement process. The Russian MFA is resolving these conditions. The employment of scientists and CW destruction were highlighted in addition to sub dismantlement by PM Blair in a speech to Parliament as priorities for the G-8 plan.

THE 10 PLUS 10 OVER 10 INITIATIVE: CONTRIBUTIONS AND PROPOSED PROJECTS—Continued

State	Reported or Planned Contributions	Russia's Paris Club debt ($ billions)	Projects	Notes
EU	$1 billion [12]	N/A		This funding may primarily be used for plutonium disposition over the next 10 years utilizing the JARP.

[1] Werner Kolhoff. "Russischer Atomschrott und deutsche Geschäfte," *Berliner Zeitung.* June 28, 2002. Personal translation.
[2] *Agence France Press.* "G8 clinches deal to secure Russian plutonium: German source." June 27, 2002. Informal remarks of German official.
[3] *Ministry of Foreign Affairs of the Russian Federation Daily News Bulletin.* "Georgy Mamedov, Deputy Foreign Minister and Russia's Political Director in the Group of Eight, Meets with Gianfranco Facco Bonetti, Italian Ambassador to Moscow." September 17, 2002.
[4] Charles Digges. "G8 Pledges $20 billion to Secure Russian Weapons of Mass Destruction." *Bellona.* June 28, 2002.
[5] *"U.S.-Russia Identify New Ways to Reduce Nuclear Materials."* Washington File, U.S. Department of State, International Imformation Programs, September 17, 2002. http://usinfo.state.gov/cgi-bin/washfile.
[6] *Asahi News Service.* "Japan to sweeten Russia arms proposal." June 29, 2002.
[7] *Kyodo News Service.* "Japan backs weapons disposal with $200 million." June 28, 2002. http://www.japantimes.co.jp/cgi-bin/getarticle.pl5?nn20020628a2.htm.
[8] Mike Tricket. "Russia, Mideast steal Africa's limelight: Big bucks go to Putin, media focus on peace plan," *Ottawa Citizen.* June 28, 2002.
[9] *Reuters.* "G8 frets on ex-Soviet nuclear arms, works on deal." June 27, 2002.
[10] Nikolai Vlasov. "Canadian PM satisfied with agreement on financing elimination of Soviet weapons of mass destruction," *RIA Novosti.* June 28, 2002.
[11] Tony Blair. "Statement on the G8 Summit in Kananaskis," *Foreign and Commonwealth Office.* July 1, 2002.
[12] *Reuters,* ibid, *AFP,* ibid.

Senator LUGAR. Thank you very much.

Ms. Holgate.

STATEMENT OF LAURA S.H. HOLGATE, VICE PRESIDENT FOR RUSSIA/NIS PROGRAMS, NUCLEAR THREAT INITIATIVE, WASHINGTON, DC

Ms. HOLGATE. Thank you, Mr. Chairman, I'm grateful for the chance to give testimony this afternoon before such steadfast and visionary leadership as this committee represents on these issues. This hearing on the opportunities for a greater global security cooperation presented in the G-8 launched this June of the Global Partnership is exactly what is needed right now.

I will paraphrase my written testimony, in the expectation that it can be entered in the record.

Senator LUGAR. It will be included in the record in full.

Ms. HOLGATE. Senator Nunn went on the record this summer commending the U.S. leaders for their success in achieving this diplomatic breakthrough, and our organization has been devoted to trying to assist in the conclusion of the meeting of those pledges.

We have seen some early initiative from the G-8 nations to honor these pledges, but all member nations have much more to do to meet the high expectations they created with the bold statements at Kananaskis. The G-8 nations have given themselves and the world a fleeting opportunity to truly transform threat reduction efforts.

The stability of a $20 billion commitment over the next decade creates an entirely new fiscal environment for such activities, and the multilateral nature of the Global Partnership affords new opportunities for collaboration and synergy, which, in the whole, really is greater than the sum of its parts.

This striking opportunity could be squandered if governments see these pledges as status-quo-plus, just doing a little bit more than what they were already doing before. To fulfill its promise, the G-8 initiative should be seen not merely as an effort to address the problems, but as an effort to actually solve them. This calls for a concentrated, coordinated, and, above all, a comprehensive, strategic approach that analyzes the threats, assesses the risks, and directs resources in the most high-leverage, cost-effective way, taking into account the special capabilities and concerns of all involved countries and establishing a sensible strategic division of labor.

I'll list briefly a dozen or so new approaches beyond the essential programmatic foundation that's currently underway that was so ably characterized by the last panel. These approaches could help the G-8 fulfill their promise to go beyond this bedrock and identify greater resources in a more comprehensive, better coordinated worldwide commitment reflected in this June announcement.

I'll start with the concept of pooled funds, and this could be combined with the debt-for-program exchange, as the recent Biden-Lugar legislation has permitted.

Second, confirming the quantity and security of Russia's tactical nuclear weapons. Europe has a special interest here, because of the range of these weapons.

Third, an approach of adopting a closed city and trying to create the most comprehensive set of supports possible, whether it's re-

training, retirement, resettlement, economic development, infrastructure, job creation, demolition, and other needs with a 3-year goal, and let's start with Sarov, which has been MinAtom's first priority.

Fourth, border export controls. And here, Europe has a special role with the borders they share with Russia.

Divide and conquer on material security. Have Europe take over the civilian nuclear material facilities, and let the U.S. efforts focus on the military and weapons-related materials facilities.

A global "clean out and secure" initiative to look at the materials wherever the exist, and including the flexibility that you have so eloquently described the need for, that Project Vinca really clarified and demonstrated.

Research reactor conversion, eliminating the stocks and the need to have continuous stocks of highly enriched uranium at institutions and research facilities around the world.

Accelerating the blend-down of highly enriched uranium currently tied up in Russian weapons and storage facilities.

Perhaps an outright purchase of Russian plutonium as a way to accelerate the security and disposition of it.

Obviously, chemical weapons destruction is an area where there's been probably the most robust multilateral sharing, and there's opportunities to continue that with the U.S. focusing on Shchuch'ye or the pieces of Shchuch'ye it can do, and other nations focusing on other pieces. And the transportation questions will be a whole new set of needs as Russia makes good on its commitment to move some of those weapons to Shchuch'ye.

Biological weapons—again, Europe has a very powerful role to play here with a strong biotechnology industry.

General purpose submarines, we've discussed at some length already, but, there again, Europe and Japan are natural candidates to concentrate there.

Looking at some nonsecurity assistance applied to security needs, in the World Bank, in the EU, in other bilateral programs. Economic and humanitarian assistance programs can be targeted regionally or contextually to areas that are dealing with weapons issues, whether it's at Shchuch'ye, or whether it's at Sarov, or whether it's other areas where these humanitarian or economic-assistance needs are going to be part of the solution to the proliferation and security problems.

And I'll spend a couple of minutes on the legal impediments question, because that's a natural for a legislative body. And as much as legislatures around the world deserve credit for creating and funding existing threat-reduction programs, they've also authored huge impediments, sometimes unintentionally.

Certainly, the certification requirements and other legislative restrictions attached to the U.S. CTR programs over its decade of life were designed to have a limiting effect, owing initially to the uncertainty of how the post-Soviet Republics would relate to the United States, and, subsequently, to the continued opposition of some in Congress to the threat-reduction mission.

In this era of partnership with Russia, these limits need to be removed, and I'm very pleased to hear of your initiative on this point and would love to work with you on that.

In the realm of unintended consequences, U.S. Federal Acquisition Regulations, which were designed to assure fair access to Federal contracting dollars, not to disarm an enemy, and, more importantly, visa restrictions, more recently, designed to catch potential terrorists, have severely hampered cooperative efforts. Somehow targeted exceptions have to be written into the law so that our counterterrorism policies do not thwart the actual countering of terrorism.

Russia has some work to do here, as well. The nine implementing guidelines agreed to at Kananaskis called for reasonable measures of tax exemption, accountability, and access, liability protection, and other legal terms and conditions governing the provision of international assistance. Rather than pursuing multiple bilateral agreements, all of which require Duma ratification, Russia should modernize its own legal and regulatory structures to accommodate legitimate threat reduction cooperative needs.

As this list makes clear, each member of the G-8 has plenty to do. Some members still have their hands on their wallets and need to declare the amount of their financial commitment. Russia has reportedly already failed to apply the principles of the nine guidelines in ongoing bilateral negotiations. Reassuringly, the ad hoc group of senior officials who met recently in Ottawa appears to be the designated coordination mechanism called for in the Kananaskis Summit statement. Done right, this group will be very busy, both in meetings with each other and in pursuing their own nations' execution of their June pledges.

One way to help the annually changing membership of the G-8 remain focused on this pledge, which is, after all, one of multiple pledges in the G-8, would be to institute a year-end President's report from each departing G-8 President on the progress on the execution of these pledges.

Along with the hard work needed to forge a true G-8 partnership to address proliferation risks in Russia, it will take a determined effort to match the rhetoric of the Global Partnership into reality. The G-8 needs to develop an explicit plan for including nations like China, Pakistan, India, Brazil, and Egypt into this partnership. The G-8 also needs to move quickly to bring non-G-8 donors, like the Netherlands and Norway, into the partnership. A global partnership requires global participation. Recruiting new members must be seen as an essential and ongoing element of the effort.

I'll close with a recent conversation with one you know well, Zinovy Pak, on the chemical-weapons issue, which clarifies both the opportunities and the perils of this G-8 pledge. Dr. Pak has been instrumental in expanding Russia's own investment in its chemical weapons destruction program by sixfold in recent years, and he is attempting even further increases. Since June, however, he is challenged more and more by his colleagues, or, you might say, even rivals, in his interagency process of pulling and hauling over Federal budgets.

They are telling him he doesn't need anymore Russian rubles, because the G-8 is clearly going to take care of his chemical weapons destruction problem with dollars, Euros, and yen. This is a pernicious situation on two fronts. First, because it suggests that some officials in Russia may not yet understand that the international

commitment to funding threat reduction inside Russia depends on a continued, even intensified, demonstration of Russia's own commitment to doing its part.

Second, it reflects the degree to which Russia's threat reduction plans are currently being structured in legitimate anticipation of the other G-8 nations meeting their $20 billion pledge. A failure of commitment on one side will weaken the commitment of all sides and make all of us less secure. That's why it's so essential that all nations everywhere do their part, not only because no nation wants to carry the burden alone, but because no nation, in fact, can.

It would be, in my judgment, a great service to the cause and ideals of this partnership if this committee can continue to serve as a reminder to our government and to partner governments of the commitments they have made, the expectations they have raised, and the obligations they have embraced for making the most of this moment to increase the security of the world.

Thank you very much.

[The prepared statement of Ms. Holgate follows:]

PREPARED STATEMENT OF LAURA S.H. HOLGATE, VICE PRESIDENT FOR RUSSIA/NEW INDEPENDENT STATES, NUCLEAR THREAT INITIATIVE

G-8 PLEDGES FOR THREAT REDUCTION IN RUSSIA

Mr. Chairman and Members of the Committee: My name is Laura Holgate. I am Vice President for Russia and the New Independent States at the Nuclear Threat Initiative, a charitable organization founded by Ted Turner, co-chaired by Mr. Turner and former Senator Sam Nunn and dedicated to reducing the global threat from nuclear, biological and chemical weapons.

I thank you for inviting me to testify before the committee today on the opportunities for greater global security cooperation presented by the G-8 launch this June of a "Global Partnership Against the Spread of Weapons and Materials of Mass Destruction."

I would like to begin my testimony by quoting from a statement Senator Nunn issued this summer in response to the G-8 announcement.

"The decision by G-8 leaders to establish this global partnership represents a major step in the right direction in terms of how the United States and its partners and allies must work together to prevent dangerous groups from gaining control of the most dangerous materials—materials that could be used to commit catastrophic terrorism. The G-8 pledge to spend $20 billion over the next ten years to secure the former Soviet Union's vast stores of nuclear, chemical, and biological materials suggests that member states are willing to back their commitments with much-needed resources."

We have seen some early initiative from G-8 nations to honor their pledges, but all member nations have much more to do to meet the high expectations they created with their bold statements at Kananaskis. G-8 nations have given themselves and the world a fleeting opportunity to truly transform threat reduction efforts. The stability of a $20B commitment over the next decade creates an entirely new fiscal environment for such activities, and the multilateral nature of the "Global Partnership" affords new opportunities for collaboration and synergy, in which the whole really is greater than the sum of its parts.

This striking opportunity could be squandered if governments see these pledges as "status quo plus"—doing a little bit more to address the problem, and thus merely adding more money to existing efforts. To fulfill its promise, the G-8 initiative should be seen not as an effort to address the problem, but to solve it. This calls for a concentrated, coordinated and above all, a comprehensive strategic approach that analyzes the threats, assesses the risks, and directs resources in the most high-leverage, cost-effective way—taking into account the special capabilities and concerns of all countries, and establishing a sensible, strategic division of labor.

I would like to list briefly a dozen or so different approaches that could help the G-8 fulfill the promise of the greater resources and more comprehensive, better coordinated world-wide commitment reflected in its June announcement of the Global Partnership:

- *"Pooled" funds.* A single funding structure consolidating contributions from several nations or other funders, jointly administered by donors and recipients, would create efficiencies and—more importantly—a greater sense of partnership that is appropriate in fighting a common threat.
- *Confirming the quantity and security of Russia's tactical nuclear weapons.* We must work with Russia to ensure an accurate accounting and the security of Russia's tactical nuclear weapons. Tactical nuclear weapons have never been covered in any treaties or agreements—and that is an ongoing, decades-long mistake that requires immediate correction. Measures must be developed to provide confidence that Russian tactical warheads are secure and fully accounted for. The short range of these weapons make them particularly risk from the European and Japanese perspective, and as such, this area may be a fruitful avenue for a dedicated dialogue.
- *"Adopt a closed city" approach.* Russia's Ministry of Atomic Energy has identified the shrinkage of nuclear weapons facilities in the closed city of Sarov as its top conversion priority. Successful conversion of Sarov is the key to "right-sizing" the entire bloated Russian weapons complex. Several U.S. efforts are focusing on Sarov's challenges, but current efforts fall short of what's needed. Joint development and execution of a comprehensive plan to address the retraining, retirement, resettlement, economic development, infrastructure, job creation, demolition and other needs within 3 years would allow different partners to play to their diverse strengths in a way that covers all the necessary bases.
- *Border controls.* Given the shared borders between Europe and Russia, rigorous control over trafficking in nuclear, biological and chemical weapons should be a natural concern of the G-8 nations. Technologies and equipment developed for European borders should be extended to Russia's borders with Central Asia, and borders within Central Asia. U.S. Government programs in this area have been neither comprehensive nor well organized; a division of labor in which Europe and Japan execute the lion's share of border security assistance would free U.S. funds for other priorities.
- *Divide and conquer materials security.* Another natural division of labor comes in the security of weapons materials. The Partnership needs to act swiftly and comprehensively to secure vulnerable materials at nuclear and biological facilities. Given Russian sensitivities about military-oriented facilities—which they are only likely to open to the U.S., if anyone—G-8 partners and others should focus on upgrading security at civilian facilities, freeing U.S. resources for more intense and thorough security improvements at nuclear weapons facilities.
- *Global clean-out and secure.* The recent success of Project Vinca demonstrates both the risks posed by unneeded weapons materials around the globe but also the limitations of U.S. authorities to provide the incentives required to complete the removal and destruction of these materials. The U.S. should expand its nascent Russian Reactor Fuel Return activity with a goal of removing and destroying all excess weapons usable nuclear material world-wide, specifically including adequate flexibility to address incentives for such removal, which are likely to be as diverse as the facilities themselves. Any facilities that continue to have a legitimate use for weapons usable material must have appropriate security, which may also require assistance. Where the U.S. is not well positioned politically to approach certain holders of such material, other G-8 partners, as well as nations outside the G-8, should be called upon to provide such access and resources.
- *Research reactor conversion.* We are rapidly approaching the point where new, high-density low-enriched uranium fuels can equal or exceed the performance of highly enriched uranium fuels in research reactors. Within a decade, all research reactors using HEU should be converted, and their spent fuel secured until disposed of.
- *Accelerated HEU blend down.* Russia has produced, by some calculations, well over 1000 tons of highly enriched uranium. Of this amount, 500 tons is currently being blended down at the rate of 30 tons per year, based on market absorption capacity. This U.S.-Russia "HEU Deal" will take another decade to complete. In the mean time, Russia still has much more HEU than they could possibly need for defense purposes, based on any reasonable calculation of warhead maintenance and naval propulsion requirements. The surest way to keep this material out of the hands of those who would harm us is to destroy it at a pace faster than current markets can absorb it—buying it up, blending it down, selling it, and storing what can't be sold. This may require support to

Russia to increase its industrial blend down capacity, as well as to process and store the low enriched uranium before it is sold.

- *Plutonium purchase.* One of the challenges in reducing U.S. and Russian stocks of plutonium. The U.S. produced just under 100 tons in the last 50 years, while the total Russian production is 140 to 170 tons, and rising. Current agreement on plutonium disposition addresses equal reductions of 34 tons apiece, which will not only leaves behind enormous quantities of weapons plutonium, but leaves Russia with approximately twice as much as the U.S. The goal should be to reduce stocks to no more than the level required for both sides to maintain agreed numbers of nuclear weapons. The U.S. or a larger group of nations could purchase 100 or so tons of Russian plutonium and take responsibility for storing it securely, whether in Russia, Europe, or the U.S., and ultimately disposing of it. Such a transfer of control and responsibility would remove many of the concerns about long-term storage of plutonium pending disposition, as well as address some of the problems associated with reciprocity and matched reductions.
- *Chemical weapons destruction.* Chemical weapons destruction in Russia is probably the area of most robust multilateral participation. Based on largely ad hoc coordination, several nations are contributing tens of millions of dollars both to infrastructure needs not covered by U.S. Cooperative Threat Reduction pledges for the destruction facility at Shchuchye, but also to destruction facilities and equipment at other locations in Russia. Even assuming that the U.S. will resolve its certification problems and complete the destruction facility at Shchuchye, much more will remain to be done. The U.S. should be prepared to fund the second phase of the Shchuchye destruction facility, which will be used to destroy chemical agents currently stored at other locations. G-8 nations should also be prepared to commit additional resources to fund the transportation needs of the project. Russia will need a greater number of vehicles and improved transportation infrastructure to destroy chemical weapons and consolidate current stocks at a smaller number of sites.
- *Biological weapons.* Europe's strong biotechnology industry has a powerful role to play in addressing biological weapons proliferation risks, both in addressing its own research and industrial practices, and in supporting efforts to redirect Russia's former bioweaponeers. Industry involvement in such redirection efforts has been tentative at best, in part because of the political taint of working with former weapons facilities and staff. Governmental leadership can highlight the risks such facilities pose, and urge the bio industry to become part of the solution in government-reviewed and—sanctioned programs of cooperation.
- *General purpose submarines.* While the level of environmental and proliferation risk posed of general purpose submarines are not a matter of wide agreement, Russia considers the risks significant and has made this problem a top priority. Taking this priority seriously is part of treating Russia as a real partner, which is reason enough to address these concerns. New concepts are being developed, which look at the potential enrichment value remaining in the nuclear fuel in these reactors to partially defray the costs of dismantling them. This is a natural area of cooperation for the Nordic states near Russia's Northern Fleet, and for Japan near the Pacific Fleet.
- *Apply some "non-security" assistance to security needs.* The key to accomplishing many disarmament or nonproliferation goals lies in areas that may have nothing to do with security as traditionally defined. Whether the challenge is building a chemical weapons destruction facility from scratch, or redirecting weapon scientists to peaceful employment, or creating incentives for retired nuclear military officers to leave their last posted base, traditional economic and humanitarian assistance is an indispensable part of the package. The World Bank, the European Union, and multiple bilateral efforts all have some of these types of assistance programs underway. Wherever possible, these programs should be regionally or topically directed so that they have the additional impact of addressing security needs.
- *Remove legal impediments.* As much as legislatures deserve credit for creating and funding existing threat reduction programs, they have also authored huge impediments, sometimes unintentionally. Certainly the certification requirements and other legislative restrictions attached to the U.S. Cooperative Threat Reduction program over its decade of life were designed to have a limiting effect, owing initially to the uncertainty of how the post-Soviet republics would relate to the U.S., and subsequently to the continued opposition of some in the Congress to the threat reduction mission. In this era of partnership with Russia, these limits need to be removed. In the realm of unintended consequences, U.S. federal acquisition regulations (designed to assure fair access to federal

contracting dollars, not to disarm a former enemy) and, more recently, visa restrictions (designed to catch potential terrorists) have severely hampered cooperative efforts. Somehow, targeted exceptions have to be written into the law so that our counterterrorism policies do not thwart the actual countering of terrorism. Russia has some work to do here as well. The nine implementation guidelines agreed at Kananaskis call for reasonable measures of tax exemption, accountability and access, liability protection, and other legal terms and conditions governing the provision of international assistance. Rather than pursue multiple bilateral agreements, all requiring Duma ratification, Russia should modernize its own legal and regulatory structures to accommodate threat reduction cooperation programs.

As this list makes clear, each member of the G-8 has plenty to do. Some members still have their hands on their wallets and need to declare the amount of their financial commitment. Russia has reportedly failed to apply the principles of the nine agreed implementation guidelines to ongoing bilateral negotiations. Reassuringly, the "ad hoc group of senior officials" who met recently in Ottawa appear to be the designated coordination mechanism called for in the Kananaskis Summit statement. Done right, this group will be very busy, both in meeting with each other and in ensuring their own nations' execution of the June pledges.

Along with the hard work needed to forge a true G-8 partnership to address proliferation risks in Russia, it will take a determined effort to make the rhetoric of a "*global* partnership" a reality. The G-8 needs to develop an explicit plan for including nations like China, Pakistan, India, Brazil and Egypt. The G-8 also needs to move quickly to bring non-G-8 donors like the Netherlands and Norway into the partnership. A global partnership requires global participation; recruiting new partners must be seen as an essential and ongoing element in this new effort.

A recent conversation with a Russian leader in threat reduction cooperation, Zinovyy Pak of the Russian Munitions Agency responsible for chemical weapons destruction, clarifies both the opportunities and the perils of this G-8 pledge. Dr. Pak has been instrumental in expanding Russia's own investment in its chemical weapons destruction program six-fold in recent years, and he is attempting even further increases. Since June, however, he is challenged more and more by his colleagues (or rivals) in the interagency pulling and hauling over federal budgets. They are telling him he doesn't need any more Russian rubles since the G-8 is obviously going to take care of his problem with dollars, euros and yen. This is a pernicious situation on two fronts. First, because it suggests some officials in Russia may not understand that the international commitment to funding threat reduction inside Russia depends upon continued, even intensified demonstration of Russia's commitment to doing its part in reducing the threat.

Secondly, it reflects the degree to which Russia's threat reduction plans are currently being structured in anticipation of the other G-8 nations meeting their $20 billion pledge. A failure of commitment on one side will weaken the commitment on all sides, and make everyone less secure.

This dynamic is true not only in the natural tension between Russia and the other G-8 partners; it applies in every pairing and every possible combination of partners, within the G-8 and without. When any member of a partnership pulls back from a commitment—either because they question the importance of a task or because they believe they can leave that task to others—the natural advantages of partnership are lost, partners start calculating their investments and returns compared to those of other partners, and the objective of each partner suddenly changes—while the goal in the beginning is to "achieve a common aim," the goal in the end becomes "not doing more than your share."

That is why it is so essential that all nations everywhere do their part—not only because no nation wants to carry the burden alone, but because no nation can. It would be, in my judgment, a great service to the cause and ideals of the partnership if this committee could serve as a reminder to our government and to partner governments of the commitments they have made, the expectations they have raised, and the obligations they have embraced for making the most of this moment to increase the security of the world. Thank you.

Senator LUGAR. Thank you very much for that testimony.

Let me just mention, as a point of continuity with your last comment, that one reason that I raised with Secretary Bolton the need for United States leadership in the G-8 agreement is that things could fall apart. As Secretary Bolton pointed out, there needs to be a Russian commitment to meet their commitments made in Can-

ada. But it has to be a good-faith effort. And Dr. Pak, in the chemical weapons situation, has been doing that. The appropriation this year by the Duma was substantial, and this is real money in Russia. The politics of that, as you suggest, are that Duma members who were exhorted by Dr. Pak, and, more importantly, by President Putin, to do this may feel, as you say, that the Europeans or the Japanese may take over, that we may do more, that they don't really need to do very much. That would be pernicious.

On the other hand, the degree of our commitment is crucial. Ten billion over 10 years will extend through three more administrations and several Congresses, with people coming and going throughout that period of time. It is miraculous that cooperative threat reduction has gone on for 11 years at this point, and some feel that may have been too long and want to bring it to a halt. But we're now committed for another 10 years of this at the levels that we have reached currently. And so that's important.

What faith does everybody have in us, even as we're drawing the box and trying to think of the commitment? Well, we hope a whole lot. You know, the degree of enthusiasm that we all have, administration and Congress, assures the Russians, the G-8 and others that there is a fount of leadership here that is constant and that is reaching out to every nation in the world who ought to feel our urgency, and most do, in the war against terrorism, and the way in which weapons of mass destruction intersect that.

Let me just ask this question. Mr. Luongo, I think you made a very important point that in all of our priorities, we perhaps have not paid enough attention to the scientists and to those who have been involved in the research effort. And, as you say, many people find it very difficult to change their career plans. As a matter of fact, your observation is probably correct, that most have not. They are trying to transfer at least what they have over to somebody else.

Specifically, as I've stated earlier, at Kirov that I keep raising the scientists who were working at the defense facility down the street in the military installation moved up the street to the ISTC to our situation. Now, they're not doing the same thing. They're now thinking about how to stop an anthrax epidemic, even one in Russia, quite apart from one in the United States or somewhere else. What are the antidotes to that, or how would you detect chemical-weapon attacks upon their country. These are very constructive projects, which exercise the same expertise as when you were in the production mode, or thinking about that, but now you're discussin defense.

So that's the ideal situation: by this time, at least a hundred or so people, sort of, moving into that. Almost all the rest who are in the military thing and the bankrupt affair are hoping to get a real job with the ISTC.

Now, an ideal situation that relates to work that NTI, Ms. Holgate's organization, are doing is in the biological side. At the Ultrapure Laboratory in St. Petersburg, there are two to three hundred people—at least that was the estimate the director gave to me—who used to be involved in biological weapons research. There's not an open admission that they were doing that sort of thing, but what they described sounds very much like that. But

now they are involved in aerosol antidotes to biological attacks. They hope to develop a process that would provide total immunity against all BW threats, a comprehensive thing. This raises the interesting scientific question, in a very big thought, can you finally defeat biological warfare by working through the science of how the human body adapts—preferably before an attack, but, if necessary, after one—so that casualties are limited or so that in fact, we survive? That limits the efficacy of biological war very substantially.

Now, there is great debate in the scientific community as to whether this is doable, but it's a very important thought. And the Russians are pursuing it at Ultrapure and other places, and hopefully we're doing similar work in the United States.

But it shows that transition is possible. And in this particular laboratory, they've developed three pharmaceutical products that they are now selling commercially, principally to hospitals in Russia, making up about 50 percent of the budget of what used to be a bioweapons plant—and the other 50 percent still comes essentially from cooperative threat reduction or various other situations.

Now, I mention this because its the good news. The bad news, as you point out, is we've had maybe checks to 20,000 people, some estimate 50,000 people—not really clear what all of them are doing. This was a temporary stopgap. We know many of them are e-mailing the United States laboratories looking for work. Among other things, some of us have been trying to promote the idea of American pharmaceutical companies purchasing these plants and the scientists and employing them. And that, I think, is doable if the commercial code of Russia would be improved substantially and if they did not have as much trouble getting in to Kirov as I did, as I pointed out to the Defense Minister.

In order to resurrect this situation, really we'll have to change the system, and they showed some recognition, so there's some hope.

But I appreciate your underlining this. What further thoughts do you have as to how that particular goal of dealing with the scientists or the technicians—how would we best perform that?

Mr. LUONGO. I agree with a lot of what you said, Senator. I think that each of the weapons complexes has its own unique characteristics and its own unique problems. Obviously, biological weapons scientists' knowledge has applicability to a wide range of scientific activities, where, even if you're doing basic science, you're contributing to the overall knowledge base.

As we've analyzed the situation, part of the problem is that you've currently got, in essence, two extremes when trying to develop non-weapons employment for weapons scientists. One is basic research for scientists, which are often in the form of contracts, which extend for up to 3 years or so. However, it's not clear that there's a real global market for most of this research. At the end of the contract most of the results just go back to the agency that funded them.

On the other end, you have commercialization, which is a solution particularly pushed by the Congress. Congress has a very strong interest in commercialization but it is difficult. I'll just give you this example. We had someone with very great experience in this field come and talk to us, and he showed us the form that a

real startup business in Russia filled out on what the liabilities they saw were. This list was submitted to a venture capitalist. It included everything from "the government can take your facility and your money" to "our chief might leave" and everything in between. When you overlay on top of that all of the problems of a closed weapons city, as you said, access to facilities, a bureaucracy that still is not completely reformed, et cetra, commercialization is extremely difficult to do.

The example that you gave in Kirov, I think is really the middle ground, and that's harnessing what these scientists know to real-world problems, not just in the biological field, but in a variety of different areas such as in the environmental field and nonproliferation analysis. We've tried to contribute to this process by creating, in Sarov, the city that Laura mentioned, a center for nonproliferation analysis which has, depending on how you count it, maybe 35 people working for it, maybe 35 FTEs, probably not 35 bodies. But they're contributing. They're making some analysis that's useful. The Russian Government has gotten wind of it, and they're giving assignments to this center, as well.

So my theory is, we should keep basic science, we should keep commercialization, that both are important, but that there's this yawning chasm in the middle, which is the application of scientific knowledge to real-world problems, and that's where a greater focus needs to be.

Senator LUGAR. Well, I appreciate that comment and its applicability to our hearing theme today of this G-8 agreement, because this is something on which we really need to visit with our G-8 partners. Some of them, have been involved in ISTC and have made contributions. The United States' contribution, I think, unfortunately, verges toward 60 percent or so. It was meant to be less than 50, with other people coming in, but we are picking up the slack because it's so important to keep this going.

But we really do need some emphasis. And even as much as I feel that general-purpose submarines, the tactical nuclear weapons, the control of the fissile material are critically important, as you point out, the knowhow is important. As we are all discussing Iraq, for example, and this is not irrelevant to this issue, many people are saying our basic intelligence of what goes on in even the nuclear, quite apart from the chemical and biological dual purpose facilities in Iraq, comes from people, from scientists, people who have been in there and who try to describe to you what to look for. And when you can pack up almost all the apparatus of a biological laboratory, put it in a truck, and move it, this completely changes the parameters of an inspection regime. Many believe that there are installations there, and you overfly and you see them, or even something on the ground that an inspector might drive up to, but that might not be the case. It might be an empty building, because the same apparatus that made anthrax one day could be off making something else, elsewhere the next.

Witness, for instance, the conversion in Pokrov, a Russian agricultural laboratory, that was making anthrax to something now making Green Mama Shampoo as a commercial product. It's the same identical facility and awfully hard to point out on any one

day what you're doing unless somebody knows. So it's a terribly difficult problem.

As you pointed out, the scientists could go anywhere. But, they don't want to go anywhere. People in Kirov live in Kirov. They want to stay in Kirov. And our predicament, then, is to try to think that through, hopefully with cooperative Russians as well as our G-8 allies. I think it's a very important contribution you've made trying to outline your own experience in Sarov, which is substantial.

Ms. Holgate, let me just ask you for some further comments about the bioweapons situation. I know that your colleague, Peggy Hamburg, at NTI, has been working in this issue extensively, and board members had a briefing yesterday from a brilliant person from Johns Hopkins who described this situation. Unlike the nuclear, it takes some time and effort to do this sort of thing, but given the pace of biological life studies in the world, there is almost no limit to how much of this type of thing you can produce, almost no limit geographically as to where it can happen. A different kind of problem, in terms of quantity. And although life sciences leap ahead and with great promise for our health, for our agriculture, for other things, as it was described by this lady yesterday, there is a dark side of this. Unlike the nuclear program in which there were restrictions from the time of Werner Von Braun over in Germany or Oppenheimer here or whoever, no restrictions in the bio. All of this information is on Web sites ad nauseam. It had been the case for years with all of the upgrading of either good or evil, common knowledge among those who get into this sort of thing.

Now, Ms. Holgate, how can the G-8 situation we're talking about today, address this threat?

Ms. HOLGATE. Well, the exciting thing about dealing with the bioterrorism risk or the bioweapons risk, in contrast to nuclear, is that a lot of the things that you need to do to deal with the bioterrorism risk have beneficial impacts, even if you never have a bioterrorist incident. A lot of the information we heard from Dr. O'Toole yesterday was about improving the public health systems, improving knowledge, as you indicated, of human immune responses and things like this. Those are worth knowing even if we had certainty that a bioterrorism event would never occur. So the process of preparing for bioterrorism actually has real near-term collateral benefits that are very helpful.

And that's somewhat in contrast to the nuclear area, where the things you do to protect against nuclear terrorism are good for that, but do not necessarily contribute a lot else that needs doing.

The G-8 contribution on the bio front, I think, is exciting in a couple of different areas. The very powerful biotechnology industry in Europe—that's where a lot of the leading corporate entities are located—and the slightly more planned industries and economies of Europe give European governments perhaps slightly more influence over their industrial partners than may necessarily be the case in the United States to do perhaps some more directed research or some directed commercial activity in Russia.

The other area that could be very interesting there comes in this question—and I very much agree with Ken on the need for a diverse set of solutions to the challenge of human capital—and that is, whether it's retirement, in some cases, whether it's resettlement

in a new type of housing or in another venue, there's a lot of things that the U.S. system to deal with the human side has been moved out of by congressional restrictions or other decisions by the U.S. Government. And to be able to have a set of partners in the G-8, who have yet to grow those restrictions into their own legislation, who have alternative models of economic development, of local governance, of flexibility in other kinds of assistance that's going to be required to really deal with these problems—that, to me, is what's exciting about what the G-8 can bring to supplement the robust efforts of the United States.

But, finally, I would say, I'm not going to let the U.S. colleagues off the hook; at the November summit between U.S. President Bush and Russian President Putin, there was a statement signed to accelerate cooperation on bioterrorism preparation and activities. That commitment has yet to be fulfilled, and I was slightly dismayed at the way that Deputy Under Secretary Bronson discussed the narrowing, in fact, of cooperative activities in the area of very dangerous biological weapons within the military-to-military context. In fact, broadening that cooperation is the key to taking advantage of the information, however ill-gained, over the last several decades. Russia has information about these pathogens, about how to deal with the pathogens, how to address the health needs that come away from that, and a military-to-military, classified, quiet, but very targeted set of cooperative efforts is another key piece of the puzzle.

Senator LUGAR. Well, that's a very important suggestion, and I appreciate your making that, because you've had great experience in your travels in Russia in behalf of this Government for some time, and so you speak really from a background that is very knowledgeable.

Mr. LUONGO. Could I just make one point on that? When we talk about scientific knowledge and what we're going to do about it, it's really one area that actually could use more money. The current funding between ISTC and the U.S. programs is less than $100 million a year. It's actually substantially less than $100 million a year. Other programs like fissile material control, through the largesse of the Congress in the last fiscal year, are up around $320 million per year.

So I really do think it's urgent to focus more funding on scientific conversion. And unlike other areas where money is maybe less important right now, and access and products and actual progress are more important, I do think this is one area where more money could be very usefully spent.

Senator LUGAR. I appreciate that testimony. Both of you know, but just for the sake of the record, that it is through the ISTC that most of us have gained access to any of the biological facilities. And it's because ISTC brought the directors—on one occasions, of 13 such facilities to Moscow in a conference that Senator Nunn and I attended, that we really found the roster and began to make the visits. Now, the four military were not there at the table, and those are visits that we still need to make. But the fact is, when we went to Obelinsk over 3 years ago, we were the first visitors outside of a few surreptitious types who have been in and out of there. It was

a shocker, with barbed wire around the place, one guard at the gates, and a whole floor of pathogens.

So the first thing we talked about for an hour and a half was how to secure the place. And in our visit this year, it is secure. Now there are other problems, cooperation with the scientists there, but at least whatever they've got in there is not as likely to be misappropriated.

Now, the problem of getting an American firm involved in this, both of you have pointed out, is really prodigious given the liabilities, given the commercial codes, all the rest of it. This is something, in a government-to-government way at the highest levels, we have to continue to work with President Putin, who does want to bring about some resurrection of the Russian economy, and the economic issues for him, in many cases, are more important than the military hierarchy, and the reason the military is often overruled, in terms of the benefit of all Russians. We must continue to push on these issues.

The G-8, I think, can help a whole lot in that way. These are people who have commercial interests, and they could have interests in Russia. So it serves the purpose of employing Russians in Russia, the proliferation of knowledge and people, in addition.

But with the previous panel, we're really trying to get this down on paper, somebody to write a comprehensive plan, even if we don't have a single administrator in the government that deals with all of it. If we all had the same song sheet as to what our strategies are, what the priorities are, what the moneys are that are required, we can then make choices, as Members of Congress. Absent that, why, we're hunting and pecking in hearings like this one trying to glean bits and pieces of knowledge, sometimes promoting something on the excitement of one hearing that if you had another group of witnesses you might feel as second or third priority, not as keen as the one you just heard.

Let me just ask this question, which you raised, Mr. Luongo, which I thought was intriguing, that we don't know as much as we should about the Russian reaction to so-called debt swap plans. The assumption being that the Russians would be delighted if a good part, if billions of dollars of their debt were removed, because they're going to have trouble in the coming year in keeping afloat with regard to that debt service.

So, as you point out, you hear at least some rumblings, I gather, from Russian economists, or from where, that they might fear inflation or fear of what else, but can you amplify this somewhat more?

Mr. LUONGO. Certainly. We had a series of three or four meetings over the summertime in cooperation with the Carnegie Endowment for International Peace, where we tried to delve into how do you reshape threat reduction for the next 10 years. And obviously, because of the cash crunch, the issue of debt swap came up.

What's obvious to me is that the people in the relevant military and weapon ministries view debt swap as an opportunity. I'm not saying that the people in these ministries have good ideas for the expenditure of this money; I'm just saying that they view it as a real opportunity. But their interactions with the Finance Ministry and some of the other economic ministries in Russia have not been particularly smooth.

And some of the information that was filtered back to us was that there is some concern about whether or not this is something that the Russian Government really wants to do for a variety of different reasons. One concern is that it could affect their credit rating, because it may spur inflation. Second, if it was going to be done, would a swap for nonproliferation activities be something that the Russian Government would be interested in, or would it perhaps include other issues such as environment, or some other issues.

So as far as I know at this point in time, there hasn't been a formal statement from the Russian Government on this subject, and the debate is still a little bit unsettled over there.

Senator LUGAR. Well that may well be, but as either of you gain some intelligence about this please share it with us. Senator Biden and I have taken some leadership in trying to facilitate the debt swap business, and I think constructively, but we must make certain that we—not necessarily rectify, but maybe sharpen up our own focus if there are these situations, valid or not, there.

All I know is that we all appreciate the crisis the world economy fell into when the Russian economy went aground. Small as it may be, it generated, for many, a long-term capital crisis in this country with debt swaps derivatives. We had people coming to the IMF meeting very glumly that particular year anticipating bank failures all over the world generated by miscalculations in the Russian situation.

So leaving aside our thrust of our weapons of mass destruction situation, we have an economic predicament here that the Russians, many feel, will be alleviated by the price of oil and by the expansion of the energy markets, other revenues coming into the system that maybe were not a part of the picture 2, 3, 4 years ago. And maybe so. Maybe not.

And so we want to keep an eye on that aspect, particularly with our G-8 partners, because one reason for the G-8s to meet is often economic issues. That may be the principal reason they meet. And a derivative from this now has been this cooperation on weapons of mass destruction, which is certainly desirable.

Well, I thank both of you for staying with us through your lunch hour into the afternoon. You've offered a great deal to the committee, as always, and we thank you for coming.

Mr. LUONGO. Thank you, Senator.

Senator LUGAR. The hearing is adjourned.

[Whereupon, at 1:20 p.m., the committee adjourned, to reconvene subject to the call of the Chair.]

ADDITIONAL QUESTIONS SUBMITTED FOR THE RECORD

Additional questions for the record were submitted to Hon. Linton Brooks, Acting Administrator, National Nuclear Security Administration, Department of Energy, but responses had not be received at the time of publication on March 18, 2003.

RESPONSES OF HON. JOHN R. BOLTON, UNDER SECRETARY OF STATE FOR ARMS CONTROL AND INTERNATIONAL SECURITY, TO ADDITIONAL QUESTIONS FOR THE RECORD SUBMITTED BY SENATOR JOSEPH R. BIDEN, JR.

Question. Under the guidelines adopted for cooperative projects under the G-8 Global Partnership, all governments will take necessary steps to ensure that assistance be exempt from taxes, duties, levies, and other charges. Does this agreement apply to taxes or fees imposed by all levels of the recipient government—national regional/provincial, and local levels?

- For example, can a Russian province still levy taxes even if the federal government has provided an exemption?

Answer. U.S. assistance is exempt from taxation, customs, duties, fees and other charges under our bilateral assistance agreements with the former Soviet states, including the Cooperative Threat Reduction umbrella agreements. The exemption provisions in these agreements apply to all levels of government. Under our government-to-government agreements, the recipient national government is responsible for ensuring that such protections are observed. When agencies or officials occasionally fail to observe this commitment, we have been successful in ensuring corrective action is taken.

The Global Partnership guideline on taxation does not specifically address the issue of exemption at the regional and local levels. Other GB members have stated that they share our view that exemption from taxation and other charges must extend to all levels of government.

Question. Has President Putin indicated any intention to incorporate the guidelines for cooperative projects on future nonproliferation assistance into Russian law?

- If so, does he plan to announce a presidential decree or will he submit the guidelines to the Russian Duma for final approval?
- What are the views of the United States on the necessity of further legal steps by the Russian Government?

Answer. To date, President Putin has not indicated any plans to incorporate the guidelines into law. With respect to most guideline provisions, it appears unlikely that legislative action would be necessary. In the case of liability protections and exemption of assistance from taxation, Russian officials have argued that the provisions sought by the United States and other G-8 members are not consistent with current Russian law. U.S.-Russian agreements incorporating these provisions, including the CTR Umbrella Agreement, are being provisionally applied. Our view is that the Russian Government in order to open the way to contributions from G-8 members under the Global Partnership must take any steps required to implement the guidelines, including legislative changes if required.

Question. Under the Global Partnership, the G-8 members adopted six nonproliferation principles to guide future actions on preventing terrorists or states that harbor them from acquiring or developing weapons or materials of mass destruction. How does the United States intend to work with its G-8 partners to "turn those principles into concrete action?"

- What benchmarks will be used to review national progress?

Answer. To build upon and maximize the impact of the G-8 nonproliferation principles, the Administration is developing an action plan to operationalize them. This action plan will contain a list of goals and describe specific steps that can be taken to advance each principle. The U.S. expects to circulate the action plan for consideration by our G-8 Partners this year. We also plan to recommend a strategy for promoting adherences to these principles by all countries. We will suggest that the G-8 report on progress toward meeting the goals outlined in the action plan by the next Summit. Once the action plan is approved by the G-8, we can consider establishing national benchmarks.

Question. The first G-8 nonproliferation principle is to "promote the adoption, universalization, full implementation, and, where necessary, strengthening of multilateral treaties and other international instruments whose aim is to prevent the proliferation or illicit acquisition of such items; strengthen the institutions designed to implement these instruments."

- What is the United States doing to implement this principle?

Answer. The United States continues to support and advance the multilateral nonproliferation regimes that are currently in force. We are also working to improve their effectiveness and enforcement. Specifically, to reinforce the Nuclear Nonproliferation Treaty (NPT) and International Atomic Energy Agency (IAEA) we are seeking acceptance of Additional Protocols by all NPT non-nuclear weapon States

Parties, and working to ensure the IAEA has adequate resources to do its job. We are strengthening the Missile Technology Control Regime by focusing it on the regional aspects of missile nonproliferation and by updating its export controls in light of evolving threats, such as unmanned air vehicles. We are also pressing for universal adherence to the International Code of Conduct against Ballistic Missile Proliferation, which will establish a new supplementary international missile nonproliferation mechanism. In the Australia Group (AC), the U.S. is working to address chemical-biological weapons (CBW) programs in non-AC countries, sources of support for such programs in non-AC countries, and CBW terrorism. The Nuclear Suppliers Group is considering U.S. proposals to enhance its ability to deal with the threat of nuclear terrorism. These proposals include enhanced information sharing on approvals of Trigger List and nuclear-related dual-use exports as well as denials of Trigger List exports. In the Wassenaar Arrangement, the U.S. is seeking to strengthen controls for items on the dual-use list and to add a new small arms/light weapons reporting category for the Wassenaar Munitions List. In addition, the Administration is conducting a review of multilateral nonproliferation regimes to identify further measures that could strengthen their effectiveness in our efforts to stop WMD proliferation.

Question. For example, what is the United States doing to apply it to the Biological Weapons Convention? What detailed proposals will the United States present to the resumed BWC review conference next month?

Answer. There are currently 146 States Parties to the Biological Weapons Convention. The United States takes every appropriate opportunity in dealing with states not party to encourage them to become party to the Convention, as well as to press certain States Party to come into compliance with the Convention.

Additionally, in implementing the BWC, the United States works closely with allies to strengthen international efforts to stem the proliferation of biological weapons-related materials, equipment, technology, and know how. Examples of these efforts include the programs of the Science and Technology Centers in the former Soviet Union, which seek to redirect former biological weapons scientists to peaceful projects, and the harmonization of export controls on biological agents and related production equipment and technology in the Australia Group.

We proposed at the November 2001 Review Conference a number of measures to help accomplish the objectives of the Biological Weapons Convention and to combat the BW threat. We are working closely with friends and allies in a variety of fora—such as the BWC, the World Health Organization, the G-8, and the Australia Group—to pursue such alternative approaches which we assess will have a real impact in strengthening the BWC ban on biological weapons, including:

- Investigating suspicious outbreaks of disease;
- Sound procedures for study, modification, and shipment of pathogenic organisms;
- National criminalization of activities prohibited by the Biological Weapons Convention; and
- Sound national oversight mechanisms for security of dangerous pathogens.

The U.S. proposals, underpinned by current efforts to counter the BW threat, will continue to be the basis for the U.S. approach at the resumed Review Conference in November 2002.

Question. What role does the United States envision for the biological weapons convention in stemming biological weapons proliferation?

Answer. The Biological Weapons Convention reflects the total rejection of biological and toxin weapons by the international community. The norm it reflects provides the basis for all other efforts to stem proliferation of such weapons and to eliminate them entirely as a security threat. Although specific means to deal with the biological weapons threat may be implemented through a wide variety of different mechanisms, the Convention remains the foundation on which they are built.

Question. The G-8 Global Partnership envisions "specific cooperation projects, initially in Russia, to address nonproliferation, disarmament, counter-terrorism and nuclear safety issues." Please discuss the types of projects envisioned under the objective of counter-terrorism.

- Will these projects be related to efforts to eliminate or better secure weapons of mass destruction and related materials?
- Or might they include assistance to facilitate military or law enforcement operations to root out terrorist cells in Russia and other nations?

Answer. The impetus for the Clobal Partnership, in the wake of the September 11 attacks, is to prevent terrorists, or those that harbor them, from acquiring or de-

veloping weapons of mass destruction, missiles, and related materials, equipment, technology, and expertise. In a very real sense, nonproliferation and disarmament cooperation programs that eliminate or secure weapons and related materials help counter terrorist threats. The G8 statement identified chemical weapons destruction, fissile material disposition, nuclear submarine dismantlement, and peaceful, civilian employment of former weapon scientists as among the Global Partnership priority concerns. G-8 members to date have not discussed military or law enforcement assistance projects to identify and root out terrorists.

Question. On October 8, 2002, Senators Biden and Specter introduced S. 3079, a bill to permit the Secretary of State and the Attorney General, acting jointly to bring into the United States up to 500 Iraqi weapons scientists (plus their families) who provide reliable information on Saddam Hussein's weapons of mass destruction programs. Do you believe that this authority would help international inspectors and the United States to obtain such reliable information and to lessen Saddam Hussein's access to key weapons scientists?

- Does the Administration favor enactment of this measure before the 107th Congress adjourns?

Answer. The Administration strongly supports enactment of legislation that would accomplish the policy objectives of the proposed initiative before the 107th Congress adjourns. This legislation would support a key element of the U.S. strategy to strengthen the effectiveness of UN weapons inspections in order to disarm Iraq of its weapons of mass destruction. The ability to allow specified Iraqi citizens and their families authorized under this Act to reside in the United States would assist in determining the extent of Saddam Hussein's weapons of mass destruction programs. Specifically, it would provide an alternative means for interviewing the individuals specified in the bill free from monitoring or intimidation by the Iraqi regime.

While S. 3079, as introduced, provides a good starting point for achieving the Administration's policy objectives, the legislation would require substantial technical modifications to ensure a solid foundation for a successful program. In response to your request that we review the draft legislation, we previously provided comments in a letter dated October 23, 2002, and we understand the Justice Department may soon do the same. With these proposed modifications, the Administration could support S. 3079.

RESPONSE OF HON. JOHN R. BOLTON, UNDER SECRETARY OF STATE FOR ARMS CONTROL AND INTERNATIONAL SECURITY, TO AN ADDITIONAL QUESTION FOR THE RECORD SUBMITTED BY SENATOR BILL NELSON

Question. Russian weapons earmarked for elimination and destruction under the Moscow Treaty force limits pose additional challenges to the Russians and to the U.S., which we have typically addressed with the Nunn-Lugar Cooperative Threat Reduction programs. If we are unable to attain $10 billion as pledged from other G-8 nations, how could this affect Russia's ability to destroy weapons?

Answer. The United States, through the Department of Defense Cooperative Threat Reduction programs, has played a significant role in helping Russia eliminate strategic nuclear delivery systems, such as heavy bombers, SSBNs, and ICBM silos and mobile launchers. The U.S. originally helped Russia meet START requirements and now will help Russia implement Moscow Treaty reductions. There has been minimal assistance to Russia from other G-7 nations for strategic nuclear projects, and it would be particularly difficult for non-nuclear weapon states to be involved in this area. Therefore, the extent of funding for the Global Partnership from the other G-7 will not have an impact on Russia's elimination of strategic nuclear delivery systems.

However, $20 billion of needs have been identified for a broad range of nonproliferation requirements. Shortfalls in the $10 billion target for other G-8 members could make it more difficult for Russia to undertake some disarmament activities. Among the Global Partnership priority programs, the G-8 leaders in the Kananaskis statement identified chemical weapons destruction, nuclear submarine dismantlement, fissile material disposition, and employment of former weapon scientists. Other C-7 members have indicated they intend to focus on projects in these and other areas. The United States particularly welcomes their contributions to chemical weapons destruction and plutonium disposition.

RESPONSES OF LISA BRONSON, DEPUTY UNDER SECRETARY OF DEFENSE, TECHNOLOGY SECURITY POLICY AND COUNTER-PROLIFERATION TO ADDITIONAL QUESTIONS FOR THE RECORD SUBMITTED BY SENATOR BILL NELSON

IRAQ'S WMD ARSENAL

Question. Would each witness please discuss their Department's take on the feasibility of using these funds [$20.0 billion for G8 Global Partnership] to destroy Iraq's arsenal of weapons of mass destruction in a post-Saddam Iraq?

Answer. The G8 established the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction to address nonproliferation, disarmament, counterterrorism and nuclear safety issues in Russia and other former Soviet Union (FSU) states. Thus, it is unlikely that funds allocated for this initiative by our Allies would be used to destroy Iraq's arsenal of weapons of mass destruction. I would note that Iraq has the financial resources to fund fully this destruction, through sales of its oil and gas. With increased flexibility to use Cooperative Threat Reduction (CTR) funds for activities outside the FSU or to achieve long-standing U.S. nonproliferation goals, I could foresee the limited use of such authority to ensure that CTR expertise and infrastructure were available to an effort to destroy completely all WMD and its associated infrastructure in Iraq.

COOPERATION WITH G8

Question. I would like for each witness to comment on the existing level of cooperation on nonproliferation issues with members of the G8. Will there be more formal and frequent fora established to address nonproliferation issues in the future?

Answer. The Department of Defense (DOD) enjoys excellent cooperation on nonproliferation issues with members of the G8. For several years, we have worked with the Government of Japan to coordinate our support for elimination of Russian strategic submarines in the Far East. Japan has allocated approximately $100 million for this effort. Although Norway is not a G8 member, it has worked directly with DOD to build infrastructure to store and process low level radioactive waste and spent fuel from Russian nuclear submarines. Similarly, we have collaborated closely with several G8 and other donors to coordinate their participation in the project to destroy chemical weapons in Russia and construct the chemical weapons destruction facility (CWDF) at Shchuch'ye, Russia. Since DOD is designing and plans to construct the pilot destruction facility, we have encouraged other donors to fund "outside the fence" support infrastructure. As a result:

- The United Kingdom signed an agreement with Russia in December 2001 to provide up to $18 million for Shchuch'ye infrastructure over three years.
- Germany plans to commit $1.3 million in 2002 to fund communication lines and has equipped the Gorny facility to destroy blister agent.
- Italy has agreed with Russia to provide approximately $7.15 million over three years for Shchuch'ye infrastructure projects.
- Canada provided $70,000 in 2000 and $180,000 in 2001, and plans to contribute $3.4 million in 2002.
- The European Union (EU) committed $1.8 million in 2001 to fund infrastructure.
- France and Japan have expressed interest in providing assistance for the Shchuch'ye project.

RESPONSES OF HON. JOHN S. WOLF, ASSISTANT SECRETARY OF STATE FOR NONPROLIFERATION, TO ADDITIONAL QUESTIONS FOR THE RECORD SUBMITTED BY SENATOR JOSEPH R. BIDEN, JR.

Question. In your prepared testimony, you assert, "we have made a lot of progress with a very small budget" for nonproliferation assistance. What would you do with a larger budget?

Answer. First, the supplemental funding provided by the President from the Emergency Response Fund (ERF) last year and the increased spending requested by the President for FY 2003 base programs covering the Nonproliferation and Disarmament Fund (NDF), Export Control and Related Border Security (EXBS) Assistance, and Science Centers and Bio-Redirection programs has provided us with a larger budget than in previous years. The President also requested in FY 2003 as

in FY 2002, a $50 million voluntary contribution to the International Atomic Energy Agency (IAEA) in addition to our regular assessment.

Last year and in prior years, we managed to make good progress by focusing on the areas where we can have the greatest impact. The point is that these programs give the U.S. a very good return for the small amount of funds invested. Even at the requested level for FY 2003, the combined total still represents a very small budget relative to government spending overall. Thus we encourage your full support for the FY 2003 request.

The successful NDF project in September 2002 to remove the highly enriched uranium from the Vinca research reactor in Yugoslavia for secure storage in Russia shows how we can reduce the risk that dangerous materials will fall into terrorist hands. We also see NDF as a vehicle to assist governments, companies and universities in automating controls over the inventories and shipments of chemical, biological and radiological materials.

Our EXBS program helps foreign governments develop export and border controls that meet international standards and thus prevent WMD and their components from crossing borders. We plan to continue the EXBS program focus on former Soviet countries, while expanding to South Asia as well as key transit and transshipment states in the Middle East and Southeast Asia. In the future, we will seek to deploy sophisticated detection equipment to a greater number of significant transit countries more quickly.

Our voluntary contribution to the IAEA helps support verification of the Nuclear Nonproliferation Treaty (NPT), which is achieved through the IAEA safeguards system. In today's post 9/11 world, there are significant new demands to improve nuclear material security. As part of the war on terrorism, the IAEA initiated a review of its programs to enhance those that will help states protect against acts of nuclear and radiological terrorism (the "dirty bomb" threat). In March 2002, the IAEA Board of Governors approved an action plan that will help states around the world address the critical problem of reducing risks associated with radiological terrorism or nuclear sabotage. We agree that the safeguard system should be strengthened as recommended by the IAEA.

The 2001 White House review of Russia nonproliferation and security-related programs made several recommendations to strengthen nonproliferation efforts including the expansion of the Science Centers and the Bio Redirection programs. As discussed above, the President's actions on allocation of ERF funds and the request for FY 2003 reflects the priorities set forth in the review. [For your information, I have attached a fact sheet released by the White House that discusses the key outcome of the Administration's review.]

As you know, the Administration is currently developing the FY 2004 budget request for these programs. We are continuing our efforts to ensure that our programs are focused on priority threat reduction and that they are conducted as efficiently and effectively as possible. In some cases, this may result in an additional request for FY 2004, a reallocation of existing resources, or pursuit of alternative approaches. The Administration appreciates your attention to ensuring that necessary resources are provided to achieve U.S. nonproliferation goals.

Attachment:

FACT SHEET: THREAT REDUCTION ASSISTANCE

UNITED STATES GOVERNMENT NONPROLIFERATION/THREAT REDUCTION ASSISTANCE TO RUSSIA

- From 1992-2002, the Departments of State, Defense and Energy have funded over $4.9 billion in nonproliferation and threat reduction assistance to Russia. For FY 2002, United States Government security-related assistance for Russia totals over $870 million.
- The Administration review of nonproliferation assistance to Russia, completed in December 2001, found that most programs are effective and well run, some should be expanded and a few modified. FY02 budget allocations reflect these decisions.
- State Department FY02 funding is about $41 million for nonproliferation efforts under the Science Center, Civilian Research and Development Foundation (CRDF), Biological Weapons (BW) Expertise Redirection and Export Control and Related Border Security assistance. Some of this assistance cannot be obligated until Russia is certified under FREEDOM Support Act Title V criteria or a waiver is authorized by Congress and exercised by the President.

- Congress increased Department of Energy funding with an FY02 Supplemental in addition to FY02 appropriations. Assistance increased for Material Protection, Control and Accounting to $291 million; Plutonium Disposition to $61 million; and Initiatives for Proliferation Prevention (IPP) and Nuclear Cities Initiative to $57 million.
- FY02 funding for DOD's Cooperative Threat Reduction (CTR) Program is estimated at $400 million; with $307 million in Russian programs. CTR continued funding Strategic Offensive Arms Elimination and Chemical Weapons Destruction. CTR funds cannot be obligated until Russia is certified as eligible to receive CTR aid or a waiver is authorized by Congress and exercised by the President.
- The Administration Review resulted in direction to transfer to DOE the CTR project to eliminate weapons-grade plutonium production ($74 million) under the Plutonium Production Reactor Agreement. In FY03, DOE will fund this effort. Also, Congress directed $30 million be transferred from DOD/CTR to State for BW Redirection under the Science Centers.
- FY03 request for threat reduction and nonproliferation programs in former Soviet states is over $1 billion.

http://www.whitehouse.gov/news/releases/2002/05/20020524-16.html

Question. In your prepared testimony, you declare "we are expanding our efforts" on International Science and Technology Center (ISTC) and Bio Redirect projects. Yet the FY 2003 budget request for these programs is $52 million, while the final level of FY 2002 appropriations, including supplemental appropriations, was $81 million. Do you plan to request increased funding for these programs in FY 2004? How much could these programs usefully spend, if the funds were available?

Answer. The Science Centers—the International Science and Technology Center (ISTC) in Moscow and the Science and Technology Center in Ukraine (STCU) in Kiev—and the Bio Redirection programs are interagency efforts. The FY 2002 State Department appropriation of $81 million includes $37 million for Science Centers from NADR funds and $15 million for use by the Department of Health and Human Services, Department of Agriculture and the Environmental Protection Agency for Bio Redirection programs from Freedom Support Act (FSA) funds.

It also includes a Congressionally-directed one-time transfer of $30 million from unobligated DOD funds for a Bio Industry Initiative as part of the FY 2002 emergency response funds appropriation. This initiative supports new engagement at former biological weapons production facilities and an initiative of accelerated drug and vaccine development. DOD Cooperative Threat Reduction funding for engaging BW scientists under the Bio Redirection effort was $17 million in FY 2002. In addition to these appropriations for Science Center and Bio Redirect, individual USG agencies fund research proposals through the Science Centers' Partner Program. For example, DOE contributed about $6 million to fund IPP projects carried out through the Science Centers in FY 2002. The USG also provides assistance to help nonproliferation of weapons expertise in the former Soviet states under the Civilian Research and Development Foundation, which received $14 million in FY 2002 for this purpose. Other individual USG entities, including a number of U.S. military R&D components, several U.S. national laboratories under DOE, the National Cancer Institute of the NIH, and NASA also fund partner projects through the Centers, with a combined value of several million dollars per year.

The overall Administration request for FY 2003 for the Science Centers and Bio Redirect programs was $107 million. The State Department request of $52 million includes $32 million for Science Centers and $20 million for Bio Redirection. As a new component within the Bio Redirection program for FY 2003, State also seeks to fund an expanded engagement initiative for former chemical weapons scientists, as recommended during the Administration's 2001 NSC review of nonproliferation assistance. The FY 2003 DOD Cooperative Threat Reduction request for Rio Redirect, now appropriated, was $55 million.

The Administration is now preparing its FY 2004 budget request, which will be submitted to the Congress in February. In so doing, the Administration will consider the expected number of highly-ranked Science Center and Rio Redirect projects, along with the institutes' absorptive capacity, our oversight and monitoring resources, and the possibility of increased funding by our G7 partners under the G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction. In addition, we want to encourage the increasing awareness at the former Soviet WMD institutes of the need to be able to reform and compete in the global science market as a means of facilitating greater self-sustainability; consequently, we are beginning to shift the State Department program focus, too, toward funding more business training, valorization and patent support.

Question. Do you have enough funds and legal authority to handle the problem of Russian highly enriched uranium in other countries' research reactors? In the successful operation to retrieve HEU in Vinca at the end of August, the State Department turned to the Nuclear Threat Initiative for $5 million in private funds, but the NTI has warned that such private assistance is unlikely to be available in the future. If the Congress provides the executive branch the necessary legal authority, will you have enough funding for HEU retrieval? Is this an area where a G-8 project with other donors would make sense?

Answer. The Department of Energy has both adequate legal authority and funds to repatriate Soviet/Russian supplied HEU to Russia. Funding for this effort has recently increased dramatically. The Russian Research Reactor Fuel Return (RRRFR) program was first funded at the $1 million level in fiscal years 2001 and 2002. A $3.8 million supplemental for fiscal year 2002 has just been approved, and the President's proposed fiscal year 2003 budget of $9.5 million would appear to be without opposition. Additional funding will be needed for material transport, spent fuel management, and research reactor conversion to use of low enriched uranium in order to complete the RRRFR program.

In addition to DOE's program, the Department of State can utilize resources from the Nonproliferation and Disarmament Fund (NDF) for projects that require immediate or urgent attention and that fall within its nonproliferation mandate. Although NDF funding is limited, the NDF has sufficient legal authority to transport and dispose of nuclear materials that present a proliferation risk. For example, NDF funds will be used to provide $3.5 million to support initial shipments from and conversion of a research reactor in a former Soviet state. In some cases, to facilitate implementation of these projects, the U.S. may need to address country and facility specific requirements. For example, some of these projects may require environmental remediation. In the Vinca project, funding provided by the Nuclear Threat Initiative (NTI) addressed radioactive hazards at the Vinca Institute.

Each project presents its own opportunities and challenges; we welcome supplementary efforts from organizations such as NTI in appropriate situations as well as assistance and interest from our G-8 Partners.

RESPONSES OF HON. JOHN S. WOLF, ASSISTANT SECRETARY OF STATE FOR NONPROLIFERATION, TO ADDITIONAL QUESTIONS FOR THE RECORD SUBMITTED BY SENATOR BILL NELSON

Question. Would each witness discuss their Department's take on the feasibility of using these funds to destroy Iraq's arsenal of weapons of mass destruction in a post-Saddam Iraq?

Answer. At the Kananaskis Summit, President Bush and other G-8 Leaders agreed that the initial geographic focus of the G-8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction will be on projects in Russia, given the magnitude and urgency of the proliferation threat there. United States has also made clear that we will include our nonproliferation and threat reduction assistance work with other states of the former Soviet Union in the Global Partnership, with whom we already have agreements incorporating the Kananaskis implementation guidelines.

In the future, other countries would be able to participate in the Global Partnership by agreeing to the Kananaskis nonproliferation principles and implementation guidelines. However, Iraq is a special case. UNSCR 1284 mandates that Iraq will be liable for all costs associated with UNMOVIC and the IAEA in relation to their work to disarm Iraq of its weapons of mass destruction. This is an appropriate means to finance the destruction of Iraqi WMD.

Question. I would like for each witness to comment on the existing level of cooperation on nonproliferation issues with the members of the G-8. Will there be more formal and frequent fora established to address nonproliferation issues in the future?

Answer. The G-8 has evolved from a forum that primarily addressed economic issues to an annual meeting of leaders with a broader focus and scope. In recent years, political and security issues have grown on the G-8 agenda and since September 11, the G-8 has placed a higher priority on enhancing cooperation on nonproliferation issues. The G-8 has launched initiatives on plutonium disposition (1996 Moscow Nuclear Safety and Security Summit) and the Global Partnership Against Weapons and Materials of Mass Destruction (2002 Kananaskis Summit). It has been an effective and useful forum for nonproliferation cooperation.

There is an existing G-8 mechanism for promoting information exchange and cooperation on nonproliferation issues, the Nonproliferation Experts Group (NPEG). G-8 nonproliferation experts meet several times each year to propose possible nonproliferation agenda items for the annual Foreign Ministerial and Leaders Summit. The NPEG discusses nonproliferation priorities and pressing concerns. NPEG representatives assist in implementing the commitments made by Leaders at previous Summits.

Last year, the NPEG was mandated to consider practical steps to reduce the WMD terrorist threat and WMD proliferation. The NPEG developed a set of recommendations for preventing terrorist access to weapons of mass destruction and radiological weapons. In June, Leaders endorsed six nonproliferation principles based on those NPEG recommendations. Over the coming year, the NPEG will continue to consider areas for further work by the G-8.

RESPONSES OF HON. JOHN S. WOLF, ASSISTANT SECRETARY OF STATE FOR NONPROLIFERATION, TO ADDITIONAL QUESTIONS FOR THE RECORD SUBMITTED BY SENATOR JESSE HELMS

Question 1. What is the current state of agreement between the United States and the Russian Federation on the issue of taxation of assistance? Will this issue be resolved prior to the introduction of additional assistance? To what extent do prior commitments from the national and local Russian authorities remain unsatisfied?

Answer. Under our bilateral assistance agreements with the Russian Federation, U.S. assistance is exempt from taxation, customs, duties, fees and other charges. The exemption provisions in these agreements apply to all levels of government. Under our government-to-government agreements, the recipient national government is responsible for ensuring that such protections are observed. There is no pending taxation issue to be resolved that would impede additional U.S. funding for programs covered by these agreements, nor would we characterize commitments of Russian authorities as unsatisfied.

Question 2. What safeguards have been developed to ensure that the assistance provided is not subject to diversion? What have been the results of audits and analyses to date?

Answer. U.S. assistance to the former Soviet states is provided for specific purposes primarily in the form of goods, services and training, rather than funds. This helps minimize risks and the possibility that such assistance can be diverted.

Our assistance is provided under bilateral agreements which include protection provisions ensuring that: "Any commodities, supplies or other property provided under United States assistance programs will be used solely for the purposes agreed upon" . . . as well as provisions for audit and examination rights of the U.S. assistance provided.

We consistently exercise the rights and protections afforded U.S. assistance under such agreements to ensure our assistance is used for its intended purposes. U.S. assistance programs implement these rights in different forms—for example, some programs have routine, scheduled external and internal audits by project; others include the presence of "incountry" personnel to oversee and monitor assistance through random checks; others use "national technical means" as appropriate; some programs include various combinations of these safeguards.

In particular, I would like to address the oversight mechanisms for the Science Centers, for which I am responsible. Although the overall budget represents only three percent of overall assistance for Eurasia security programs, we take seriously the importance of safeguarding funds against diversion. Internal audits and independent outside audits by the Science Centers and by the United States and other parties provide multiple layers of oversight for grants for civilian research by former WMD scientists.

For example, International Science and Technology Center (ISTC) staff conducted financial audits on 244 projects, including 229 final audits and 15 annual audits during on-site visits to 367 participating institutes during CY2001. ISTC contracted with Deloitte Touche Tohmatsu to conduct an audit of the Center last year, while Lubbock and Fine performed the audit of the STCU. The European Union (EU) Court of Auditors conducts periodic audits at the request of the European Commission. The Department's Bureau of Nonproliferation contracts with the Defense Contract Audit Agency (DCAA) to perform financial audits of selected projects (50 projects in 2002; 60 planned for 2003), and engages scientific experts to conduct concurrent technical performance audits. Our access and audit rights extend up to three years after the end of a project.

Moreover, a recent GAO audit report (GAO-01-582), submitted to Congress in May 2001, examined the Department's role in selecting projects that meet program objectives and monitoring to assure adequate program oversight. We believe that this report and additional clarifications provided by the Department as an appendix to the GAO report present a positive picture of the Department's oversight of the program as envisioned when the Science Centers were established.

The international agreements establishing the Centers provide access to the former WMD laboratories and to the scientists, project financial records, research workbooks, and progress reports.

Financial controls constitute a second set of checks to guard against diversion. The Centers arrange for direct deposit of all U.S. and other research grants into scientists' personal bank accounts, rather than through participating governments or former WMD institutes. Secondly, procurement for all projects is handled by the Centers, rather than through the WMD institutes or project teams. Finally, chief financial officers of both institutions and other senior positions are staffed by the United States.

Results of audits and analysis suggest that for the most part, the systems of checks and controls are working well.

Audit findings have generally been positive. There continue to be some recurring problems—failure of scientists to maintain their own time records, or to record their times on a daily basis, for example—but these are usually minor problems that do not appear to involve fraud or diversion. A recent audit finding that ISTC was unable to easily match equipment procurement records with equipment inventoried at specific projects has led to the introduction of new software to obviate this problem.

Science Center financial comptrollers are advised by external auditors of all audit conditions and are required to provide corrective remedies. Science Centers staff from the Department's Bureau of Nonproliferation provide oversight for this process and attend annual conferences under DCAA auspices to discuss audit findings and solutions with chief financial officers of the centers, and to plan audits for the following year.

Similar safeguards against diversion are incorporated into other State programs implemented through the Office of Nonproliferation and Disarmament Fund (NP/NDF) and the Office of Export Control Cooperation (NP/ECC). For example, NP/ECC initiated financial audits through State's Office of the Inspector General in 2000. The OIG awarded contracts to two companies for audits of the four principal executing agencies (Coast Guard, Customs, Commerce and Energy) of the Export Control/Border Security Assistance (EXBS) Program. To date, the audits of Commerce, Coast Guard and Customs have been completed. No audit has uncovered problems of a serious nature, although auditors have offered useful recommendations for improving the program accounting procedures of each agency. An audit of the Department of Energy is in its last phase of completion and also appears to be headed toward positive conclusions.

Question 3. Have audits been conducted to ensure that funds were appropriately expended down to the second and third tier of subcontracts in the Russian Federation?

Answer. Audits of all second and third tier subcontracts are not routinely conducted, but may be identified for auditing based on contract size, type of subcontract, and a variety of risk factors.

Question 4. In what government or entity does title reside for those items of equipment that have been provided under previous and current assistance programs?

Answer. Practices vary depending on the agency providing nonproliferation assistance and the agreement under which assistance is being provided. For example, under the Export Control and Related Border Security Assistance program, the State Department holds title until a grants document is signed by both parties, then the equipment becomes the property of the grantee in the recipient country. Under some other programs, such as the Science Centers program, the U.S. agency or implementing body retains title to equipment, at least until the conclusion of activities for which the equipment was provided. In some of these situations, if the cost of returning equipment to the United States after the conclusion of the activities exceeds the value of the equipment, the U.S. agency may agree to transfer title to the host government. U.S. agencies generally impose specific conditions on these types of equipment transfers, such as stipulating that:

- the U.S. party has continuing audit and examination rights;
- none of the equipment may be transferred or sold to nations of concern;
- if equipment is sold, all proceeds will be used to finance nonproliferation efforts;

- a designated ministry or department provide the United States an annual report stating the location of the equipment, the purpose for which it is being used and, if equipment has been sold or transferred, to whom it was sold or transferred, the price and which nonproliferation programs were financed with the proceeds.

These requirements are in addition to whatever protections the United States has in umbrella and implementing assistance agreements.

Question 5. What is the current state of the Blend Down Monitoring System (BDMS), the system associated with transparency in the HEU program? Will the system provide the basis for future transparency measures in that program? If not, what measures have been accepted and implemented by the Russian Federation to achieve the same level of transparency as would be provided by the BDMS?

Answer. The BDMS is currently in routine operation at the Ural Electrochemical Integrate Enterprise (UEIE) in Novouralsk, Russia and provides transparency for the down blending of HEU at that facility. Negotiations will take place with Minatom during mid-November 2002 to revise the existing transparency Annex to include agreed procedures to implement BDMS operations at the Electrochemical Plant (ECP) in Zelenogorsk, Russia. Installation of BDMS at ECP is planned for the first quarter of calendar year 2003. We have initiated discussions for installation of BDMS at the remaining down blending facility in Seversk, Russia and currently plan to install BDMS at that facility in late calendar year 2004.

Question 6. How will U.S. assistance provided through multilateral mechanisms be audited and tracked?

Answer. U.S. policy is that nonproliferation and threat reduction assistance provided through multilateral mechanisms must be implemented according to strong guidelines that ensure that assistance is used for its intended purpose. The primary existing multilateral mechanisms are the International Science and Technology Center (ISTC), headquartered in Moscow, and the Science and Technology Center in Ukraine (STCU), which implement programs to redirect former weapon scientists and experts to peaceful civilian employment. Science Center projects are subject to a rigorous review during the proposal stage and are also subject to internal, as well as independent outside audits from the Centers. The United States also carries out audits, which have been performed by the U.S. Army Defense Contract Audit Agency. Science Centers staff and U.S. officials have access to the work sites where projects are being implemented, and have audit rights up to three years after the completion of the projects.

The U.S. would require that any new multilateral mechanisms developed to implement multilateral cooperation, such as the program for cooperation on Russian plutonium disposition, currently under negotiation, would provide for such auditing and accountability. The U.S. would also require other essential elements such as exemption of assistance from taxation, liability protections, environmental and safety conditions, intellectual property rights, and fair procurement.

Question 7. Has the Russian Federation, nationally and locally, enacted all legislation and issued all legal authorities necessary to fulfill Russian obligations under bilateral assistance programs? What remains to be done? What steps are being taken by the U.S. Government to ensure that these steps are taken prior to the provision of additional assistance?

Answer. The Government of Russia is implementing the obligations it has undertaken in U.S.-Russian assistance agreements. The Government of Russia is bound by the terms of these agreements, and is responsible for ensuring that such protections are observed, including at the local levels. Some agreements are being provisionally applied, pending ratification by the Duma. Russian officials have indicated that provisions for exemption of assistance from taxation and liabiity protections are not consistent with current Russian law. While we encourage Russia to conform their domestic law, we regard that as an internal matter, and we insist on receiving the benefit of all provisions of such agreements. We can continue to provide assistance so long as agreements providing the necessary protections are either in force, or are being applied provisionally.

With respect to others participating in the G-8 Global Partnership, some G-8 members have negotiated bilateral agreements with Russia that provide a framework for nonproliferation assistance programs. Others are engaged in negotiating such agreements, or have indicated that they hope to do so shortly. The U.S. has made clear the importance of Russia taking the necessary steps for the Global Partnership to succeed.

Question 8. What is the current state of security regarding the storage of off-loaded and reserve U.S. strategic nuclear warheads? What is the current state of security regarding reserve or off-loaded Russian warheads? What are the prospects for increasing the level of security associated with Russian nuclear weapons through bilateral cooperative efforts? To what degree have previous efforts been successful in increasing the level of security of Russian reserve and off-loaded nuclear warheads?

Answer. The security of off-loaded and reserve U.S. nuclear warheads in storage is very strong. It includes well-trained guards, secure storage facilities, comprehensive sensor suites and proven security procedures. Russian non-deployed and reserve warheads are generally well protected, although Moscow faces several challenges in protecting its weapons, including regional political instability, and terrorist and insider threats due to financial difficulties.

U.S. assistance is designed to further improve the security of Russian warheads, including non-deployed and reserve weapons, in the context of this difficult threat environment. U.S. assistance includes improvements to physical protection (fencing, sensors, communications); weapons accounting (improved hardware and software); personnel reliability (better screening of people); and guard force capabilities (improved equipment and training).

U.S. assistance provided to date has increased the security of Russian warheads significantly. As a result of increased U.S. access to those sites, we plan to expand cooperative work with Russia to provide comprehensive security upgrades at weapons storage sites. Thus, we believe we can continue to increase the security of non-deployed and reserve warheads in Russia through such joint efforts.

Question 9. Describe previous efforts to conduct an information exchange with the Russian Federation regarding non-strategic nuclear weapons. What impediments remain to a full and meaningful exchange of information?

Answer. Recently, the U.S. has made several efforts to exchange information with Russia on non-strategic nuclear weapons (NSNW), bilaterally and in the NATO-Russia channel.

In February 2001, NATO presented Russia with four nuclear Confidence and Security Building Measures proposals as part of the process established by the 1999 NATO Washington Summit. One of these proposals calls for exchanging data on U.S. and Russian sub-strategic nuclear forces. NATO is planning to continue discussing these proposals with Russia. Thus far, Russia has shown little enthusiasm for exchanging data on NSNW. Instead, it has chosen to focus the discussions on nuclear weapons safety and security issues. Consequently, a NATO-Russia seminar on safety and security issues was held in The Hague last April. NATO and Russia have indicated they plan to continue information exchanges on these issues, including a follow up seminar.

The U.S. has pushed for exchanges of information on NSNW in bilateral venues as well. During the Moscow Treaty negotiations, Secretary Powell proposed that the U.S. and Russia exchange information to improve stockpile transparency. At the September 20, 2002, Consultative Group for Strategic Security (CGSS) meeting, the U.S. stressed the importance of enhancing NSNW transparency and recommended that it be addressed in working group meetings.

Exchanging data on numbers and locations of non-strategic nuclear warheads has not been addressed before in negotiated transparency measures. Such an endeavor would pose political, technical and legal challenges. U.S. NSNW in Europe are an issue for our NATO Allies who prefer to retain the "neither confirm/nor deny" principle; it is difficult to distinguish nonstrategic nuclear warheads from strategic warheads; an exchange of data could involve divulging information about sensitive nuclear weapon facilities; and such an exchange would probably involve Restricted Data or Formerly Restricted Data, which would require negotiation of an Agreement for Cooperation under the Atomic Energy Act.

Question 10. What effect would the imposition of unilateral treaty withdrawal restrictions have on U.S. strategic flexibility?

Answer. In general, we believe that it would not be in the U.S. interest to impose unilateral withdrawal restrictions that go beyond negotiated treaty language in arms control agreements. In particular, if you are referring to the Moscow Treaty, that Treaty contains a provision allowing each Party, in exercising its national sovereignty, to withdraw upon three months written notice to the other Party. Neither country can predict what security challenges may arise within the next decade. The United States will need to maintain the flexibility to respond to any potential challenges. For this reason, the withdrawal provision was deliberately fashioned to allow greater flexibility for each Party to respond in a timely manner to unforeseen circumstances, whether they are caused by technical problems in the stockpile, the

emergence of new threats, or any other significant changes in the international environment. This withdrawal provision also reflects our much-improved strategic relationship with Russia, where a decision to withdraw likely would be prompted by causes unrelated either to the Treaty or to our bilateral relationship. For these reasons, it would not be in the U.S. interest to restrict unilaterally the flexibility provided by the Moscow Treaty's withdrawal provision.

RESPONSES OF LISA BRONSON, DEPUTY UNDER SECRETARY OF DEFENSE, TECHNOLOGY SECURITY POLICY AND COUNTERPROLIFERATION, TO ADDITIONAL QUESTIONS FOR THE RECORD SUBMITTED BY SENATOR JESSE HELMS

TAXATION OF ASSISTANCE

Question. What is the current state of agreement between the United States and the Russian Federation on the issue of taxation and assistance? Will this issue be resolved prior to the introduction of additional assistance? To what extent do prior commitments from the national and local Russian authorities remain unsatisfied?

Answer. The CTR Program is implemented pursuant to a government-to-government umbrella agreement with the Russian Federation (RF). This agreement provides a comprehensive legal framework for CTR activities and includes exemption of CTR activities from all taxes and similar charges. The RF indicates that it must submit the umbrella agreement to the Duma for ratification, but has not done so, to date. Nevertheless, the RF has agreed to provisional application of the agreement to CTR assistance until it is ratified. Consequently, DoD has experienced few significant problems regarding RF attempts to tax CTR assistance. All American firms involved in CTR projects are not paying Value Added Tax (VAT), customs fees, or other taxes. DoD has experienced some problems with local tax collectors that are unaware of, or ignore, CTR's tax-free status, but these typically have been resolved quickly by providing necessary documentation to local authorities or involving RF officials.

PREVENTING DIVERSION OF ASSISTANCE

Question. What safeguards have been developed to ensure the assistance provided through DoD is not subject to diversion? What have been the results of the audits and analysis to date?

Answer. DoD's Cooperative Threat Reduction (CTR) program has established a layered system to reduce the risk of diversion of U.S. assistance. First, the CTR Program is implemented through a series of government-to-government umbrella agreements. These agreements provide a comprehensive legal framework for CTR activities, including the following:

- Exemption of CTR activities from all taxes and similar charges,
- Immunity for participating U.S. personnel from foreign criminal jurisdiction,
- Audit and examination rights for U.S. assistance,
- Waiver of all liability claims by recipient governments,
- Assumption of all liabilities by host governments for third-party claims,
- Application of U.S. contracting rules,
- Imposition of various other obligations including the duty to not transfer any CTR assistance without U.S. permission.

Second, DoD has concluded implementing agreements for all program areas with a designated executive agent from recipient countries. For example, DoD concluded the Nuclear Weapons Storage Security Implementing Agreement with the Russian Ministry of Defense (MOD). Implementing agreements link assistance activities to the protections of the umbrella agreement, establish a limit for the amount of funding involved, and establish arrangements for audits and examinations of materials, goods and services. DoD has concluded implementing agreements that define the types and levels of CTR activity with counterpart ministries and agencies in the former Soviet Union (FSU) states.

Third, DoD conducts audits and examinations (A&Es) as a key means to ensure CTR assistance is used for the intended purpose and not diverted. The USG has established the right to examine the use of any material, training, or other services provided through the CTR program pursuant to umbrella and implementing agreements with each recipient state. From 1993 to October 2002, DoD conducted a total of 126 A&Es in Russia, Ukraine, Kazakhstan, Belarus, and Georgia. In FY 2002, DoD conducted a total of 14 A&Es.

Fourth, DoD accomplishes CTR projects in accordance with U.S. contracting laws and regulations, including the Federal Acquisition Regulations (FAR) to ensure proper use of CTR assistance in the FSU. Implementation of the FAR is a non-negotiable item in contract negotiations with U.S., FSU and other contractors. Application of the FAR ensures that DoD is minimizing costs using an objective metric and provides assurances that the program is executed properly and diversion is prevented. In addition, the following principles have proven important to providing CTR assistance in the FSU:

- A rigorous and detailed discussion of the requirements as necessary before work is contracted, including site access to ascertain the scope of the problem and possible solutions.
- An independent U.S. Government (USG) cost estimate before beginning procurement.
- A prohibition against transferring any assistance to other entities without written U.S. Government approval.
- Contracts must comply with the Competition in Contracting Act. FSU private companies may be contracted for work, but only for work performed under a firm fixed price contract.
- U.S. project managers must be allowed to monitor closely and regularly the cost, schedule, and performance of the contractor and the project to ensure that the contract is finished on time and at cost.
- U.S. project managers must be able to monitor any work promised by the recipient that is integral to the project success (e.g., infrastructure needed to support a CTR constructed demilitarization site).
- No work is paid for unless it is inspected and accepted by a USG representative. Payment to recipient country contractors or subcontractors is made only after work is completed.
- Only accepted Western financial accounting methods may be used for non-fixed price contracts.
- U.S. project managers must be able to monitor the payments from the USG to the bank selected by the contractor.
- U.S. project managers must be able to meet regularly with CTR contractors (both U.S. and foreign) to review their work, and discuss their banking arrangements and financial situations.

DoD program management teams travel extensively in the FSU to oversee CTR project implementation (140 trips during FY 2002). These trips provided an opportunity to develop requirements, negotiate contracts, agreements and arrangements, monitor contractor performance, resolve program concerns and assess whether CTR-provided services, materials, and equipment were used for their intended purpose. These trips were in addition to project visits by U.S. embassy officers and on-site project management support by USG teams and U.S. contractors who reside in country and report frequently to DoD program managers. Additionally, CTR Logistics Support (CLS) personnel visits to perform preventive and corrective maintenance on CTR provided equipment help ensure equipment is used properly. Additionally, CLS contractors train recipient-country personnel to provide assurance that the equipment is properly used.

Fifth, the CTR Program uses National Technical Means as a supplemental method to enhance CTR's confidence that assistance is being used as intended.

Six, DoD is holding semi-annual reviews with RF executive agents to develop a Joint Requirements and Implementation Plan to define agreed requirements, assumptions, risks, and risk mitigation, and responsibilities of each party for CTR projects. The U.S. meets with the other recipient countries on an as needed basis.

To date, DoD's implementation of the above activities has identified no confirmed diversion of CTR assistance by recipient governments. While not a diversion of assistance, the RF was discovered to be using heptyl fuel from dismantled ballistic missiles in commercial space launches rather than storing it for disposal by a $90 million facility built by CTR due to open in summer 2002. DoD took immediate action to prevent future such occurrences: instituted semi-annual reviews with Russian executive agents; developed implementing agreement amendments to replace Russian good faith obligations with legal commitments; and has developed the Joint Requirements and Implementation Plans describing assumptions, risk assessments, risk mitigation and proposed responsibilities for each CTR project.

AUDITS OF SUBCONTRACTS

Question. Have audits been conducted to ensure that funds provided through DoD were appiopriately expended down to the second and third tier of subcontracts in the Russian Federation?

Answer. CTR contracts are subdivided into firm fixed price (FFP) and cost contracts. FFP contracts are not audited. The work and price is agreed to prior to signing the FFP contract, and payment occurs only after the work is complete and inspected by a U.S. Government representative, in accordance with the Federal Acquisition Regulations (FAR). CTR only uses firm fixed price contracts when dealing with former Soviet Union (FSU) companies.

A cost contract is often used with American or Western firms. These contracts are moritored by an U.S. Government team and audited by the Defense Contract Audit Agency (DCAA), in accordance with the FAR. DCAA audits the prime contractor and often audits subcontractors down to the third tier. DCAA's decision to audit at this level is based on the dollar value of the contract, the service or material involved, the contract type, and other factors. DCAA may also audit to this level if the contracting office specifically requests it. The American and Western firms working on cost contracts often use FSU subcontractors, but the U.S. firms employ firm fixed price subcontracts with the FSU firms.

As a result, U.S. or Western subcontractors may be audited on cost contracts. However, FSU firms are not audited by DCAA because FSU contractors only work on firm fixed price contracts.

EQUIPMENT TITLE

Question. In what government or entity does title reside for those items of equipment that have been provided under previous or current CTR assistance?

Answer. DoD provides the vast majority of CTR assistance by service under a contract. For example, a contractor constructs a facility to eliminate ballistic missiles. In other cases, DoD provides equipment or materials to a former Soviet Union (FSU) state for a CTR project to eliminate or secure weapons of mass destruction, delivery systems or infrastructure.

In the end, the completed facility or equipment is transferred to the recipient state's executive agent. The "title" document is called a Transfer of Custody (TOC) document. The TOC is issued in accordance with the umbrella agreement, which controls equipment retransfer and restricts use of equipment for its intended purpose. For example, Article VI or the CTR umbrella agreement states:

> Unless written consent of the United States of America has first been obtained, the Russian federation shall not transfer title to, or possession of, any material, training or services provided to pursuant to this Agreement to an entity, other than an officer, employee, or agent of a Party to this Agreement and shall not permit the use of such material, training, or services for purposes other than those for which it has been provided.

DoD monitors compliance with these terms through audits and examinations, National Technical Means and routine logistics service of equipment or facilities that have been transferred.

RUSSIAN OBLIGATIONS

Question. Has the Russian Federation, nationally and locally, enacted all legislation and issued all legal authorities necessary to fulfill Russian obligations under bilateral assistance programs administered by DoD? What remains to be done? What steps are beirg taken by the U.S. Government to ensure that these steps are taken prior to the provision of additional assistance?

Answer. The record is somewhat mixed. DoD implements the CTR Program pursuant to a government-to-government umbrella agreement concluded with the Russian Federation (RF). In the late nineties, the RF concluded that it must submit the umbrella agreement to the Duma for ratification, but has not done so, to date. Nevertheless, the RF has agreed to provisional application of the agreement until it is ratified by the Duma. Consequently, the RF has continued to comply with the umbrella agreement regarding the provision of USG assistance thereunder. We understand from the Ministry of Foreign Affiirs that the RF will submit the CTR umbrella agreement for ratification in the near future.

For several years, DoD was unable to provide comprehensive security upgrades to Russian nuclear weapons storage sites through the CTR program due to RF legal constraints on non-Russian access to these sites. In spring 2002, the Russian Prime Minister reportedly issued a directive allowing U.S. Government personnel limited access to its nuclear weapons storage sites in order to monitor installation of security systems. DoD is currently negotiating with the Russian MOD to conclude the necessary protocols and arrangements to provide the site access necessary for implementation of CTR projects and protection for Russian sensitive information. DoD provided a revised version of these documents to MOD in mid-December. We antici-

pate resolving minor differences with MOD in the near future on these documents, so that we can proceed with initial security enhancement projects at agreed sites.

On a few occasions, the RF has experienced difficulty in securing land allocation for CTR projects due to local/regional opposition and political maneuvering. This delayed initiation of the Chemical Weapons Destruction Facility project, but was eventually resolved and land allocated in 1998. In 1997, local opposition precluded construction of a facility at Perm to eliminate solid rocket motors from Russian ballistic missiles destroyed through CTR projects. Subsequently, the RF identified Votkinsk as the site for construction of this facility. To date, the RF has been unable to secure from local authorities the necessary land allocation and permits for construction of this facility. Consequently, DoD has held up awarding the "Phase II" contract (initial construction and long lead equipment procurement) pending satisfactory resolution of this issue.

INFORMATION EXCHANGE ON NON-STRATEGIC NUCLEAR WEAPONS

Question. Describe previous efforts to conduct an information exchange with the Russian Federation regarding non-strategic nuclear weapons. What impediments remain to a full and meaningful exchange of information?

Answer. While the Moscow Treaty focuses on reductions in strategic nuclear warheads, we have made clear to Russia our interest in non-strategic nuclear weapons (NSNW), and in particular, in greater transparency regarding those weapons.

In the early 1990s, the United States and Russia both announced significant reductions in their non-strategic nuclear weapons without the need for a formal arms control agreement. While the U.S. has made such reductions, we have a great deal of uncertainty regarding the status of Russia's non-strategic nuclear weapons.

We are concerned about the large number of Russian non-strategic nuclear weapons and Russia's nuclear warhead production capability. We believe that the best way to address these concerns is through expanding mutual transparency.

Both Secretary Rumsfeld and Secretary Powell have raised these concerns with their Russian counterparts. We put them on notice that we intend to address these issues bilaterally. We plan to pursue transparency discussions on NSNW as a priority matter in the Consultative Group for Strategic Security (CGSS).

Many aspects of the issue of tactical nuclear weapons also involve our NATO allies and our Alliance commitments, so it is an Alliance matter in addition to a bilateral issue with Russia.

In the past, the U.S. has proposed comprehensive stockpile data exchanges. Russia thus far has shown little interest in this concept. Even so, depending upon the detail and nature of information that may be exchanged regarding future reductions of non-strategic weapons, Restricted Data or Formerly Restricted Data may be involved. In such an instance, the exchange of data would require completion beforehand of an Agreement for Cooperation under the Atomic Energy Act of 1954, as amended.

TREATY WITHDRAWAL RESTRICTIONS

Question. What effect would the imposition of unilateral treaty withdrawal restrictions have on U.S. strategic flexibility?

Answer. In general, we believe that it would not be in the U.S. interest to impose unilateral withdrawal restrictions that go beyond negotiated treaty language in arms control agreements. In particular, if you are referring to the Moscow Treaty, that Treaty contains a provision allowing each Party, in exercising its national sovereignty, to withdraw upon three months written notice to the other Party. Neither country can predict what security challenges may arise within the next decade. The United States will need to maintain the flexibility to respond to any potential challenges. For this reason, the withdrawal provision was deliberately fashioned to allow greater flexibility for each Party to respond in a timely manner to unforeseen circumstances, whether they are caused by technical problems in the stockpile, the emergence of new threats, or any other significant changes in the international environment. This withdrawal provision also reflects our much-improved strategic relationship with Russia, where a decision to withdraw likely would be prompted by causes unrelated either to the Treaty or to our bilateral relationship. For these reasons, it would not be in the U.S. interest to restrict unilaterally the flexibility provided by the Moscow Treaty's withdrawal provision.