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RUSSIA AND CHINA: NONPROLIFERATION CONCERNS AND EXPORT CONTROLS

HEARING

BEFORE THE

INTERNATIONAL SECURITY, PROLIFERATION AND FEDERAL SERVICES SUBCOMMITTEE

OF THE

COMMITTEE ON GOVERNMENTAL AFFAIRS UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

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RUSSIA AND CHINA: NONPROLIFERATION CONCERNS AND EXPORT CONTROLS

THURSDAY, JUNE 6, 2002

U.S. SENATE,
INTERNATIONAL SECURITY, PROLIFERATION AND
FEDERAL SERVICES SUBCOMMITTEE,
OF THE COMMITTEE ON GOVERNMENTAL AFFAIRS,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:35 p.m., in room SD–342, Dirksen Senate Office Building, Hon. Daniel K. Akaka, Chairman of the Subcommittee, presiding.

Present: Senators Akaka, Carper, and Thompson.

OPENING STATEMENT OF SENATOR AKAKA

Senator AKAKA. The Subcommittee will please come to order. Good afternoon, and welcome to our witnesses and all of you here this afternoon.

Today's hearing will examine how well Russia and China comply with nonproliferation agreements and enforce export controls. We are holding this hearing on the eve of what the whole world fears could be a nuclear war between India and Pakistan. These states conceivably would have never developed nuclear weapons or the means to deliver them without assistance from Russia and China.

President Bush has labeled Iran, Iraq, and North Korea an axis of evil, because of their weapons of mass destruction and their aspirations. Last month, John Bolton, Undersecretary of State for Arms Control, singled out Syria, Libya, and Cuba in his speech entitled "Beyond the Axis of Evil." Naming names of rogue states is only one side of the story.

For every state seeking to buy or build a WMD capability, there is also a state enabling it to do so. We have and should spend some time discussing emerging proliferant states and second-tier suppliers. But to make a real difference, nonproliferation must start with Russia and China, the major suppliers to proliferant countries.

Since 1992, the United States has sanctioned Russian entities more than six times for the illegal export of missile and nuclear technology, and chemical and biological dual-use equipment. The United States has sanctioned Chinese entities at least six times, including a few weeks ago for violations of the 2000 Iran Nonproliferation Act. Some of the named Chinese entities have been sanctioned before.

Multilateral export control agreements, diplomacy, and sanctions are the tools the United States has used to address the supply side

of proliferation. They are imperfect instruments in fighting the spread of weapons of mass destruction, in part because two countries, Russia and China, do not seem to share our view of the dangers, nor are they willing to enforce their pledges to prevent proliferation.

Both Russia and China claim to have export controls and agencies in place. Both can legitimately claim that the sheer size of their industrial base, new administrative agencies, growing private export companies, and confusion over new laws make it hard for them to implement controls. But time and time again, the United States identifies the same companies and the same individuals involved in illegal activities. It is these companies, these individuals, and occasionally government officials, who proliferate.

Sometimes they do so illegally, but in many instances, we are discussing transfers of restricted items that have been condoned by official agencies.

Our witnesses today will discuss the different issues surrounding this important topic. I would like to thank our administration witnesses on the first panel for being with us today. Ambassador John Wolf is the Assistant Secretary of State for Nonproliferation. He has been asked to discuss Russian and Chinese participation in multilateral export control agreements and whether current proliferation concerns are consistent with their compliance to these agreements.

Matthew Borman is the Deputy Administrator for the Bureau of Industry and Security in the Department of Commerce. He will address the export control regimes of Russia and China, and U.S. assistance to their programs.

These are difficult issues, especially in light of our expanding diplomatic relations with both of those countries. But these are questions that need to be asked if we are to find ways to make it better.

Senator AKAKA. At this time, I would like to yield to my friend and colleague Senator Thompson.

OPENING STATEMENT OF SENATOR THOMPSON

Senator THOMPSON. Thank you, Mr. Chairman, and thank you for that excellent opening statement. I think you are right on point. And with your indulgence, I will make a couple of comments.

I think this is an extremely important hearing. Back a few years ago, back in the 1990's, when we would have hearings in this Subcommittee, the Judiciary, and other committees to talk about a fellow by the name of Osama bin Laden and al Qaeda, and the threat that he posed to this Nation, and the fact that the American people were not being told all that they needed to hear about that. The attendance by Members of the Committee was not very great. The attendance by the press was not very great. There may have been some mention in the press the next day following the hearing. That is kind of the pattern of what was going on back in those days.

I hope that we are not having a replay of that. I hope that in years to come we do not look back and, instead of Osama bin Laden, we can substitute the name of any particular rogue nation that could do to us what bin Laden did to us on September 11.

This hearing is important because it goes to the heart of the issue of terrorism. While September 11 apparently was not carried out by a nation state, all of the threats that we have been hearing about for many years now, and we will hear about again today, are still as prevalent and more so than ever before. Just because we were attacked one way one time does not mean that we will not be attacked in a much more devastating way at another time by a nation state or those who are working in concert with a nation state.

Russia and China are clearly proliferators. They are clearly making this a more dangerous world. They are proliferating technology, know-how, and capability for nuclear programs and missile programs to rogue states and others. They have outfitted Pakistan soup-to-nuts as far as their missile program is concerned, entire missile systems.

We would not have a crisis today in Pakistan had it not been for Chinese policies over the last several years. They continue to supply Iran, who may be as dangerous to us. In retrospect, we may conclude that Iran is as dangerous to us as Iraq. And they continue apace in their activities, continuing to develop long-range missile capabilities, with the carrying out of their Shahab III missile and other nuclear capabilities, which they claim they need domestically in that sea of oil that they are sitting on, for their energy supply, which can so easily be diverted.

But I think the hearing is also important because it is going to point the finger at some of our policies in this country that we have had now for some years and continue. It is as if we really do not know what to do about this situation, because clearly we know what these countries are doing. We are trying to be friends with Russia and China, and we are also trying to get them to move toward more moderate behavior.

And we sanction their companies from time to time. It has done absolutely no good. We catch the same companies doing the same thing. They are not concerned with our sanctions. Our sanctions do not even address the things that might even concern these companies.

Clearly, with regard to at least some important parts, the nations themselves, the leaders of China and Russia, are aware of very important things that are going on in terms of proliferation activities.

A second set of policy issues has to do with our own export controls. The United States supplies technology in the form of high-speed supercomputers that, as one of our witnesses will point out, is very helpful in terms of designing nuclear weapons and missiles. We send that to China. China in turn assists Pakistan and Iran with regard to their nuclear and missile capabilities. So maybe someone can explain to me what sense that makes. But that has been our Nation's policy now for some time, and it is today.

So I think the American people should know this. The American people should understand what Russia and China are doing, that they continue apace, that they will continue to do this. They will continue as we reach out to them and try to assist them, in the case of Russia; as we try to bring them into 21st Century trade patterns, in the case of WTO in China; that they are becoming

more and more a threat to world peace; and that our policies in attempting to deal with this are simply not working; and that we need to get about the business of trying to figure out what might work.

So for all these reasons, this is a very important hearing. And I appreciate your having it, Mr. Chairman, and I thank you.

Senator AKAKA. Thank you very much, Senator Thompson. Senator Carper.

Senator CARPER. Thank you, sir. I have no comments, and I am just here to hear these witnesses. I look forward to their testimony.

Senator AKAKA. Thank you very much. We are glad you are here.

At this time, I would like to call on Ambassador Wolf for your statement. Will you please proceed?

TESTIMONY OF JOHN S. WOLF,[1] ASSISTANT SECRETARY, BUREAU OF NONPROLIFERATION, DEPARTMENT OF STATE

Mr. WOLF. Thank you very much, Mr. Chairman, Senators. It is my privilege to testify on behalf of the Department of State on the important subject of proliferation concerns with Russia and China. I have a longer statement, that I would request be entered into the record, that addresses a number of the questions that you posed.

Senator AKAKA. Your full statement will be included in the record.

Mr. WOLF. But let me first mention a few of the highlights.

I have just returned from a most recent trip to Europe over the weekend, and I was delighted to hear in Berlin and in Brussels at the European Union and at NATO that they share our view that proliferation is one of the two galvanizing threats that confront Europe. It is good to hear the views, but the challenge with our partners in Europe and around the world continues to translate to increasing understanding into a much more effective action, as Senator Thompson was describing, action that will complement and supplement a variety of actions that the United States is taking in multilateral regimes, in our plurilateral relationships, bilaterally, and, in some cases, unilaterally.

Nonproliferation is one of the most important and complex of America's foreign policy challenges. The President describes nonproliferation not as one of many issues in our foreign policy but as a central, focused issue around which other things revolve. And this is one of those, like the war on terrorism, where one needs to choose sides. You cannot sit on the fence.

Now both Russia and China have helped in important ways in the fight against terrorism in the wake of the September 11 attacks. Yet, significant differences remain between us on critical nonproliferation issues. I would like to outline our concerns and describe some of the steps that we have been taking to deal with the problems.

I turn first to Russia, where the President's visit last month cemented important parts of a new strategic arrangement that we seek to reach. In addition to the dramatic treaty on reducing strategic offensive weapons, which will shortly be before the Senate, Presidents Bush and Putin agreed to intensify efforts to combat the

[1] The prepared statement of Mr. Wolf appears in the Appendix on page 34.

spread of weapons of mass destruction. They went on to Rome for the creation of the new NATO–Russia Council, which will also address proliferation questions. And in implementing our efforts, succeeding would be a major contribution to U.S. national security as well as to global security.

But despite our deepening and our positive strategic dialog, we remain concerned that Russian entities are providing proliferant states with weapons of mass destruction and missile-related technology. Russian entities continue to engage in WMD and missile-related cooperation with a number of programs in proliferant countries such as Iran, Libya, and Syria. In addition, Russia is also a major supplier of advanced conventional weapons for these states.

We have been working with the Russian Government for several years to help cement its export controls and enforcement. This assistance played a significant role in creating the legal foundation for export controls that is now in place in Russia.

Ultimately, however, the Russian Government must demonstrate the political will and devote the necessary priority and resources to use these capabilities effectively to stop illicit transfers, as well as to set responsible policies for what constitutes legitimate transfers. It has not done so yet, and we continue to press Moscow to demonstrate such a commitment.

With regard to China, it too is a partner in the fight against terrorism. The President signaled this during his visit to Beijing this spring, as well as his desire to develop a broader relationship. But notwithstanding this and the important steps that Beijing has taken through commitments to multilateral proliferation regimes and bilateral arrangements with us, and the announcement that they would promulgate a variety of chemical-, nuclear-, and missile-related controls, we continue to have concerns about their nonproliferation behavior. The controls that they have announced for the most part are announcements, but they are not actual laws. They need to be laws, they need to be known, and they need to be enforced.

We are particularly concerned that China complies fully with its various pledges not to provide assistance to any unsafeguarded nuclear facilities or programs anywhere. We are concerned as well over possible interactions between Chinese and Iranian entities, despite China's 1997 pledge to end its nuclear cooperation with Iran. Chinese entities' assistance to chemical programs in Iran and missile programs in Iran, Pakistan, and elsewhere has been a persistent problem.

In the past 6 months, we have imposed sanctions on five entities for sale of items that assisted covert chemical or biological weapons programs. There are other laws that come up periodically, and there are other cases that are under active investigation.

China has failed to implement its November 2000 commitment not to assist in any way any country in the development of Missile Technology Control Regime-class missiles capable of carrying nuclear weapons. It continues to export dual-use missile-related items to several countries of proliferation concern. This has been the subject of a number of high-level discussions between U.S. and Chinese officials.

In short, there is a continuing gap between China's commitments and its implementation of those commitments. And we remain concerned about this, as we do about the gaps and loopholes in China's export controls and about China's ability to effectively enforce them. President Bush made clear at the time of his summit that fulfillment of nonproliferation commitments would be a major factor in determining how far a new U.S.-China relationship can develop. It is the same point that the President made last month during the summit in Moscow.

We are expanding our broad relationship. There are many positive aspects. But with Russia, like with all of our friends, the issues of nonproliferation are significant issues, and they limit the ability of the United States to expand into new areas that would be of mutual benefit.

The bottom line, Mr. Chairman, is that with both Russia and China, we are working to develop broad, new relationships, among other things, that will enable us to combat terrorism and the spread of weapons of mass destruction.

We seem to agree that terrorism and weapons of mass destruction are threats to each of us and to the world collectively. The United States and a number of its friends and allies are taking concerted action in a variety of ways to stem these threats. We are working to strengthen the export control regimes, like the Missile Technology Control Regime. We are working for more effective enforcement of the Non–Proliferation Treaty and strengthened IAEA safeguards.

But cooperation from China and Russia is inconsistent. Policy implementation does not match public or private assurances, and trade by entities in each country is contributing directly and significantly to precisely the threats that the Russian and Chinese Governments say they oppose.

I would be delighted to expand further in questions and answers and specifics in relation to your questions, Mr. Chairman, or in my written text. Thank you very much.

Senator AKAKA. Thank you very much for your statement, Ambassador Wolf.

Mr. Borman, will you please proceed with your statement?

TESTIMONY OF MATTHEW S. BORMAN,[1] DEPUTY ADMINISTRATOR, BUREAU OF INDUSTRY AND SECURITY, DEPARTMENT OF COMMERCE

Mr. BORMAN. Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to testify at this hearing.

The effectiveness of the export control systems of Russia and China is an important subject made even more important by the events of September 11. The Subcommittee is to be commended for its attention to this topic.

My oral testimony will describe the dual-use export control systems of Russia and China and the status of our assistance efforts with those countries. My descriptions are based on the Department of Commerce's involvement in those assistance programs.

[1] The prepared statement of Mr. Borman appears in the Appendix on page 51.

Russia's current dual-use export control system has continued to evolve since its beginning in the early 1990's. Russia is a member of the Wassenaar Arrangement, the Nuclear Suppliers Group and the Missile Technology Control Regime. Russia is also a member of the Exporters Committee, commonly called the Zangger Committee, under the nuclear Non–Proliferation Treaty. Russia is not a member of the Australia Group. Russia is a state party to the Chemical Weapons Convention and the Biological Weapons Convention.

In summary, Russia has, for export controls an export control law that covers the export of dual-use items; implementing regulations, including control lists and catchall controls; interagency review of export license applications; an outreach program to inform exporters of their responsibilities under Russia's export control system; and, I would say, limited enforcement capability.

Russia enacted its basic export control law in 1999. It provides the authority to control the export of all the items that are on the four multilateral regime lists, plus chemicals subject to the Chemical Weapons Convention. It also provides various other authorities, including the authority to have a catchall control, and, in the related criminal administrative codes, penalties for violations.

Russia has put significant amount of effort into educating its defense enterprises on Russia's export control requirements, and the United States has worked with Russia and nongovernmental organizations to help facilitate that.

Russia's export control system is currently enforced by a combination of agencies: The customs service, the intelligence service, and the federal prosecutors. Russia has recently indicated to us that they are interested in beefing up their enforcement and in particularly looking at administrative enforcement mechanisms. And in our own experience, administrative enforcement is a critical part of an effective export control system.

As Ambassador Wolf has mentioned, we have had an ongoing export control cooperation program with Russia for several years now. In the first few years, it was actually more of an exchange of information. And certainly, we had to overcome some skepticism on the part of Russian officials and exporters that the United States was not really pushing export controls to preserve market shares and market advantage for U.S. companies. I think we are well past that, but clearly there is a lot that Russia still needs to do.

As I mentioned, a large part of the effort has been educating Russian defense enterprises on Russia's export control system. Today under this program, several hundred Russian defense enterprises have at least gone through a first round of training, if you will. And a recent study of that particular part of the program, the outreach program, by the University of Georgia indicates that it has had some effect. It has at least given exporters in the defense enterprises a basic knowledge of Russia's export control system. Clearly, they need to do more training.

One other thing I would like to mention on our cooperation with Russia, the Department of Commerce does have an export control attache stationed in Russia. That person has several responsibilities, one of which is to do end-use checks when U.S. goods are exported into Russia. But another important responsibility of our at-

tache is to work with Russian officials, particularly the export control enforcement officials, and provide information on ways that they might improve enforcement of their own export control system.

Turning to China, I have less to say about China. The U.S. Government has not had an ongoing export control cooperation program with China. We have had some limited bilateral meetings over the past few years, but those have really only been very basic exchanges of information. China is not a member of any of the multilateral export control regimes, save the Zangger Committee, which is for nuclear trigger list items.

As Ambassador Wolf has mentioned, China has promulgated some export control regulations, but we have not really engaged in any dialog with them as to what those really mean or how they are implemented.

With that, I think I will conclude my oral testimony, and, again, also be happy to answer questions.

Senator AKAKA. Thank you, Mr. Borman. Your full statement will be included in the record.

Mr. BORMAN. Thank you, Mr. Chairman.

Senator AKAKA. We have some questions for you.

Ambassador Wolf, the 2001 unclassified report to Congress on the acquisition of technology relating to weapons of mass destruction and advanced conventional munitions has a quote I would like to read. The Central Intelligence Agency states that, "With respect to Pakistan, Chinese entities in the past provided extensive support to unsafeguarded as well as safeguarded nuclear facilities, which enhance substantially Pakistan's nuclear weapons capability. We cannot rule out some continued contacts between Chinese entities and entities associated with Pakistan's nuclear weapons program subsequent to Beijing's 1996 pledge and during this reporting period."

If there are such contacts between Chinese entities and Pakistan on nuclear weapons, Ambassador Wolf, do you believe such contacts would have to involve official Chinese entities and individuals? Do you believe that China continues to provide assistance to Pakistan's nuclear weapons program? And if so, what type of assistance?

Mr. WOLF. I think, Mr. Chairman, that I will stand with what you read from the 721 report. This is an open hearing. And the Department of State certainly concurs with the sentence that you read that we cannot rule out some unspecified contacts between Chinese entities and entities involved in Pakistan's nuclear weapons development program.

Nuclear weapons tend to be a fairly regulated activity. But here, it would not be helpful, I think, to speculate beyond the language.

We are concerned. We have had conversations with China. We do believe that it is absolutely essential that China live up to all of the nonproliferation commitments it has given, none more important than the set of nuclear commitments, not only in terms of providing no help to any program or activity that is absent safeguards, but also its commitments vis-a-vis Iran not to provide any assistance to Iran beyond the two very limited projects that were, for all intents and purposes, grandfathered in 1997.

As long as you have read from the Central Intelligence Agency's report, I think it is important to note, Mr. Chairman, that it does actually provide an encyclopedic view unclassified, sometimes with classified and sometimes not classified annexes to the Congress. But I think we are one of the few countries in the world that actually puts its cards down on the table.

It does not solve the problems that you and Senator Thompson have described, but I think it helps in the education of the public. And that has been one of our challenges as we work our way through our allies, trying to raise their appreciation of the risks that proliferation poses to them. So we use this report and we use our contacts to try and get this up in the agenda dealing with nonproliferation.

To go back to what you all were saying, it is not something we will achieve alone, because the dual-use technology that is available not only from the United States or Western Europe but increasingly from middle-tier countries makes the challenges that we all face that much more difficult. Countries that were receivers of technology, buyers of technology, now some have become exporters of technology.

Senator AKAKA. I do not think you have covered that part on whether you believe that China is assisting Pakistan.

Mr. WOLF. We believe that—we are still concerned that entities may be involved in their nuclear weapons development.

Senator AKAKA. Ambassador Wolf, the same report states that, "President Putin, in May 2000, amended the presidential decree on nuclear exports to allow the export in exceptional cases of nuclear materials, technology, and equipment to countries that do not have full-scope IAEA safeguards. The move could clear the way for expanding nuclear exports to certain countries that do not have full-scope safeguards, such as India."

Are there any indications of continued Russian official contact with the Indian nuclear weapons program or assistance to the military side of the Indian nuclear program?

Mr. WOLF. Mr. Chairman, I think it is important to clarify that India is a rather different case on various lists than the way in which it appears in the 721 report.

But it is clear India developed and, for the most part, developed its own indigenous nuclear capability. This paragraph has to do specifically with Russian assistance to the civilian side of India's nuclear establishment.

There is nothing in this report that suggests that there is Russian assistance to India's nuclear weapons capability. There is ongoing contact, both in terms of nuclear fuel supply and items below the NSG trigger list level, between Russia and India. There are contracts for the sale of additional nuclear reactors.

But India does not have full-scope safeguards. This has been an item of very active discussion in the Nuclear Suppliers Group, and we will not let it go.

Senator AKAKA. Before I defer to Senator Thompson for his questions, I have a question for Mr. Borman.

In your testimony, you state that discussions between the United States and China on export controls have been limited. Why have only modest steps been taken to help China identify problems in

their export control systems? Is it because of Chinese reluctance to seek outside advice? Or have we been reluctant to take action?

Mr. BORMAN. Well, in my experience at least, it is probably been more the former. Clearly, to have this kind of cooperation program, you have to have two governments that are interested in moving forward. And I have not seen that indication, although the State Department may want to comment on that as well.

Mr. WOLF. I might add a little bit, Mr. Chairman, because I have had an active dialog with certain Chinese officials, but it has not gotten as far as we would like.

In the context of our discussions, and especially about the November 2000 Missile Technology Control Agreement, China agreed to publish comprehensive export controls for missiles. During the course of our dialog about the lapse or breach of that agreement, we have also had a chance to hear that China intends to expand its current controls on Australia Group-related export items and, indeed, to make their export lists compatible with the Australia Group. We are not aware that the law or a regulation on CBW has been promulgated.

Similarly, they have told us that they intend to publish lists that would be compatible with the MTCR annex items. That had been tied up in the discussions of the November 2000 agreement. In fact, in some conversations, it has appeared that maybe it is not now.

The point for us is that China does not promulgate new export control lists as a favor to the United States or to the Australia Group or to the MTCR partners. China's policy, as declared from the highest levels, is a policy that opposes proliferation. And a policy that opposes proliferation needs to be backed by rigorous regulations and rigorous enforcement of the regulations. It is not enough just to have the regulations; they need to be enforced. By enforcement, it is not enough to just catch somebody and tell them not to do it again; there need to be judicial sanctions.

So as we look at the direction that China is going, we are encouraged by what we hear from every level of the Chinese Government about commitment to nonproliferation. But we are not as encouraged by the fact of what is there in terms of the legislative and administrative arrangements. And we are certainly quite less satisfied with the enforcement, because, as in the CIA's report, Chinese entities are active all around the world.

Now, does that or does that not have the government's endorsement or support? We cannot answer that question as easily as we can answer the point that enforcement is insufficient to prevent Chinese entities from selling goods and services to proliferators in a way that significantly enhances those proliferators' programs.

Senator AKAKA. Are there any other comments you would like to make, Mr. Borman?

Mr. BORMAN. Well, I guess to amplify a little bit of what Ambassador Wolf said. In the program we have had, at least with Russia and some other countries, you initially have a political commitment to engage in cooperation and then from that flows the more technical discussions. As you have heard, we are not to that point yet with China.

Mr. WOLF. With Russia, for instance, we have experts who sit down. They review the list. We are working with Russia in a vari-

ety of ways, in terms of working with the export control part of the economic development ministry on things like enhancing communications, expanding export control outreach, as Mr. Borman described, but also education for judges and prosecutors and legislators. We are helping to install specialized radiation detection equipment at a number of border posts. And we are engaging in a broader set of export control talks, including on nuclear-related exports.

With Russia, we have that opening. With China, we are interested in expanding our discussion, but it takes two hands to clap.

Senator AKAKA. Thank you, Senator Thompson, for your questions.

Senator THOMPSON. Thank you, Mr. Chairman.

I hardly know where to start. It is clear that the State Department and our export folks are doing what they can in order to try to get Russia and China to come up with some regimes of enforcement. Of course, I guess it was 1999 that Russia passed an export control law. China has issued some regulations and so forth.

Ambassador, I realize that you have to be diplomatic. You are working with these people. And to the extent that you can get them to come up with these regimes and comply maybe sometimes with these regimes, more power to you.

And the same with you, Mr. Borman.

But we have seen here for several years now the State Department and their export folks in Commerce and so forth proceed along on the basis of taking at apparently face value these political statements made from the highest authority. Taking at face value their statements that they really do want to control all this stuff. Apparently, this administration is adopting that same approach. And I find it disconcerting, to say the least.

We have all seen the classified information. We have to rely on what is on the public record, and I look at the public record and see things like this. According to a February 2002 unclassified summary of the Director of the Central Intelligence report to Congress on the acquisition of technology relating to weapons of mass destruction, Russian entities continue to supply a variety of ballistic missile-related goods and technical know-how to countries such as Iran, India, China, and Libya. Iran's earlier success in gaining technology and materials from Russian entities has helped to accelerate Iranian development of Shahab III, a missile with a capability to hit Israel. And continuing Russian assistance likely supports Iranian efforts to develop new missiles and to increase Tehran's self-sufficiency in missile production.

In January 2000, Moscow approved a draft cooperative program with Syria that included civil use of nuclear power. Broader access to Russian scientists and Russia's large nuclear infrastructure could provide opportunities to solicit fissile material production expertise and other nuclear-related assistance if Syria decided to pursue nuclear weapons. During the first half of 2001, Russian entities remained a significant source of dual-use biotechnology, chemicals, production technology, and equipment for Iran.

With regard to China, obviously they do not view export controls as a national priority, to say the least. They use them as a bargaining chip and have basically told us that as long as we continue supporting Taiwan, and we will not approve satellite sales and sat-

ellite launches, they are going to continue to do pretty much as they please and have.

The administration in September 2001 imposed sanctions on two companies that were found to have transferred ballistic missile goods and technologies to Pakistan. More recently, in January of this year, the administration imposed sanctions on three more Chinese companies for transferring chemical and biological technology to Iran. The CIA Director reports that the PRC remains a key supplier of technology inconsistent with proliferation goals, particularly missile or chemical technology transfers. China contributes toward trends and more ambiguous technical assistance, indigenous capabilities, and longer range missiles and secondary proliferation.

Most recently, China has reportedly assisted Pakistan in the development of its Shaheen II two-stage solid fuel medium-range ballistic missile. In addition, firms in China have provided dual-use missile-related items, raw materials, and/or assistance to several other countries of proliferation concerns such as Iran, North Korea, and Libya. Chinese firms continue to be suppliers of dual-use chemical weapons production equipment and technology to Iran.

I submit to you that is not cause for optimism. It is clearly a continuation, if not acceleration, of what we have been seeing over a period of years now.

It is clear that, in terms of Russia's situation, they lack resources. They lack expertise. I think you point those things out. And specialists, in some ways. We are trying to help them there. We should. It is not like every item that they made, they send to someone who is a bad actor. We are assisting them with our Nunn–Lugar program and trying to do something with regard to the nuclear stockpile.

But when it comes to the bottom line and they are making money, they clearly continue to do these things and make the world a more dangerous place.

I understand the position of both of you gentlemen. That is why I am doing what I hate for us to do, and that is to make statements instead of asking questions. But I can just express that I hope that deep down inside you really do understand that what these high-level officials of these two countries say about proliferation is virtually meaningless, and what they agree to do is virtually meaningless when it comes to them and their national interests.

Over the years, you could almost say the same thing about our European friends. I am glad you feel optimistic coming back from talking to our EU friends, but their history there, when profits were at stake, has been terrible. I mean, some of our friends in the EU are in the process now of helping break sanctions on Saddam Hussein.

I just think that it is good to have these public forum discussions. You may disagree with most of what I say, but I am talking about the public record and similar hearings that we have over the years, and I am saying that the world continues to be a more dangerous place. We continue to try to figure what to do about it, but we are not making much headway with regard to the two most prominent and persistent proliferators in the world, Russia and China.

I am not saying that you gentlemen need to come in here within a year or so and solve all these problems that have been developing over several years. I am just saying that we would be very naive, and it would be very dangerous for us to assume that things are getting better, because things are getting worse.

Mr. WOLF. Maybe I should take that as a question: Do we agree?

Senator THOMPSON. That'll do. [Laughter.]

Mr. WOLF. Let me say that I think some things are different in this administration, and we are not particularly diplomatic. I will refer you to our European friends, or I will have John Bolton come up and explain.

But we are not particularly diplomatic. The President has been very clear, starting with his speech at the State of the Union, and in every contact that we have with our friends on whom we are hard, and those who are not as friendly, and those who are on the other side. And we are not diplomatic with them. There are no game preserves. We do not rule certain countries in and out. We did sanction China a month before the President was to go to Shanghai. We have sanctioned entities.

Senator THOMPSON. Chinese companies.

Mr. WOLF. We are continuing to sanction entities. I do not believe, actually, that Russia lacks resources or expertise. I think they lack will. But I think things have changed in Russia.

Two years ago, I was the negotiator for Caspian energy. On Caspian energy, the reception that the United States received in the Caspian region is unlike the reception that the U.S. military receives in Central Asia today.

Russia is moving, but has it made a decision at the highest level to tell every other level to stop it? It is clear that has not happened. And that is why the President engaged directly with President Putin at the summit 2 weeks ago, to make it clear that nonproliferation for the Bush Administration is a core, central issue. And it is not tempered by cooperation in the war on terrorism. It is not tempered by the desire to develop an economic relationship. It is not tempered by a personal friendship.

For us, support for countries—which, you are right, Iran poses a direct threat not just to Israel and not just to Russia. Iran and the programs that it has now, including the Shahab missile, pose a direct threat to the United States by the ability of that missile to hit U.S. forces in Turkey and a direct threat to NATO by its ability to hit forces from NATO countries in the Gulf region.

And that is the conversation we have with the Europeans. Do not take wrong what I said about "I come back optimistic." I came back hearing that there is a greater recognition that proliferation is one of two threats to European security, the other being regional disintegration.

But we will be able to tell how real that appreciation is when we see things like whether the Europeans tie their trade relations talks to their concerns about nonproliferation.

We will see if Russia's commitment to ban the weapons of mass destruction plays out in the marketplace. I was told by the head of the space agency that they have a number of cases under investigation, and I told them, "That's good. That is encouraging. We look forward to hearing how you proceed with those investigations."

He said, "We found one guilty. We fired him." I said, "That's not enough. You must not slap him on the wrist. Slap him in jail."

For Russia and China, the question is whether or not the government sends signals through the judicial process that are sufficient to tell these renegade entities that the government is serious. They have not done that yet. Our eyes are wide open.

Senator THOMPSON. You are not suggesting they all are renegade, are you?

Mr. WOLF. It is hard to discern whether or not they are done with the support of the upper levels, or whether or not they are done with the support of the entities.

Senator THOMPSON. Well, it is, I guess, most times hard to discern, Ambassador Wolf. But I guess that is what I am getting at.

Our primary overriding concern is the safety of our Nation and our friends and our allies. If you have a pattern over the years of this activity coming out of a country that we have a relationship with and an improving relationship with, with regard to a lot of other areas. If this pattern continues, and you sanction a company here and a company there and maybe a subsidiary or affiliated company does the work instead, where should the burden lie?

Should the burden be on us to prove beyond a reasonable doubt in a court of law? Or should we say to them, "We cannot prove beyond a reasonable doubt in a court of law who exactly knew what, but it is your responsibility."

And in many of these cases, they do not make any bones about it. I mean, they say this is for peaceful nuclear purposes and use these loopholes in the law to do things on top of the table, not to mention the other.

But where should the burden lie? Should we not put the burden on them, say regardless of who knew what, your policies need to be directed toward stopping this or making substantial progress towards stopping that?

Mr. WOLF. Senator, your talking points are exactly the ones we use. The burden is with their leadership; their burden is with their administrators.

We will be able to judge their commitment—either country—their commitment to their nonproliferation rhetoric by the degree to which they enforce and put in place wide-ranging laws and then enforce them. If we do not see a pattern of enforce—and we have laws and we have companies that try to violate our export laws. And we count on a variety of U.S. administrative means to identify those people, prosecute them, and hopefully convict them, and that's what we count on.

In our dialog with the Russians, for instance, we say that, "We understand you will not turn this off overnight. You are right. This is years of behavior. But what we do not see is a pattern of prosecutions, a pattern of companies being found in violation"——

Senator THOMPSON. What does that tell you?

Mr. WOLF. It tells you that the political will is not there yet.

Senator THOMPSON. Does that tell you that the leadership is surprised and shocked to find that these companies are doing this? Or does it tell you that perhaps they realize that these companies needed funding, and it was in these countries' interests to have

these entities survive. And they were all up against it financially, so they at least turned a blind eye. What does that indicate to you?

Mr. WOLF. What it indicates to us is that they are not effectively implementing their law. And what the President has made clear, Senator, is that even as we try to move forward on a broad relationship, and there are other areas with much more economic significance than these sales, that we will not be able to move in that direction, because the administration will not choose to and the Senate and House will not support it.

And we are very clear that to expand the relationship, for instance, with Russia, to take on a number of new activities in terms of nuclear research or space cooperation, that there needs to be an end to support for sensitive nuclear cooperation—for instance, in Iran, an end to missile cooperation in Iran, an end to advanced conventional weapons sales.

Senator THOMPSON. Well, I am assuming that the President had some very direct conversations with Mr. Putin, for example. I feel confident that that is the case. And I like most of what you say in our discussion, quite frankly.

I got kind of a different impression from your statement. The President needs support from the State Department in carrying out this message. And I would just urge you to consider whether or not in your public statements, which they are all very much aware of, that the thrust of what you are saying is that things are looking up, we are going to watch them carefully, but we are making progress, and we are encouraged and all of that—in the face of our own CIA telling us what has happened. I mean, I fear that the other side thinks perhaps that we may be patsies somewhere up or down the line.

And I just would encourage you to consider that in your public pronouncements, with regard to these issues.

We have a vote on. We will stand in recess until Senator Akaka comes back.

[Recess from 3:33 p.m. to 3:38 p.m.]

Senator AKAKA. The Committee will be in order.

Mr. Ambassador, I understand that Assistant Secretary of Defense Peter Rodman will be traveling to China shortly to hold bilateral talks with the Chinese on military and defense issues. The question is, will the Departments of State and Commerce be advising Secretary Rodman on issues concerning proliferation and enforcement of export controls, which he should raise with the senior Chinese officials? I think this would be a good opportunity to reinforce the administration's concerns, especially given Mr. Borman's testimony today, indicating that we have had problems getting Chinese attention on export control enforcement.

Is he going to raise some of these questions with the senior Chinese officials?

Mr. WOLF. Mr. Chairman, I know that as one of his first acts, President Bush promulgated a national security presidential directive that established a nonproliferation working group at the assistant secretary level. I am one of the people on it, and so is Mr. Rodman, when issues come up related to his activities.

And I am sure that Assistant Secretary Rodman will welcome the advice of the "PRO–STAT–PCC," we call it, on those issues that

are not directly defense—inherently defense. We try to coordinate our activities, as we do when Defense has its various dialogues.

I participated in a meeting a couple of weeks ago over at the Department of Defense when there was a visiting delegation, and I am sure Mr. Rodman will welcome advice from Commerce and State. In any event, we will provide it.

Senator AKAKA. Russian officials have stated that the United States has a double standard when it comes to Russian assistance to Iran. They claim that we condemn certain exports from Russia but support sales of the same items from other countries to Iran. They also claim that Russian work on the Iranian nuclear power plant is the same as our assistance to North Korea, through the Agreed Framework. Could you please comment on these claims?

Mr. WOLF. We disagree. I'll expand.

Where we can identify American companies that are exporting dual-use technology to prohibited entities and enemies, we certainly rigorous enforcement action. Where we identify, for instance, European entities that are exporting dual-use technology to Iranian entities, we take rigorous action.

I can think of one case for one Western European country in particular where I met with the ambassador, and I told him very specifically that that company needed to choose: Was it going to try to develop a market in Iran, or was it going to continue to develop its market in the United States? It could not do both.

Secretary Powell raised the same issues in his conversation with the foreign minister and the economic minister of that country. And in the end, the country chose to use its catchall regulations to stop the export of an item which was not even actually on the Australia Group list but which could have contributed to a BW program in Iran.

We do that with our friends. We do it wherever we have information. And where we can use the information without compromising our sources in a serious way, we use that information to try to halt the export.

Now, we have clear information—this is not just a guesstimate—that Russian entities are providing critical support for nuclear fuel cycle development in Iran. And Russian entities or individuals are providing critical support for missile development in Iran. And Russian entities and Russia are selling advanced conventional weapons to Iran. And it is our belief that that has to stop.

On the question of Bushehr, Bushehr is much more complicated. Bushehr is in fact a light-water reactor. It is in a country that is clearly conducting efforts outside of its IAEA safeguards to acquire the capability to make fissile material. It is a country where the program is moving forward. It does not have an additional protocol. There will be no wide-ranging IAEA inspection of all of the facilities, as would be the case in North Korea.

The Iranian nuclear program and the nuclear fuel cycle is not frozen, as we believe but we cannot confirm. And we remain very vigilant, because we do not know whether it is or it is not, the North Korean.

But Russia did not get any of those things, and Russian entities are continuing to support the development of elements of the nu-

clear fuel cycle which are incompatible with a light-water reactor at Bushehr.

So the situations are completely different. And we believe that with political will that we should be able to expect to see much more consistent, much more effective implementation of export controls. I mean, it is true for Russia, but it is true for a number of countries.

There is a belief among some that if a country is, for instance, an adherent to the NPT, and if it is a member of the International Atomic Energy Agency, and if safeguards appear to be intact, then therefore that recipient country is entitled to all of the benefits of participation. We do not believe that. There are countries that are wannabes, which are in compliance with IAEA safeguards on the one hand, but which are conducting clandestine activities on the other hand.

As the 721 report makes very clear, the CIA's report on mass weapons and nonproliferation, Iran is one of those countries. And therefore, one needs to be highly vigilant, whether one is Russia, whether one is a member of the European Union, or whether one is the United States of America, or whether one is an island just to the south of us, because exports of dual-use technology which can be diverted may well be diverted. And without consistent, constant monitoring right on the spot, one can never know. That is particularly true for BW-related items, because they can be converted back and forth in a matter of minutes.

Senator AKAKA. Let me raise another possible issue. We are concerned, as you have testified, about Russian assistance to Iran's civilian nuclear program. Shouldn't we also be concerned about the military implications of India's civilian nuclear program?

Mr. WOLF. India's program?

Senator AKAKA. Yes.

Mr. WOLF. We have been concerned, and our cooperation with India is limited to three tiny safety projects, and we have not cooperated with them for a very long time.

In 1998, when there was another explosion, we put in place sanctions. When we lifted sanctions last fall, we said to the Congress that we remained concerned about nuclear developments in South Asia, and the events now make clear that we should be.

India is a quite different case than countries that are mentioned in other parts of the 721 report. But we are concerned about India's nuclear program, and we have raised in the Nuclear Suppliers Group concerns about Russia's provision of technology and fuel to India, absent full-scope safeguards and in breach of the NSG guidelines.

We did not win that battle. The Nuclear Suppliers Group was united with us; Russia chose to do otherwise.

But we will continue to try to maintain the NSG guidelines. We believe full-scope safeguards are the only way that we can limit the risks that are out there. And even with those guidelines, the wannabes have found other ways to acquire technology and expertise that help them move forward.

Mr. BORMAN. Mr. Chairman, if I could follow up a little bit on the double standard issue. Certainly as far as U.S. origin goods go, of course we have a unilateral embargo on Iran, so there are very

few things that go from the United States to Iran, and those controls also extend to some extent to the re-export of U.S. origin goods.

And as far as India's nuclear power program goes, even when the sanctions were lifted to some extent, all of their nuclear power activities remain on entity lists.

Mr. WOLF. And we do not supply them.

Mr. BORMAN. Correct.

Senator AKAKA. Thank you.

The United States, Great Britain, and Norway are financing a computer system for other nations to track nuclear components and materials in real time, called Tracker. It is employed in nine countries, including several former Soviet bloc countries. This system relies on participating governments to input information on export licenses into a computer. Each country owns its own information and is solely responsible for its accuracy.

The question is, have the United States and our partners offered this system to Russia or China? If not, are there plans to do so?

Mr. WOLF. That is one of my systems, Mr. Chairman, and I should know the answer to whether we have offered it to Russia. I believe we may have.

I have raised it in discussions with the Chinese. We would be prepared to do that. The system is not quite as omniscient as your first couple of sentences suggested. The system is, in its current stage, basically a tool which we provide to governments to help automate and give transparency to their export control licensing process by inputting data and making it available to the various entities around a government, the various agencies that are involved in the export decision. It is possible for the person in charge to know the status of an export license. It adds a great deal of transparency.

Now, ultimately, if linked together—and I think this takes it a little further than it is now—it would provide us a means of exchanging information. We try to do that in a variety of other ways. And we rely on other assets of the U.S. Government for our own individual look at what is happening in the nuclear trafficking world through the NSG or through our own intelligence.

Senator AKAKA. Thank you very much for your responses.

Senator do you have any questions?

Senator THOMPSON. Nothing further, thank you. Thank you, gentlemen.

Senator AKAKA. Thank you so much, Ambassador Wolf and Mr. Borman, for your testimony. The Members of the Subcommittee may submit questions in writing to you, and we would appreciate a timely response to any of those questions. So thank you very much. We really appreciate your responses.

Mr. WOLF. Thank you.

Mr. BORMAN. Thank you.

Senator AKAKA. We will now proceed to our next panel of witnesses.

I would like to call Leonard Spector, David Albright, and Gary Milhollin to take their places at the witness table.

Mr. Spector is Deputy Director of the Center for Nonproliferation Studies in the Monterey Institute for International Studies. Mr.

Albright is President of the Institute for Science and International Security. And Mr. Milhollin is Executive Officer of the Wisconsin Project for Nuclear Arms Control.

I want to thank you gentlemen for being with us today. You have been asked to discuss recent proliferation activity from Russia and China, and how well their export systems address these concerns, and how well both nations are complying with their international commitments to nonproliferation.

I want you to know that your full testimony will be submitted into the record, and we look forward to hearing your statements.

Mr. Spector, will you proceed?

TESTIMONY OF LEONARD SPECTOR,[1] DEPUTY DIRECTOR, CENTER FOR NONPROLIFERATION, MONTEREY INSTITUTE FOR INTERNATIONAL STUDIES

Mr. SPECTOR. Thank you, Mr. Chairman, and thank you for the opportunity to testify this afternoon on this topic. I will confine my remarks to the Russia case.

Sadly, Mr. Chairman, history is repeating itself, and it seems that Moscow has failed to absorb the unmistakable lessons of the past. Just like the careless, profit-hungry exporters of the 1960's, 1970's and 1980's that we had in the West, Russia today is driven by the desire for income and is engaged in a wide range of unwise exports, placing profits over proliferation concerns. I have attached a table to my testimony that highlights a number of these exports.

I will mention only the most troubling ones, and I will leave out Iran, since we have just had testimony from the administration on that. Russia has opened a nuclear Pandora's box in Syria, providing Syria with its first research reactor; it now will expand this cooperation to include power reactors. It has enhanced the prestige of the military junta in Myanmar by selling that country its first research reactor. It has agreed to help refurbish the Tajoura research reactor in Libya. And most troubling, at a time when the international community is intensely concerned about the threat of nuclear war in South Asia, Russia is assisting India to develop nuclear-capable cruise and ballistic missiles and is seeking to cash in through major sales to India's civilian nuclear power program, sales all other nuclear suppliers have renounced.

These activities with India violate the long-standing rules of the Missile Technology Control Regime (MTCR) and the Nuclear Suppliers Group (NSG).

I would underscore, Mr. Chairman, that these exports that I am describing are not inadvertent or the result of smuggling or activities that bypass official controls. As explained in greater detail in my written statement, not only are these exports all blessed by officials in Moscow, but these same officials have deliberately manipulated Russian export control laws to permit the sales.

Apart from the case I have cited, of course, there are smuggling cases to be concerned about. And I want to underscore a point made by Assistant Secretary Wolf about the lack of prosecutions. This is a very serious matter in the Russian case. And it really is

[1] The prepared statement of Mr. Spector with an attachment appears in the Appendix on page 44.

a pity that, at a time when we are spending so much and working so hard to stop leakage of nuclear materials from Russia, we do not have the benefit of being reinforced by a tough Russian compliance effort.

In view of these patterns, it seems clear that the fundamental problem is a lack of political will. Here I am also echoing Assistant Secretary Wolf. It is a lack of political will in Moscow to enforce a disciplined export control system.

How can we change the situation? The Bush Administration, like the Clinton Administration, has tried a number of approaches but with only limited success. It has raised U.S. concerns at the highest political level, most recently at the May 2002 summit. It has imposed sanctions against specific Russian entities involved in improper exports. It has publicized Russia's departures from international norms. It has spent millions training Russians export control officials. But despite these activities, the problems persist.

I would like to suggest several new avenues that might reinforce these efforts to improve Russian export behavior and give them additional substance.

The first is that I think it is time to indicate forcefully that members of the Missile Technology Control Regime and the Nuclear Suppliers Group are dissatisfied with Russia's behavior. My first thought was to propose that the United States actually seek to expel Russia from these groups for a period of time. The Australia Group, after all, which harmonizes chemical and biological weapon related export controls, does not have Russia as a member, and it seems to operate pretty effectively.

Administration officials pointed out to me that expelling Russia from the MTCR and the NSG would involve quite a few diplomatic headaches, not the least of which is the fact that neither the MTCR nor the Nuclear Suppliers Group has established rules for removing or suspending members.

So, at a minimum, I think a process is needed for the future, so that these groups can discipline their wayward members. A U.S. call for the establishment of such procedures would be a step that everyone would know was initiated with Russia in mind. I think it would be one more signal, even if we did not go the full extent of expulsion, one more signal to Russia of how serious we take the issue.

In the meantime, we might want to reinforce the public shaming of Russia through what might be called the equivalent of a nonproliferation "scarlet letter." The idea, basically, would be to make clear whenever we discuss the membership of the MTCR and the NSG that Russia is not necessarily a member in good standing and that issues have been raised about its compliance.

A second approach that might help reinforce U.S. nonproliferation efforts would be to take a leaf from domestic law enforcement. Here it is common for Federal officials, through the seizure of wrongdoers' assets or the imposition of fines, to seek to deprive malefactors of the ill-gotten gains of their illicit endeavors.

In addressing Russian export controls, the United States should adopt a parallel policy, a strategy that would reduce, dollar for dollar, assistance or benefits provided to Russia, so as to offset the profits that it gains from the sale of the Bushehr reactor to Iran,

or the other various things that we have been speaking about, including nuclear and missile sales to India.

It might be possible, for example, when the United States periodically rolls over Russia's sovereign debt, to reduce the amount of debt that is postponed by an amount equal to Russia's profits, so that, in the end, Russia would have to expend funds to pay off a portion of its debt. Thus it would be disgorging the illicit gains it had received, in order to pay off the amount of debt accelerated.

This would be the flip side of what is receiving considerable discussion now, that is, forgiveness of debt, if Russia adopts strong nonproliferation policies. My approach would be acceleration of debt to offset ill-gotten gains from improper nonproliferation policies.

Finally, we have to ask ourselves, how do we lead Russian officials to place nonproliferation over profit? In the end, the issue is one of education.

For more senior officials, it seems, education must be conducted in public, exposing them collectively to international calumny for their inappropriate policies. But more junior officials, those training to become officials, and journalists who track this issue in Russia, can be taught through more traditional means, for example, through mid-career training efforts, degree-granting programs that stress nonproliferation values, and through exchanges with Western countries that have embraced and implemented such values.

So those are three fresh ideas to bolster existing U.S. efforts: Do more public shaming through the processes of the two multilateral groups; try to go after ill-gotten gains; and reinforce nonproliferation education.

Thank you, Mr. Chairman. That concludes my remarks.

Senator AKAKA. Thank you very much, Mr. Spector.

Mr. Albright, will you please proceed with your statement.

TESTIMONY OF DAVID ALBRIGHT,[1] PRESIDENT, INSTITUTE FOR SCIENCE AND INTERNATIONAL SECURITY

Mr. ALBRIGHT. Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to testify today.

Nuclear proliferation today depends on illicit foreign assistance. Proliferant states are adept at exploiting weak or poorly enforced export controls and supplier states. In the past, many Western countries have been the source of items vital to the nuclear weapons programs of developing countries including Pakistan, India, Iraq, and Iran.

Russia must unfortunately be viewed as the current target for proliferant states and terrorist groups in their quest to obtain the ability to make nuclear weapons. Russia has made great progress in creating nuclear and nuclear-related export control laws and regulations following the demise of the Soviet Union. And this legal structure has been developed with extensive assistance from the U.S. Government and the nongovernmental community.

Despite these positive steps, there are serious problems in implementing this system. And I would like to just go through some of

[1] The prepared statement of Mr. Albright appears in the Appendix on page 51.

the problems that in our own work we have been able to identify in Russia; some of them have been identified before, some not.

The first is overemphasis on obtaining sales and exports without adequately weighing the security problems that could be caused by a sensitive export.

There is a shortage of effective internal compliance systems at Russian enterprises. Larger enterprises, particularly those with nuclear exports, are creating internal compliance systems, but they remain in need of assistance to make them effective. Many smaller companies and enterprises, particularly those outside Moscow, often lack rudimentary knowledge of the laws and regulations of the state.

There is inadequate education and training opportunities for employees at enterprises who must ensure that the exports of their enterprise are legal.There is a dearth of information at Russian enterprises that would enable sellers to check on the end-users in foreign countries. One Russian export control official told me that more than 90 percent of all Russian enterprises do not have books or other resources to research the companies buying their items. Thus, the seller has a difficult time checking whether the information provided by a customer is true or reliable.

There is also the inadequate enforcement of violators of export control laws, which I think has been covered several times.

Given all these problems, significant illicit or questionable sales are bound to occur in Russia unless more is done to strengthen its system. And at the minimum, one can say that, under current conditions, the Russian Government may be inadvertently encouraging the export of sensitive items to clandestine nuclear weapons programs.

U.S. assistance has been critical to improving the export controls in Russia. This assistance has reduced the risks that states such as Iran and Iraq will obtain nuclear weapons.

Toward the goal of further improving export controls, the United States and other Western governments need to continue stressing that stopping the spread of nuclear weapons, other weapons of mass destruction, and ballistic missiles is a key goal of the United States and the international community, and that effective national export control systems are a necessary part of working toward that goal.

The United States also needs to commit additional funding and expertise to help Russia implement its export control system. I would disagree that there is sufficient expertise or resources to deal with this problem in the places where it counts most, namely within the entities, enterprises, and in the bureaucracy in the government that deals with export controls.

U.S. nonproliferation interests motivate cooperation with Russian officials and experts to build a strong Russian nuclear and nuclear-related export control system. Developing adequate controls in Russia is challenging and will require extensive U.S. assistance.

The major benefit is that states such as Iran and Iraq will not find Russia the most attractive nuclear supermarket as they shop the world for items needed in their quest to build nuclear weapons.

Thank you.

Senator AKAKA. Thank you very much, Mr. Albright.

Mr. Milhollin, will you proceed with your statement?

TESTIMONY OF GARY MILHOLLIN,[1] EXECUTIVE OFFICER, WISCONSIN PROJECT FOR NUCLEAR ARMS CONTROL

Mr. MILHOLLIN. Thank you very much, Mr. Chairman. I am pleased to appear before the Subcommittee to discuss the important subjects of export control and arms proliferation.

I was going to do two things. First, give an overall view of what China and Russia has been exporting, but that's been pretty much accomplished here already. Second, I would like to make some recommendations concerning our sanctions laws.

The long list of exports by both Russia and China, I think, elicited a sigh from Senator Thompson, and I have a lot of sympathy for that. I look back over my own work, and I think I have been testifying before this and other Congressional committees for the better part of a decade and listing outrages, and the list just keeps getting longer.

And our policy is failing. We are not succeeding in changing this behavior. And it is simply not a rhetorical or political-diplomatic problem. It has real effects on the ground.

If we just look at India and Pakistan now, millions of people are really facing the threat of mass annihilation in those countries because of nuclear weapon and missile programs that were produced by, primarily, Russian and Chinese exports. If you subtract Russian and Chinese exports from these programs, certainly they would not have progressed to the extent that they did. It would have taken a lot longer, and some of them might not have succeeded at all.

So these actions, even though they are incremental and they happened over a long period of time, can work a great change in world security. And if there is a nuclear war in South Asia, it is a world problem. It is not going to be a regional problem. There is no such thing as a regional problem any more, if there ever was such a thing in the nuclear domain.

So what I would like to do is recommend some things that Congress can do, some things that would be fairly straightforward, that would show some commitment and might make things a little more difficult for the proliferators.

First, I would recommend that we change the sanctions law to forbid all trade with companies that commit violations. Today, we do not forbid all trade with these companies. A company that is on the list of companies sanctioned—for example, the ones that have just been sanctioned last month—are still free today to buy high-performance U.S. computers and free today to buy high-performance U.S. machine tools and a whole list of other very useful technologies for making nuclear weapons and ballistic missiles because these products operate just under the level that is controlled for export. The proliferators are perfectly free to import this equipment, and we do not even have a record-keeping system that tells us what they are buying or what they are doing with it.

So step one would be just cut off all trade with these companies and also cut off all of their exports to the United States.

[1] The prepared statement of Mr. Milhollin appears in the Appendix on page 56.

Second, we need to sanction more than just the organization that commits the offense; very often, it is a subsidiary.

And I know of cases where we sanction a subsidiary or indict a subsidiary, and the parent orders the same thing through a different subsidiary in the same organization. This has happened. And I am sad to say the Commerce Department lobbied in favor of the export. It was blocked because, I'll modestly claim, our organization publicized it.

But the point is that the sanctions do not have enough teeth. If you want to discourage this behavior, you are going to have to punish the parent company of these organizations rather than just punishing the organization and its subsidiaries. You need to go up the corporate chain as well as down.

Third, we need to extend the duration of the sanctions. Under the present law, the sanctions that we just applied to the Chinese companies—many of whom were recidivists; they had already been sanctioned or indicted before for the same conduct. We need to extend the duration. Rather than just forgetting about them after 2 years, we need to put them on what is called the "Entities List." That is a list that the Commerce Department maintains of companies that require an export license before anything significant can be sent to them. It would be a simple matter to put their names on the list.

In the case of China, there are only 14 company names on the list now. I gave this Subcommittee about a year ago a list of 50 companies that I think ought to be on the list. They are still not on the list.

It would be very simple to put more Chinese companies and more Russian companies on the list.

Fourth, we could bar the employees of these companies from entering the United States. In one case, one of the companies that was just sanctioned had already been indicted for diverting U.S. machine tools. Before it bought those machine tools, it sent a team over to the United States, to Columbus, Ohio, to look at the machine tools. That was the famous CATIC case. It would have been better for us if those officials had been stopped at the border.

One of the penalties for proliferation ought to be that you cannot send your folks to the United States.

Fifth, when we sanction somebody, we should ask our allies and trading partners to sanction them as well. We need to get support. We need to make these companies into international pariahs. And we need to ask for immediate assistance from our trading partners.

These are all simple things we could do to show that we are serious about this. There are other things that would be more Draconian, more expensive, more attention-provoking, which we probably should do, too.

But I think the solution to this problem is first to acknowledge, as Senator Thompson has pointed out, that what we are doing now is not enough; and, second, to look for things that we can do that will make the existing laws more effective.

Thank you very much.

Senator AKAKA. Thank you very much, Mr. Milhollin.

We have some questions for you, Mr. Spector.

Mr. Spector, other nations such as India have used the civilian nuclear power capability to develop a nuclear weapons program. Are there similarities in the development of India's nuclear program in the 1970's to Iran's today? And how critical to Iran's nuclear weapon program is Russian assistance to their civilian nuclear reactors?

Mr. SPECTOR. Well, I think there are some similarities, and there are some differences. India took technology that it acquired without oversight, without inspections or safeguards, and then did use it very deliberately to develop a nuclear weapon capability. I'm referring specifically to a research reactor and plutorium separation technology. Later, I think that they took advantage of again uninspected power reactors to at least have the opportunity to produce plutonium for the weapons program.

I think the situation is slightly different in Iran because in Iran the power plant will be under inspection, so it will be difficult to abuse that particular facility for a weapons program.

But what the Russians are doing in Iran is training hundreds of Iranians in the construction and management of sophisticated nuclear facilities. You are training them in operations. And all of that know-how can be transferred over to other parallel programs that are behind the scenes. And that is the process we saw in Brazil, for example.

So I think that remains a very serious case for concern.

As far as the details of what is being transferred to the Iranians apart from the Bushehr facility, I do not have additional details that I can provide. There was a case involving lasers that were stopped at U.S. request. And I think there was a mention of fuel-cycle facilities of one kind or another that are getting support from Russia, which Secretary Wolf mentioned just a while ago. I think the fine points are still classified, so I really cannot discuss them.

Senator AKAKA. Thank you.

Mr. Milhollin, I asked our administration witnesses about the Tracker computer system used to track nuclear components and materials. This system relies on participating governments issuing export licenses to input information into a computer.

Do you believe that this type of system would be useful in Russia or China? And do you think they would agree to adopt it?

Mr. MILHOLLIN. Well, the Tracker system, as I understand it now, is a computerized export control and processing tool that countries use to simply decide which licenses to grant and then to keep track of those licenses. So if you give this system to the Russians and the Chinese, it is entirely possible that it might improve their export control performance. That is, they might be more efficient and effective at deciding what to license and not to license.

But I must say that the problem in those countries is not one of having enough tools. The problem is one of having the will. And I think it is better to condition assistance to those countries on a change in attitude, rather than go forward with the assistance and hope that gratitude will produce the change in attitude. I think we need to have them come over to our side first in attitude and will, before we give them more export control assistance.

Senator AKAKA. Mr. Albright, in your testimony, you state that you have observed the need for improved controls over the sale of

Minatom nuclear assets and tracking of items sold within Russia that may be exported.

What nuclear assets is Minatom selling? And would they cooperate with efforts to improve controls?

Mr. ALBRIGHT. Yes. The example really refers to parts of a reactor that were being sold to a person in Russia. It turned out that, in this case, the officials discovered they did not have adequate controls over what that buyer would do with the item. There is a problem in Russia where things get bought by somebody, and are sold, or passed on, and then the government loses track of the item. It can end up God knows where. And so the idea was to try to focus on developing a system that creates a legal process that obligates the buyer, and a chain of documents that then would allow an item to be tracked.

This is not policy across Minatom, as far as I understand. It has been implemented at one nuclear site. But it is an issue that the Russians need to address.

Can I add one thing on a slightly different subject? I think it is very important when we look at Russia that we distinguish between what may be deliberate decisions or, as Senator Thompson put, turning a blind eye to exports to Iran or other places. I think there is a much greater risk that Russia is going to become a shopping market for illicit exports that will be directly sought by proliferant states, such as Iraq and Iran, that the Russian Government will not know about. And I think if you look at the history of illicit procurement, those types of sales typically are much more dangerous than deliberate exports.

I mean, Sandy mentioned the issue of Canada providing India a reactor, which they had then used to make its——

Senator THOMPSON. What is more dangerous?

Mr. ALBRIGHT. I think it is more dangerous that exports will happen out of Russia that the Russian Government will not even know about and will be directly going to nuclear weapons programs for that purpose.

And that was the concern in Germany in the 1980's. The German Government turned a blind eye to many exports. It supported the Bushehr reactor; it was building the Bushehr reactor. It was a real problem.

But if you look at the Iraqi case, the real danger was what was happening under the surface. That was direct aid to the Iraqi nuclear weapons program that the German Government and the export control officials were not knowledgeable about and, because they had such a lousy system, were in no position to catch.

And I think that I would like to distinguish here between attempts to get Russia to do the right thing. I mean, we had to force Germany to do the right thing, and I think they came along. Russia needs to do the right thing on Bushehr and in other cases—the Burmese reactor, several examples have been given.

But at this time, we should not lose sight that Russia's export control system needs help. And it could very well turn out that the Iranian or Iraqi nuclear weapons program are going to be directly benefited by the agents of those countries working secretly in Russia to acquire the items they need to make nuclear weapons. And

those items will turn out to be much more significant than some of the direct items that the Russian Government has approved.

Senator AKAKA. Before I defer to Senator Thompson, Mr. Albright, in Mr. Borman's testimony, he stated that the Department of Energy has an official in Moscow working with Minatom to focus on export controls on nuclear technology.

Will this type of coordination and assistance improve some of the controls and tracking over Minatom sales?

Mr. ALBRIGHT. Yes, I think it can. I was hoping the government witnesses would talk more about what they have accomplished. We tend to see things more at the level of some of the enterprises or some of the nuclear export control laboratories in Russia. And what we see is that not enough is being provided. There are real needs that the United States can meet.

And I mentioned end-use. It is a serious issue, if you are trying to do the right thing. You may have a bad attitude and you may weigh sales over security. But if you are trying to do the right thing, at least in principle, if you do not have any idea about end-users, then a buyer comes to you, you are very unlikely to disapprove that sale.

So there are some basic resource questions that I think need to be addressed. I do not think the U.S. Government is doing enough on that. And some of this, I think, is beyond what Russia can do. I mean, they do not have a history of commercial relationships with the rest of the world, and a lot of the people who are getting into this business are seeking to make money and need to be informed and held accountable.

Senator AKAKA. Thank you. Senator Thompson.

Senator THOMPSON. Thank you, Mr. Chairman. You mentioned the end-users, and the fact that Russia does not have any ability to keep up with the end-users. But we do not either, do we? I mean, are we doing much of a job at all in keeping up with end-users of some of the dual-use technology that we are exporting to China, for example?

Yes, Mr. Milhollin?

Mr. MILHOLLIN. Could I respond to that? We could do a lot better job than we do. We could help our exporters do a lot better job.

The list I suggested to the Subcommittee is a list of end-users. If the Commerce Department put that in the *Federal Register,* our exporters would know who these people are.

Actually, many of the exporters already know who they are. They have made a rather cold-blooded decision that they do not officially know who they are until they are in the *Federal Register*. Unfortunately, that is true for some companies—not for many.

I have spent a lot of time on export controls, talking to companies. And I have learned that there is a vast difference among companies. There are companies that will skate right out on the edge of what's legal and go over it, and other companies who do not want any problems, and they will be conservative.

I have a friend who defends these companies. He has a case right now in which a company made $15,000 on an export sale, and they have already spent $250,000 on lawyers' fees, dealing with the Federal Government. An intelligent company would want to know who

the bad guys are and would make the decision not to go down that road, because it is not worth it economically.

But our government, for some reason, is not filling out that list. And I was kind of hoping you would ask the Commerce Department that when they were here, "How come this list has so few names on it?"

That would be a very easy thing to do. We can do it overnight, and it should be done. In fact, we had a long list of Indian and Pakistani end-users that we put on the list after their tests.

Senator THOMPSON. But what about when we ship something to a company that's not a designated company, not on your list, but then is transferred from the company it is shipped to, to one of these other companies, and we do not know about it? We really do not have many people at all on the ground over there doing any kind of inspections in terms of end use, do we?

Mr. MILHOLLIN. We pick that up through intercepts. We pick up the transactions through all of the tax dollars that we are spending on listening to people. That is the only way we pick those re-transfers up. We pick them up through intercepts or penetration of a company or on the ground. But it is an intelligence question. That is our only defense.

Mr. ALBRIGHT. And one thing, what we do is much better than what Russia has done.

Mr. MILHOLLIN. Well, we at least want to do it.

Mr. ALBRIGHT. Yes.

Mr. MILHOLLIN. That's the big difference. We want to do it. Some of the Chinese do not want to do it.

Senator THOMPSON. Our much-maligned intelligence capabilities apparently are able to pick up all these transfers that are taking place that the Russian Government and Chinese Government say that they do not know about.

Mr. MILHOLLIN. That is true.

Senator THOMPSON. We have apparently much better intelligence than they do.

Mr. ALBRIGHT. Than they do?

Senator THOMPSON. I doubt it, in China's case.

Mr. MILHOLLIN. Sir, if I could make another point in response to a previous question? I think there is an analogy between Germany in the 1980's and China and Russia today. That is, Germany in the 1980's, as we have already heard, was a giant proliferation export problem. They supplied Iraq, they supplied Iran, they supplied everybody.

What we did finally was humiliate the Kohl Government in public over its sales to Libya of poison gas equipment, and that changed the German Government's view of the subject from the top. And when the view changed from the top, suddenly the German export control agency hired 100 new full-time equivalents. They had 1.5 FTEs working on export control before we went public with the horribles about the exports to Libya.

And so I think the lesson there is that you have to change the message at the top. And I think that's what Assistant Secretary Wolf was implying, is that once the guy at the top decides to send the message out, then it is a question of implementation. But the

first step is to change the message at the top, which is what happened in Germany. We changed the attitude at the top.

Senator THOMPSON. You would think it might have some effect when we catch the Chinese sending cable systems to help shoot down our airplanes in the no-fly zone. Doesn't seem to be working there.

Mr. Spector, on the issue of what the Russian officials know and when they know it, you seem to think, I hear in your statement, that not only are some of these export activities blessed by Russian officials in Moscow, but they have deliberately manipulated Russian export controls to also permit these sales.

Mr. SPECTOR. Yes, I think that is true. I think all of us are familiar with the case of the Tarapur fuel, the fuel for the Indian nuclear power plant. Here there is a very, very limited loophole that is permitted under the Nuclear Suppliers Group basically to deal with an imminent radiological catastrophe.

The Russians said, "Well, fuel is something you need to keep a reactor going, and we think a fuel export is really a safety export." So that was a very deliberate misinterpretation of the rules.

There is also a pattern here of skirting the MTCR regulations in the case of some of their cruise missile exports. The cruise missiles have capabilities that are just a fraction below, what would be very heavily regulated under the Missile Technology Control Regime. And it is not just missiles that are being exported; it is the manufacturing know-how for the missiles that is going as well.

We have a long history in India of taking that kind of technology and then upgrading it to obtain greater capability. Everyone is aware of this.

And I think, Russian officials, when they just fine-tune an export to be below the threshold, that's not an accident. That is done on purpose.

Thus I think I would really underscore the point that Gary Milhollin made about some public shaming of some of the officials and organizations involved. It was extremely effective in dealing with Germany's exports to Libya's Rabta chemical weapons plant, and I cite that episode, in fact, in my testimony as well.

Senator THOMPSON. I agree with you. And that is kind of what I was trying to suggest to our friends from the administration, that putting a smiley face on all this stuff is not the kind of message you ought to be giving. Just exactly the opposite, they ought to be held accountable.

This is a little off-track, I guess, but we mentioned Germany's history and so forth. How are our European friends doing nowadays, as far as these issues are concerned? I mentioned what is going on in terms of the Iraqi sanctions and that sort of thing. I guess it is a slightly different issue. But European countries are still exporting some troublesome dual-use items, are they not, to some troublesome countries?

Mr. ALBRIGHT. I think it is relative. I think they are doing much better in places like Germany, Austria, and Switzerland. And they have implemented pretty effective systems within companies to try to help catch illicit exports or discourage illicit exports.

The unfortunate thing is it is always a problem where, if it is not getting better, it is getting worse. And so I think vigilance is re-

quired, so I would not be surprised if there are problems in some European——

Senator THOMPSON. Well, I am not talking really about things that are slipping through the cracks. I am talking about policies of countries that seem to, up until recently anyway, not agree on the nature of the threat.

Mr. MILHOLLIN. I might be able to respond.

Senator THOMPSON. Mr. Milhollin, what do you think?

Mr. MILHOLLIN. My organization did a study recently of what Saddam Hussein was able to get. The Iraqis, during the period of the embargo against Iraq, broke the embargo by going to Eastern Europe. The inspectors in Iraq went through the documents there to see where Iraq was getting help. The lion's share came from Eastern Europe. There was a little bit from Western Europe but not much.

I think what happened was that the Western Europeans really got burned as a result of what they sold before the Gulf War. And so they have been more careful with respect to Iraq.

I am not so sure that is true in other cases. I think the Germans are still selling a lot to Iran. I do not know the details, but if you look at the statistics, a lot of controlled commodities are going out of Germany to Iran, and they are not making bubble gum.

So I think that is something, if I were a member of a Senate sommittee that could be briefed with intelligence information, I would ask that question. I would ask for a briefing on what Germany is selling to Iran.

Finally, in the case of France, the French have pushed hard against our holding up of things to Saddam Hussein under the oil-for-food program. And I think that now that we have a new regime in effect with looser controls, it would be nice to know what the French sell between now and a year from now under the oil-for-food program. I think that is another thing I would ask to be briefed on, because I suspect that there are a lot of companies waiting to get well as a result of the smoothed sanctions on Iraq.

Mr. ALBRIGHT. Can I add one thing? I think this threat question on Iraq is a problem with the Europeans. They have often resisted believing that Iraq could be getting nuclear weapons any time soon.

I know when some have given their intelligence assessment, they essentially discount the option that Iraq could obtain fissile material in Russia and then relatively quickly, within several months to a year, turn it into a nuclear explosive or a weapon.

So I do think there is always a need to educate our European allies about these threats, and I think it is unfortunately much worse when these discussions happen in Russia. I think Mr. Wolf mentioned, and I think others, that if you bring it up in Russia, they say exports that are illegal are not going to happen. I mean, forget the sanctioned ones. They say that their system is perfect and, even if violations do happen, those countries that would get them could not turn those things into nuclear weapons in any case.

Senator THOMPSON. Thank you, Mr. Chairman.

Senator AKAKA. Thank you.

Mr. Spector, some have suggested offering major financial incentives to compensate Russia for the economic losses it would suffer by ending assistance to Iran. Do you believe that increased aid to

offset financial losses could convince Russia to end all nuclear cooperation with Iran? Could other Russian interests, such as support for early entry into the World Trade Organization or debt relief, be used instead of direct financial assistance?

Mr. SPECTOR. Well, I think one of the challenges that we have had in dealing with some of the Russian exports is that they are, in fact, very lucrative, and so we need to find a financial mechanism for pulling Russia away from this. There has been discussion of trying to provide compensation and a couple of these ideas are not bad ones.

One idea that I thought deserved attention was the idea of permitting Russia to import spent fuel for storage from places like Taiwan or South Korea and charging a fairly high fee for this, Russia is hoping to implement this program. We control a lot of that fuel, and we could authorize these imports, if, in return, Russia would stop their export activities with Iran.

So there might be a way to create new revenue streams for Russia to compensate for some of these losses.

But I think there is a second approach we could also take, which I was recommending today, and that is that, if they persist in these exports, to deprive them of their ill-gotten gains by, in effect, increasing their debt requirement. That is, we would not allow them to roll over some of the sovereign debt or, perhaps, find other aid programs that might be cut back in a way that would make them no better off for having engaged in these activities.

I want to be very careful before suggesting that our nonproliferation aid programs is trimmed, because some of them are really crucial to American security. But other areas could be cut back.

Senator AKAKA. Otherwise, Mr. Albright, the Russian export control regime and entities authorized to implement the regime have changed several times over the past decade. Do you believe that it has become more effective through these changes?

Mr. ALBRIGHT. I think that, given where they started from in the early 1990's, I think the system is more effective, although I think what you really have in place is a set of laws and regulations, but it has not been implemented. I think that is going to be the difficult challenge, to implement this system so it becomes effective.

Senator AKAKA. Mr. Milhollin, in your testimony, you list several steps that Congress should take to punish Chinese entities that continue to export sensitive material. You suggest barring all American exports to those companies and extending the duration of the sanctions. Would you suggest the same steps for sanctioned Russian companies?

Mr. MILHOLLIN. Yes. In my testimony, I did not mean to limit that to Chinese companies. I think our law should apply across the board to any company that is caught in an export control violation. So, yes, I would apply that to Russian companies, Chinese companies, Indian companies, companies from any country.

Senator AKAKA. Mr. Albright, do you think these measures would be useful with sanctioned Russian companies?

Mr. ALBRIGHT. I am not sure how useful they would be if they were expanded. I do not see that as a way to force Russian action. There may be no other choice, but I think it is something that the Bush Administration has to press very hard on with the Russian

Government and make it clear that continued cooperation with the United States will depend on how they respond.

I worry a little bit on sanctions. You can sanction NIKIET, for example. I guess it is still under sanctions. They live with it. They are mad, but they live with it and continue. It is sending one good signal, however, which is NIKIET becomes an example to companies that want to do the right thing to not end up like NIKIET. But I do not think it is changing the situation dramatically.

And so I think it has to be dealt with directly between the U.S. Government and Russia, and then see how Russia performs and then take stock.

In any case, I think we do need to provide assistance to the effort to improve the export controls in Russia. And I would hate to see these things become intertwined to where, unless Russia performs in a certain way, we cut off the assistance.

Senator AKAKA. I would like to thank all our witnesses for their time and testimony.

Both Russia and China have pledged their support in the war on terrorism. However, I am not convinced of their commitment to nonproliferation.

I am concerned that they still believe that the war on terrorism and the spread of weapons of mass destruction are not linked. Granted, it took the events of September 11 to convince many in this Nation and several of our international allies of this link.

Do the leaders of Russia and China believe that it is in their national interests to enable state supporters of terrorism to development WMD? Do they believe that their citizens will be immune from a terrorist attack with chemical weapons or a radiological bomb?

I understand it would be easier to set aside many of these issues discussed today while we are trying to define new relationships with former adversaries. But we must raise the difficult questions. Both Russia and China have established laws and agencies to implement export control, but do they have the will to forego a short-term economic gain and enforce their export control regimes? As Mr. Milhollin suggested in his testimony, Russia and China may lack the will to enforce their own laws.

The United States should not have to stand alone in convincing Russian and Chinese leaders of these dangers.

I agree with Mr. Milhollin's statement that, when we cut off trade with a company because of an export violation, we should ask our allies to do the same. Mr. Albright has told us that many in Russia do not believe that proliferation is possible or that the consequences are so grave. Then we must do all we can to convince Russia and China that proliferation is occurring and that the threat is real.

Gentlemen, we have no further questions at this time. However, Members of this Subcommittee may submit questions in writing for any of our witnesses. We would appreciate a timely response to any questions. The record will remain open for these questions and for further statements from my colleagues. I would like to express my appreciation to all the witnesses for their time and for sharing their insights with us. This hearing is adjourned.

[Whereupon, at 4:40 p.m., the Committee was adjourned.]

APPENDIX

PREPARED OPENING STATEMENT OF SENATOR COCHRAN

Mr. Chairman, I'm pleased to join you today for this very important hearing. This Subcommittee has a long history of examining the threat from the proliferation of weapons of mass destruction and missile technology and especially the transfers of technology and knowledge from Russia and China.

In all of our past hearings we received testimony about the positive steps Russia and China were taking to curb and halt proliferation from their countries. These steps included bilateral promises to the United States and Russia and China's commitment to abide by the international nonproliferation regimes. Despite this, Russia and China continue to proliferate weapons of mass destruction and ballistic missile technology in direct contravention of their political commitments and legal obligations.

The threat from this proliferation and its consequences can clearly be seen today in South Asia. Pakistan and India are dangerously close to war. Because of technical assistance from Russia and China, both countries are armed with ballistic missiles and nuclear weapons.

China has been and continues to be the main supplier of technology to Pakistan. It is directly responsible for Pakistan's nuclear weapons and ballistic missile programs. Despite our repeated efforts, we continue to see troubling transfers and contacts between Pakistan and China.

Russia is the main supplier of technology to India. Last year, Russia began transferring nuclear fuel to India, in direct contravention of its Nuclear Suppliers Group commitments, and Russia remains a major source of technology for India's ballistic missile programs.

And South Asia is only one manifestation of the problem. This proliferation continues elsewhere, and if left unchecked, in 5 or 10 years, transfers of technology from Russia and China will result in nations like Iran and Iraq gaining nuclear weapons and long-range ballistic missiles. We must also be concerned about recipient nations, like Iran, becoming secondary suppliers, something that is already occurring.

I look forward to hearing from our witnesses and discussing what actions can be taken to reduce this proliferation.

Testimony by
Assistant Secretary of State for Nonproliferation
John S. Wolf
Senate Governmental Affairs Committee
Subcommittee on International Security, Proliferation and Federal Services

June 6, 2002

Mr. Chairman and Members of the Committee:

I welcome the opportunity to testify before you on behalf of the State Department on the important subject of our proliferation concerns with Russia and China. Nonproliferation is not just one of many issues in U.S. policy, but rather, as the President and many others have said, it is a cardinal issue, one on which we have to "get it right." It's fused in many ways to our effort to root out terrorism and to stop the flow of dangerous materials to countries that support terrorism and/or threaten key U.S. interests. Both Russia and China have helped in important ways in the fight against terrorism in the wake of the September 11 attacks, yet differences remain between us on critical nonproliferation issues. I would like to outline our concerns and describe some steps we have been taking to deal with the problems. I have just returned from a trip to Europe. I was delighted to hear from a senior official at the EU that they share our view that proliferation is one of two galvanizing threats confronting Europe. We are working to translate that understanding into more effective action that will complement and supplement the many activities the U.S. is pursuing.

Let me turn first to Russia, addressing your questions as follows: (1) What are our current proliferation concerns with Russia? (2) How does Russia participate in multilateral export control agreements? (3) How successfully has Russia implemented its agreements and enforced domestic regulations? (4) What assistance is the U.S. providing to Russia?

Proliferation Concerns

Any discussion of Russia needs to be put in perspective. The relationship is in the process of massive transformation from the adversarial relationship of the Cold War. The President's visit in May cemented important parts of the strategic arrangement we seek to reach with Russia. In addition to the treaty that Presidents Bush and Putin signed on reducing strategic offensive weapons, the Presidents also agreed to intensify efforts to combat the spread of weapons of mass destruction. Two days later, NATO initiated a new NATO-Russia Council that will help implement this undertaking. We remain concerned, however, that Russian entities are providing proliferant states with technology related to weapons of mass destruction (WMD)- and missiles.

Russia's cash-strapped defense, biotechnology, chemical, aerospace, and nuclear industries profit from exports and transfers to states on our list of state sponsors of

terrorism. Some Russian universities and scientific institutes have shown a willingness to earn needed revenues by providing WMD-related or missile-related teaching and training for foreign students.

We have engaged in high-level efforts to halt Russian sales to the proliferants. President Bush was quite direct in his conversation with President Putin last month. We have offered Moscow lucrative incentives to end sensitive cooperation with Iran and made clear that failure to do so will limit the scope of the new strategic framework we seek to build with Russia. Moscow's response to our efforts has been mixed. Russia updated its export control laws in 2001 and has limited some particularly dangerous exports. However, Russian entities continue to engage in a broad array of cooperative projects which aid the WMD and missile programs of countries of concern, as well as to sell these countries advanced conventional weapons (ACW). We also have made clear to Russia that it must take enforcement action to stop assistance to proliferators - and that does not mean just Iran. If Russian action does not terminate such assistance, U.S. sanctions may be required.

Participation in Multilateral Export Control Agreements

Our bilateral differences notwithstanding, the United States and Russia have worked for more than thirty years in support of the Nuclear Nonproliferation Treaty (NPT). Last fall, Presidents Bush and Putin reaffirmed their mutual commitment to the Biological Weapons Convention (BWC) and the Chemical Weapons Convention (CWC), and endorsed efforts to strengthen the NPT. In Moscow two weeks ago, Presidents Bush and Putin called on all countries - meaning Russia and the United States as well - to strengthen and strictly enforce export controls, interdict illegal transfers, prosecute violators, and tighten border controls to prevent and protect against proliferation. It goes without saying that conformance to treaties like the NPT, CWC, and BWC cannot be only a matter of degree.

Russia is a member of several of the multilateral export control regimes, including the Nuclear Suppliers Group (NSG), Missile Technology Control Regime (MTCR) and Wassenaar Arrangement. It is not a member of the Australia Group (AG), but controls the items on the AG control lists. In 1998 Russia adopted "catch-all" controls to cover unlisted items destined for WMD/missile programs, and in 1999 passed the Federal Law on Export Controls, which created a comprehensive basis for controlling items of proliferation concern. The Russian government has since enacted a number of implementing regulations under the new law, revamped the export control administration, expanded and updated its control lists and provided new authorities for punishing violations.

The framework for Russia's export control license procedures appears to be similar to that in the United States. Representatives of relevant agencies and ministries review all license applications and participate in an interagency Export Control Commission, chaired at lower levels by the Department of Export Control in the Ministry of Economic Development and Trade. Ultimate authority as to whether to approve or deny a license

resides with the President, and by his delegation, the head of the cabinet-level Export Control Commission chaired by the Prime Minister.

Implementation

Notwithstanding this export control framework, implementation and enforcement remains insufficient. The Russian Government on occasion has taken steps to investigate alleged violations. However, proliferators continue to have access to a wide range of sensitive technologies from Russian entities. In some cases official Russian export policy is contributing to the proliferation threat, such as with the decision to proceed with nuclear power plant cooperation with Iran.

Russian exports related to WMD and missiles to proliferant states take place in a complex environment. Strong economic motivation for enterprises to increase exports vie with mixed enforcement of export controls, a level of official corruption, and governmental policies that often confuse rather than clarify what is permissible and what is not. Russia's policy on such exports is generally to interpret its nonproliferation commitments narrowly. In selling uranium fuel to India in the face of overwhelming opposition from the Nuclear Suppliers Group, Russia made decisions contrary to the guidelines. Moscow also tends to downplay the threat posed by proliferant weapons programs and to express the belief that the limited technological capability of proliferant states will prevent them from developing WMD and missiles. That view is shortsighted and dangerous.

U.S. Assistance

We have been working with the Russian Government for several years to help strengthen its export controls and enforcement. This assistance played a significant role in creating the legal foundation for export controls that is now in place in Russia. It was a catalyst for industry-government outreach programs that educate Russian companies about their obligations under Russia's export control system. U.S. assistance has also funded installation of radiation detection equipment at a number of key transit and border sites throughout Russia to detect and interdict illicit nuclear transfers. With the legal and regulatory basis for Russia's export controls now essentially in place, our assistance efforts are increasingly focusing on enforcement efforts and working with customs and law enforcement officials on combating illicit transfers.

Ultimately, the Russian Government must demonstrate the political will and devote the necessary priority and resources to use these capabilities effectively to stop illicit transfers, as well as to set responsible policies for what constitutes legitimate transfers. It has not yet done so. We will continue to press Moscow for this commitment.

And now I would like to turn to China, addressing your questions in the following order: (1) In what way does China participate in multilateral export control agreements? (2) What are our current nonproliferation concerns with China? (3) How successfully has

China implemented its multilateral export control agreements? (4) What assistance is the U.S. providing to China?

Participation in Multilateral Export Control Agreements

Like Russia, China is a party to the key treaties to prevent the proliferation of weapons of mass destruction, acceding to the Biological Weapons Convention in 1984, the Nonproliferation Treaty in 1992, and ratifying the Chemical Weapons Convention in 1997. As a relative newcomer to nonproliferation, China's policies are still evolving and, aside from the NPT-related Zangger Committee, China does not belong to any of the multilateral export control regimes.

China remains the only member of the Zangger Committee that is not also a member of the Nuclear Suppliers Group, which requires full-scope safeguards as a condition of nuclear supply to non-nuclear weapon states. China has not yet been willing to accept the full-scope safeguards policy, although it has expressed some interest in joining the NSG.

China's nuclear export control regime applies not only to Zangger Committee Trigger list items, but also to so-called dual-use items that have both civilian and military applications. For transfers of both Trigger and dual-use items to a non-nuclear weapons state (NNWS), China requires nuclear non-proliferation assurances. In May 1997, China's State Council approved a circular notice to government and industry requiring strict implementation of China's nuclear export policy of not assisting other countries to acquire nuclear weapons. In September 1997 China promulgated nation-wide nuclear export control regulations accompanied by a list of controlled nuclear items which is identical, the Chinese informed us, to the Nuclear Suppliers Group Trigger List. In June 1998 China's State Council promulgated regulations, on control of nuclear dual-use items and related technology.

Proliferation Concerns

We continue to have concerns about Chinese nonproliferation behavior. In particular, we want to ensure that Beijing fully lives up to its May 1996 commitment not to provide assistance to any unsafeguarded nuclear programs and facilities. In October 1997, China gave the United States assurances regarding its nuclear cooperation with Iran. China agreed to end cooperation with Iran on supplying a uranium conversion facility (UCF) and to end further cooperation after completing within a reasonable period of time two existing projects - a zero-power reactor and a zirconium production plant. We will continue to evaluate whether subsequent interactions between Chinese and Iranian entities are consistent with the Chinese "no new nuclear cooperation" pledge.

With regard to chemical and biological weapons, China is a Party to the Biological Weapons Convention and the Chemical Weapons Convention. But China's chemical-related export controls are not yet up to the Australia Group standard and only cover 10 of the 20 Australia Group-listed items not also on the CWC schedules. Chinese officials

have told us they plan shortly to increase coverage to reach the Australia Group standard. This would be a welcome improvement. However, loopholes remain in Chinese controls and enforcement. Since 1997 the U.S. has imposed sanctions on 13 Chinese entities under the Chemical and Biological Weapons Control and Warfare Elimination Act of 1991 and the Iran Nonproliferation Act of 2000.

In November 2000, China committed not to assist, in any way, any country in the development of Missile Technology Control Regime (MTCR) Annex-listed ballistic missiles, to improve and reinforce its export control system, and to publish at an early date a comprehensive missile-related export control list and related regulations. However, China has failed to fully implement its commitments. Chinese entities have recently provided Pakistan with missile-related technical assistance. In addition, firms in China have provided dual-use missile-related items, raw materials, and/or assistance to several other countries of proliferation concern – such as Iran, North Korea, and Libya. In September 2001, the U.S. imposed missile sanctions on Chinese and Pakistani entities for their involvement in the transfer of MTCR Annex Category II items that contributed to Pakistan's MTCR Annex-listed ballistic missile program. We have had discussions, including by President Bush this spring in Beijing, concerning China's failure to implement fully its November 2000 commitments.

Implementation

There is a continuing gap between the commitments China has made and its implementation of these commitments. We remain concerned about gaps and loopholes in Chinese export controls, as well as by exports by entities with and without government concurrence. China still has not promulgated all the laws and regulations that would implement the nonproliferation policy that Chinese officials at every level say is China's policy. There will be no horse trading. Our view is very clear. If China's policy is as it describes - opposition to proliferation - then it needs to put the tools in place and use them effectively.

U.S. Assistance

The U.S. has taken modest steps to help the Chinese identify problems in their export control systems. The Department of Commerce (DOC) has conducted a seminar on U.S. export control regulations for the Ministry for Trade and Economic Cooperation (MOFTEC), the Ministry of Foreign Affairs (MFA) and the U.S. and Chinese business communities in China. It has also brought MOFTEC officials to the U.S. to exchange views with DOC export control officials.

A Final Word

The message is same for our oldest friends and our newest: as in the war on terrorism, one cannot be neutral. Results, not words, are the means by which we can measure China's, Russia's, or indeed any other country's commitment to the effort to stem proliferation. President Bush made clear at the time of the Beijing summit that China's fulfillment of its nonproliferation commitments would be an important factor in determining how far the new U.S.-China relationship can develop. He said the same thing to the Russians in Moscow in May. We will rely on international treaties and multilateral agreements. We will work actively with friends and allies, as I discussed last week in Vienna, Berlin, and Brussels at the EU and NATO. But we will also work bilaterally and, when necessary, unilaterally to stop the flow of weapons and technologies that constitute a direct threat to the US, our forces stationed abroad, our allies, and our friends.

Testimony of Matthew S. Borman
Deputy Assistant Secretary for Export Administration
Bureau of Industry and Security - Department of Commerce
Before the Subcommittee on International Security, Proliferation and Federal Services
Senate Governmental Affairs Committee
"Russia and China - Non-Proliferation Concerns and Export Controls"
June 6, 2002

Mr. Chairman and Members of the Subcommittee:

Thank you for the opportunity to testify at this hearing. The effectiveness of the export control systems of Russia and China is an important subject made even more important by the events of September 11. The subcommittee is to be commended for its attention to this topic.

My testimony will describe the dual-use export control systems of Russia and China and the status of the U.S. government's dual-use export control cooperation program with each country. My descriptions of the dual-use export control systems of each country are based on the Department of Commerce's involvement in export control cooperation programs with these countries.

Russia

Export Control System

Russia's current dual-use export control system has continued to evolve since its beginnings in the early 1990s. Russia is a member of the Wassenaar Arrangement, the Nuclear Suppliers Group, and the Missile Technology Control Regime. Russia is also a member of the Exporter's Committee (commonly called the Zangger Committee) under the Nuclear Nonproliferation Treaty. Russia is not a member of the Australia Group. Russia is a State Party to the Chemical Weapons Convention and the Biological Weapons Convention. In summary, Russia has:

- an export control law for dual-use items;
- implementing regulations, including control lists and catch-all controls;
- interagency review of export license applications;
- an outreach program for exporters;
- limited enforcement capability.

I will now discuss each of these elements in more detail.

Russia enacted an export control law in 1999. This law authorizes control over the export of all items (commodities, software, and technology) on the lists of the four multilateral export control regimes and chemicals covered by the Chemical Weapons Convention. The law also provides authority to impose catch-all controls – control over items that otherwise would not require an export license if the exporter knows or is informed by the government that the export will go to a weapons of mass destruction purpose.

Other notable provisions of the law cover:

- Establishment and revision of control lists;
- License review and issuance process;
- Recordkeeping and inspection requirements;
- International cooperation;
- Public dissemination of export control information;
- Administrative penalties, including denial of the authority to export for up to three years, for individuals and companies;
- Mandatory internal control programs for defense enterprises.

Criminal penalties for violations are set forth in the criminal code. Criminal penalties can be up to 12 years in prison with confiscation of assets or penalties pegged to the minimum wage.

Russia has a series of Presidential decrees that implement this law. Generally speaking, there is at least one decree, with a corresponding list of controlled items, for each of the regimes. This system of multiple control lists is different from the system used by the United States and many of the other members of the multilateral export control regimes. The United States and the European Union have one unified control list of dual-use items (items that have civilian and military applications). Russia also has a form of catch-all controls that prohibits exports of uncontrolled items if the exporter knows they will be used for developing or operating weapons of mass destruction or missile delivery systems.

Russia's structure and process for implementing its dual-use export control system is as follows. The Export Control Department of the Ministry of Economic Development and Trade is the lead agency for the promulgation of regulations and the processing of export license applications. Once an application is filed, several ministries, including the Ministries of Foreign Affairs, Defense, and Atomic Energy, can recommend approval or denial. There is an interagency committee that reviews license applications. While there is no formal interagency dispute resolution process, a dissenting ministry can escalate its position to higher political

levels.

Russian export control officials have put considerable effort into outreach to defense enterprises. In cooperation with the United States, the Russian government and a Russian nongovernment organization (the Center for Export Controls) have conducted outreach to more than 900 enterprises over the last several years. These outreach programs seek to inform exporters, or potential exporters, of their obligations under Russia's export control law and regulations. These outreach programs also introduce Russian enterprises to the concept of an internal control program. As noted in my November 2001 testimony, the U.S. government developed software for Russian enterprises to use to establish their own internal control programs.

Russia's export control system is enforced by a combination of the Customs Service, the intelligence service, and the federal prosecutors. Russia is in the process of establishing a specialized enforcement unit within the Ministry of Economic Development and Trade based on amendments to Russia's Administrative Code, which now authorizes civil enforcement actions and penalties for export control violations. Regarding Russia's enforcement of its own regulations, while Russia has not yet provided any documentation on the number or substance of enforcement cases, Russian officials have begun providing some information on enforcement cases. It is clear from a variety of sources, however, that there have been a number of exports from Russia that would appear either to constitute violations of Russia's export control system.

Cooperation

The United States has had an ongoing export control cooperation program with Russia since 1996. The initial stages of this program entailed the exchange of basic information about each country's dual-use export control system. In these exchanges, the U.S. had to overcome a view of some Russian officials and exporters that the U.S. was encouraging Russia to adopt effective export controls merely to preserve market advantages for U.S. companies.

Since 1996, the U.S. has held several dozen technical export control exchanges with Russia. These exchanges covered the legal basis and regulatory framework for export controls, control lists and licensing procedures, enforcement, and industry outreach. As noted above, the most extensive part of the program to date has been support of Russia's industry outreach program including dissemination of the internal control program software to several hundred enterprises since 1998.

Overall, this cooperation has achieved concrete results. Russia has a legal basis for its dual-use export control system. Russia has promulgated a basic set of implementing regulations. A significant number of enterprises have received training in Russia's export control requirements and have established their own internal control programs.

A recent study of the industry outreach program by the University of Georgia's Center for

International Trade and Security indicated that the program has been successful. For example, the study indicated Russian defense enterprises generally often lacked basic information about Russia's dual-use export control system prior to participating in the outreach workshops. Only 5 percent of those surveyed said they already had the export control information provided during the workshops while 80 percent said that they only had access to the control lists because of the material distributed during these activities. Over 90 percent of those surveyed found the internal control program software distributed at the workshops to be useful in complying with export control requirements and about 70 percent stated that their enterprise had assigned a person responsibility for export control compliance. Notwithstanding the achievements of this program, more enterprise training needs to be done. Even after the workshops, only 20 percent of those surveyed characterized their knowledge of Russia's export control requirements as good. We continue to work with Russia and the Center for Export Controls to conduct follow-up workshops to enhance knowledge of export controls in the defense enterprises. In addition, the Department of Energy, in coordination with the Department of Commerce and the Center for Export Controls, conducts workshops with nuclear industry enterprises.

Our attache in Moscow also plays an important role. In addition to conducting end-use visits to ensure U.S.-origin items are being properly used, he serves as a resource for Russian export control officials and industry representatives with questions about how the U.S. export control system works. The Department of Energy also has an attache in Moscow. That attache focuses on export controls on nuclear technology working with the Center for Export Controls and the Ministry of Atomic Energy.

It appears that Russia is now ready to focus more on enforcement of its export control system. The Export Control Department has requested programs in the prosecution and enforcement of administrative violations. We have begun planning for such programs. We anticipate working with Russia on a range of enforcement issues, including review of preventive and administrative enforcement activities and training for prosecutors and judges. Establishment of an effective administrative enforcement program would be an important accomplishment. In our experience, administrative enforcement is essential to obtain a high degree of compliance by exporters.

China

Export Control System

The U.S. government in general, and the Department of Commerce in particular, have had no comparable export control cooperation program with China. Thus, there is less I can testify to regarding China's export control system.

China is a member of the Zangger Committee but not of any of any of the other multilateral export control regimes. China is a State Party to the Chemical Weapons Convention and the Biological Weapons Convention.

China does have a general foreign trade law but does not have a separate export control law. Over the past few years, China has promulgated regulations governing the export of nuclear related dual-use items and chemical weapons precursors. China has also indicated in 2000 that it would issue regulations governing the export of missile technology but has yet to do so.

Cooperation

Technical discussions between the United States and China have been extremely limited. In 1999, a Chinese delegation came to Washington, D.C. for a general overview of the U.S. export control system. No subsequent meetings have been held.

The Department of Commerce did put on a seminar on U.S. export controls for businesses operating in China in the fall of 2000. This seminar focused on educating importers in China on the requirements of the U.S. export control system. It was not conducted as a government to government meeting. We hope to put on a similar seminar early in 2003.

Conclusion

In summary, Russia has an export control system based on a comprehensive law, control lists covering all the multilateral regime items, a basic regulatory structure, an interagency review process, and an extensive industry outreach program. Russia's most significant weakness is its ability to enforce its export control system.

China's export control system is much less transparent. While there are some export control regulations, we have not had any extended cooperation program that would allow me to discuss the structure or functioning of China's export control system.

Testimony of Leonard S. Spector
Deputy Director
Monterey Institute Center for Nonproliferation Studies

Thank you, Mr. Chairman for the opportunity to testify this afternoon on a subject of high importance to international security: Russian exports of equipment and technology that may contribute to the proliferation of weapons of mass destruction and missiles for delivering them.

Sadly, Mr. Chairman, this is an area where we are seeing history repeat itself and where, it seems, Moscow has failed to absorb the unmistakable lessons of the past.

In the 1960s, 1970s, and 1980s, the world witnessed eager, profit-oriented exporters carelessly sell sensitive commodities that recipient states later misused to support weapon-of mass-destruction programs.

During the '60s, the United States and Canada provided India the CIRUS research reactor, but they did so under weak controls. Later, India misused the facility to produce plutonium for its 1974 nuclear test.

In the 1970s, the desire for profits and influence led France to sell Iraq the Osiraq reactor (which Israel destroyed in 1981) and to promise Pakistan and South Korea facilities for extracting weapons-usable plutonium from spent nuclear power plant fuel. The 1970s also saw Germany offer Brazil, then under military rule, the equipment needed to produce fissile materials. Only the strongest diplomatic intervention by the United States persuaded France and Germany to curtail the most sensitive of these exports.

In the 1980s, weak interpretation and enforcement of export controls in a number of Western countries, particularly Germany and Switzerland, enabled Pakistan to acquire crucial facilities to support its nuclear weapons effort, permitted Libya to build the Rabta chemical weapons plant, and allowed Saddam Hussein to advance multiple weapon-of-mass-destruction and missile programs.

Slowly, but with increasing resolve, Western suppliers recognized the dangers of allowing profit to guide their export decisions, and they have

moved to tighten export control rules and enforcement. Today, the newly appreciated danger that terrorist organizations are seeking to acquire weapons of mass destruction makes this mission all the more urgent.

Unfortunately, Moscow has not heard the message and, driven by the desire for profit, is engaged in a wide range of unwise exports. (See table, attached.) The Bush Administration has highlighted Russia's disturbing trade with Iran in the nuclear and missile areas, which I will not reiterate here. But the Russian government is also permitting – indeed encouraging – other, highly disturbing exports.

- It has opened the nuclear Pandora's box in Syria by selling a large research reactor to that country, which we consider to be a state-sponsor of terrorism and which is known to have an extensive chemical weapon and missile arsenal. Although, like the Osiraq reactor, this facility will be subject to monitoring by the International Atomic Energy Agency (IAEA), the reactor will help train Syria's first generation of nuclear scientists and, like Osiraq, has sufficient power for the clandestine production of plutonium.
- Moscow, similarly, has enhanced the prestige of the widely condemned military junta in Myanmar by signing a contract to provide that state with its first research reactor.
- Moscow is also helping to refurbish the Tajoura Nuclear Research Center, in Libya, a country with a significant chemical weapon arsenal and which is seeking to expand its missile capabilities. Although the Tajoura reactor is under IAEA inspection, Russia's assistance will mean more and better training for Libyan nuclear specialists, whose next project may be a clandestine nuclear weapons program.
- Most troubling, however, is that at a time when the international community is intensely concerned about the threat of nuclear war in South Asia, Russia is assisting India to develop nuclear-capable cruise and ballistic missiles and is seeking to "cash in" through major sales to India's civilian nuclear power program. These activities violate the long-standing rules of the Missile Technology Control Regime (MTCR) and the Nuclear Suppliers Group.

I should underscore, Mr. Chairman, that these exports are neither inadvertent, nor the result of smuggling activities that by-pass official controls. Indeed, not only are these exports all blessed by officials in Moscow, but these same officials have deliberately manipulated Russian export control laws to permit these sales.

It is clear, for example, that Russian cruise missile technology exports, while technically complying with the MTCR, will provide India the ability to build systems with greater range and payload capabilities that would violate that regime, if exported directly. India has a widely-known history of exploiting missile technology in this way, a history to which Russia is cynically turning a blind eye.

Moreover, to permit the export of 58 metric tons of fuel for the Tarapur reactors, Russian export control officials grossly distorted an exception to the Nuclear Supplier Group Guidelines. The Guidelines permit exports to countries like India on safety grounds, only if such exports are "essential to prevent or correct a radiological hazard to public health and safety. which cannot reasonably be met by other means." Russian export officials asserted that the export of the Tarapur fuel met this standard – a view that all other members of the Nuclear Suppliers Group, save Belarus, have publicly and repeatedly rejected.

Although these exports do not involve smuggling, smuggling of Russian WMD and missile commodities remains a distinct and dangerous dimension of Russian weapons of mass destruction and missile exports. The most notorious case of smuggling involved the sale of some 800 missile components by Russian entities to Saddam Hussein, in 1995. UN inspectors discovered many gyroscopes and other components in Iraq, where Iraqi officials had dumped them into the Tigris River in an attempt to hide them from the UN teams. Although details of the smuggling operation were widely publicized, Russian authorities never prosecuted those involved.

Indeed to this date, there have been few prosecutions in Russia for smuggling activities, and those that have occurred have resulted in minimal penalties for offenders. Given the dangers of leakage of WMD materials from Russia, it is extremely unfortunate that efforts to prevent such leakage, on which the United States is spending hundreds of millions of dollars, are not being reinforced by the deterrent effect of aggressive Russian prosecution.

Given these patterns, it seems clear that the fundamental problem is a lack of political will in Moscow to enforce a disciplined export control system, an export control system that gives a higher priority to nonproliferation than to profit.

How can we change this situation? The Bush Administration, like the Clinton Administration, has tried a number of approaches, but with only

limited success. It has raised U.S. concerns at "the highest political level," most recently at the May 2002 Moscow Summit. It has imposed sanctions against specific Russian entities involved in improper exports. It has publicized Russia's departures from international norms. It has spent millions training Russian export control officials. Despite these efforts, the problems persist.

I would like to suggest several new avenues to reinforce these nonproliferation efforts.

First, it may be time to indicate more forcefully that other members of the Missile Technology Control Regime and the Nuclear Suppliers Group are dissatisfied with Russia's behavior. My first thought was to seek to expel Russia from these groups for a period of time. Russia is not a member of the Australia Group, which harmonizes chemical- and biological-weapon related export controls, but that organization is able to work quite effectively without Moscow's participation.

Administration officials have pointed out to me, however, that expulsion would entail many diplomatic headaches, not the least of which is the fact that neither the MTCR nor the NSG has established rules for removing or suspending members.

At a minimum, such a process is needed for the future, so that the groups can discipline their wayward members. A U.S. call for such procedures, a step which all observers would know was initiated with Russia in mind, would be one more signal to Moscow of the seriousness of U.S. concerns.

In the meantime, the United States should reinforce the public shaming of Russia through the equivalent of a nonproliferation "scarlet letter." In its official pronouncements describing the members of these organizations Washington should include a note or asterisk stating that the "United States" or "some members" of the groups "have raised concerns that Russia is not in full compliance with the guidelines of the [the Missile Technology Control Regime] [Nuclear Suppliers Group]. *

A second approach would be to take a leaf from domestic U.S. law enforcement. Here it is common practice for federal officials, through the seizure of wrongdoers' assets or the imposition of fines, to seek to deprive

* In taking this step with respect to the MTCR, it will be important for the United States to leave no doubt that it is, itself, in full compliance with the group's guidelines. It is possible that some cooperative activities with other states in the area of ballistic missile defenses could raise questions in this regard.

malefactors of the financial gains they have obtained from their illicit activities. In addressing Russian export controls, the United States could adopt a parallel strategy by reducing dollar-for-dollar the benefits it provides Russia, so as to offset the profits Russia makes from improper exports.

It might be possible, for example, when the United States periodically "rolls over" Russia's sovereign debt to reduce the total amount of debt postponed by an amount equal to Russia's profits from dangerous exports. This, in effect, would force Russia to disgorge its illicit gains to pay off the amount of debt so accelerated.

The Clinton Administration was reluctant to link macro economic stabilization activities to nonproliferation, but this approach would have a modest impact on the overall Russian economy while sending a very strong signal regarding U.S. concerns.

Finally, we have to ask ourselves, "How do we lead Russian officials to place nonproliferation over profit?" In the end, the issue is one of education. For more senior officials, education, it seems, must be conducted in public, exposing them collectively to international calumny for their inappropriate policies. But more junior officials, those training to become officials, and journalists can be taught through more traditional means – for example, through mid-career training and degree-granting programs that stress nonproliferation values and through exchanges with Western countries that have embraced and implemented such values.

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This concludes my remarks, Mr. Chairman. I would be pleased to answer any questions you may have.

RUSSIAN WMD AND MISSILE EXPORTS OF GREATEST CONCERN
TO THE UNITED STATES

	Importing Country	Item	U.S. Concerns	Status
NUCLEAR				
	Iran	Bushehr Nuclear Power Plant (NPP), Unit 1	Permitted under NPT; subject to IAEA inspections; will provide Iran training in nuclear facility construction and operation; may provide cover for sensitive nuclear exports and training.	Under construction; start-up planned, 2003-2004; talks underway re: second NPP at site
		Sensitive nuclear items, technology	Few details in open literature; related to production of fissile materials for nuclear weapons. NPT requires Iran to place new nuclear facilities under IAEA inspection once nuclear materials are introduced. No violation identified to date. Russian sale of lasers possibly useful for uranium enrichment cancelled after U.S. raised concerns. "Russian entities continued to interact with Iranian research centers on various activities. These projects will help Iran augment its nuclear technology infrastructure, which in turn would be useful in supporting nuclear weapons research and development." (CIA, reporting on activities in first half of 2001.)	On-going
	India	Koodankulam NPP, Units 1 & 2 (1000 MW(e) VVER-1000)	Generally viewed as violating Nuclear Suppliers Group (NSG) Guidelines 1992 rule banning nuclear exports to countries that refuse to place *all* nuclear facilities under IAEA inspection ("full-scope safeguards"). NPPs will themselves be placed under IAEA inspection, but other Indian facilities remain uninspected. Russia claims its contract (signed in 1988) predates NSG rule and is exempt. Transfer likely includes technology not included in original 1988 deal.	Construction begun Jan. 2002
		Koodankulam NPP, Units 3 and beyond	Violates NSG full-scope safeguards rule because not included in original 1988 deal.	Contract signed Nov. 2001 for Units 3 & 4
		Fuel for Tarapur NPP (58 metric tons low enriched uranium.)	Though fuel will be under IAEA inspection, export violates NSG full-scope safeguards rule. Other NSG members reject Russian view that material is exempt under NSG rule permitting exports of safety-related equipment to avert an imminent threat to public health and safety.	Fuel exports began in 2001.
		Lease of two nuclear powered Akula II attack submarines for five years	Unprecedented (except for earlier Soviet-to-India n-sub lease of 1988-91). Not banned by NPT or NSG; may include cruise missile launch technology regulated (but not banned) under MTCR. Significant and unique escalation in level of weaponry transferred to a developing country. Will support Indian development of indigenous nuclear-armed ballistic missile submarine.	Negotiations continuing
		Assistance for the ATV n-powered ballistic missile submarine	Few details in open literature. Together with assistance for Sagarika, subject to regulation under MTCR. Unprecedented transfer of technology to a developing country.	Status uncertain

	Importing Country	Item	U.S. Concerns	Status
NUCLEAR, continued	**Syria**	25 MW(t) Dayr Al Jajar research reactor	Reactor to be under IAEA inspection. Light-water pool-type reactor could require weapons-usable highly enriched uranium fuel. Size of reactor could permit secret production of plutonium. Reactor introduces nuclear technology to a country viewed by United States as a state sponsor of terrorism and as possessing CW and possibly BW, as well as short-range missiles.	
		Nuclear power cooperation	Agreement signed January 2000. Could provide extensive training and cover for sensitive exports, as in Iran.	No apparent developments
	Myanmar	10 MW(t) research reactor	Reactor will be under IAEA inspection, but with training activities introduces nuclear technology to a country opposed to democratic values. Need to determine whether reactor will use weapons-usable "highly enriched" uranium as fuel.	Contract for export signed; deliveries in 2003
	Libya	Refurbish Tajoura Nuclear Research Center	Although facility is under IAEA monitoring, cooperation enhances training of nuclear specialists in a country considered to be a sponsor of terrorism and possessing chemical and, possibly, biological weapons and seeking longer range missiles.	On-vgoing
MISSILE				
	Iran	Assistance for Shahab III MRBM	Few details regarding specifics of Russian transfers in the open literature. CIA characterizes assistance as "crucial."	Missile tested on several occasions
	India	Assistance for Sagarika submarine-launched ballistic missile	Open literature indicates this project is continuing. Assistance in developing the missile and providing technology for its manufacture would be a major violation of the MTCR. Russia and India have denied collaborating on the project, but U.S. officials remain concerned.	
		BrahMos PJ-10 cruise missile production technology	PJ-10's 300 km range, 250 kg payload is below MTCR "Category I" level (300 km/500 kg), but India may be able to increase system's capabilities.	Undergoing flight tests; full production planned for 2003
		3M-54E/ E1 "Klub" cruise missile	Klub's 300 km range, 300 kg payload is below MTCR "Category I" level (300 km/500 kg), but India may be able to increase system's capabilities.	Purchased; in service
		12KRB cryogenic rocket engine; joint	Used as third stage of Indian Geostationary Satellite Launch Vehicle (GLSV); if production technology transferred, could provide India with ICBM capability.	New Russian engine sales recently announced.
	Syria	Unspecified	"Foreign equipment and assistance for its liquid-propellant missile program—primarily from North Korean entities, but also from firms in Russia—have been and will continue to be essential for Syria's effort." (CIA, reporting on activities in first half of 2001.)	
CHEMICAL/ BIOLOGICAL				
	Iran	Unspecified	"During the first half of 2000, Russian entities remained a significant source of dual-use biotechnology, chemicals, production technology, and equipment for Iran." (CIA, reporting on activities in first half of 2001.)	
	Syria	Unspecified		

IAEA: Int'l Atomic Energy Agency- **NPT:** Non-Proliferation Treaty - **MTCR** = Missile Technology Control Regime

Nuclear Non-Proliferation Concerns and Export Controls in Russia

Testimony before the Governmental Affairs Subcommittee on International Security, Proliferation, and Federal Services

By David Albright
President, Institute for Science and International Security (ISIS)
June 6, 2002

Leakage of sensitive nuclear or nuclear-related equipment, materials, or technology from Russia remains a troubling concern. Such leakage may have contributed or could contribute significantly to the nuclear weapons programs of Iraq, Iran, or North Korea. It could also allow terrorists to obtain items needed to turn plutonium or highly enriched uranium into nuclear weapons.

Nuclear proliferation depends on illicit foreign assistance. Proliferant states are adept at exploiting weak or poorly enforced export controls in supplier states. In the past, many Western countries have been the source of items vital to the nuclear weapons programs of developing countries, including Pakistan, India, Iraq, and Iran. Russia must, unfortunately, be viewed as a current target for proliferant states and terrorist groups in their quest to obtain the ability to make nuclear weapons.

Russia has made great progress in improving its system of laws and regulations to license and control its sensitive exports. But it faces major problems in implementing its system of controls. Lack of resources, inadequate company internal compliance systems aimed at stopping illicit exports, a poor export control culture, and a desperate emphasis on commerce slow progress on the creation of an effective export control system.

Russia is not the first country to confront these challenges. One has only to remember West Germany and Switzerland in the1980s to discover similar problems. Fortunately, these countries had the necessary resources to fix deficiencies in their export control systems.

Russia, however, lacks sufficient resources to implement its own export control laws and regulations and has a growing and influential business culture that disdains such controls. As a result, the United States and Western allies must provide both the pressure to reform the Russian system and much of the resources required to do so. Assistance, so far, has been insufficient to solve the task at hand.

The concerns and views I express today are based on my investigations of secret nuclear weapons programs and the critical role of illicit foreign procurement to these programs. I have studied Iraqi procurement methods for many years, particularly during the 1990s

when I cooperated with the International Atomic Energy Agency (IAEA) Action Team that was responsible for carrying out inspections in Iraq. I currently lead an ISIS project in Russia that works with Russian export officials to improve appreciation of the importance of export controls, develop a deeper understanding of how illicit procurement occurs, and give Russian enterprises the tools they need to implement export controls in Russia more effectively. Many of the comments I will make today about Russia's export control system reflect participation in this project.

Russian Progress and Problems

Russia has made great progress in creating nuclear and nuclear-related export control laws and regulations following the demise of the Soviet Union. The legal structure has been developed with extensive assistance from the U.S. government and the non-governmental community. The highest levels of the Russian government are committed to the creation of an effective export control system aimed at stopping enterprises and individuals from conducting illegal or otherwise damaging exports. Many positive steps have been taken toward full implementation of this system.

However, creating an adequate Russian export control system remains complicated and urgent. Significant problems must be overcome if Russia is to implement an effective system. Problems that ISIS staff has encountered include:

- An overemphasis on obtaining sales and exports without adequately weighing the security problems that could be caused by a sensitive export. Too many Russians view sales as essential to the survival of enterprises and export controls as hindering those sales. One official put the situation starkly for smaller companies—the choice for the company is either "money or life;"
- An environment or culture at enterprises that does not adequately emphasize the harm of illicit exports;
- A shortage of effective internal compliance systems at Russian enterprises. Larger enterprises, particularly those with nuclear experts, are creating internal compliance systems, but they remain in need of assistance to make them effective. Many smaller enterprises, particularly those outside Moscow, often lack rudimentary knowledge of the laws and regulations and cannot afford to create an internal compliance system;
- Inadequate education and training opportunities for employees at enterprises who must ensure that exports are legal and for students who will become the next generation of export control officials;
- A dearth of information at Russian enterprises that would enable sellers to check on end users in foreign countries. One Russian export control official said that more than 90 percent of all Russian enterprises do not have books or other resources to research the companies buying their items. Thus, a seller has a difficult time checking whether the information provided by the customer is true or reliable. Another senior Russian official stated that this problem is already hard to deal with in the United States and Europe, and it is much harder to cope with in Russia.

- The need for improved controls over the sale of Minatom nuclear assets. This problem can be traced to the general problem in Russia of tracking and controlling the resale of items to buyers within Russia that may subsequently export them; and
- Inadequate enforcement of violators of export control laws. For example, many potential violators work at enterprises owned by the Russian government. As a result, Russia may not prosecute them adequately to discourage similar behavior by others. A "slap on the hand" may be the only outcome, particularly if the case is limited to an administrative inquiry at the government-owned enterprise.

My personal observation is that many officials in Russia are overly confident that Russia will not export illicit nuclear items, although many of them recognize the above problems. If they concede that such exports could happen, some of these officials add that the proliferant states receiving the item could not build nuclear weapons regardless. This failure to recognize the possibility or consequences of illicit sales is too common. Because all countries seeking nuclear weapons in the last thirty years have depended extensively on foreign assistance, these statements border on the irresponsible and illustrate the lack of a culture supporting export controls in Russia.

Given all these problems, significant illicit or questionable sales are bound to occur unless more is done to strengthen Russia's export control system. Under current conditions, the Russian government may be inadvertently encouraging the export of sensitive items to clandestine nuclear weapons programs.

Russia is not unique in dealing with these problems. Many Western countries have had to learn the hard way that commercial interests cannot be placed above strategic interests.

Germany in the 1980s, for example, had a weak export control system. Its companies provided a large number of sensitive items to Iraq's nuclear weapons program. Although many of these companies knew that the exports were illegal, the government shared in part of the blame for these companies actions because of its emphasis on encouraging exports and not devoting adequate resources to its export licensing system. Similar cases can also be found in the United States and Britain.

A key lesson of the German cases is that violations do occur. Proliferant states and terrorist groups seek to identify and exploit weaknesses in countries' export control systems. In response, countries must vigorously prosecute violators to deter future violations. To minimize exploitation of the system, loopholes in laws and regulations need to be fixed; internal compliance systems must be improved; and vigilance and political will must be sustained.

U.S. Assistance Remains in Our Interest

U.S. assistance has been critical to improving export controls in Russia. This assistance reduces the risk that states such as Iran and Iraq will obtain nuclear weapons.

Russian officials responsible for creating and implementing export control laws view U.S. assistance positively and know it is important to the success of their efforts. ISIS's experience working in Russia is that U.S. assistance has already played a vital role in improving Russian export controls and remains critical as efforts shift to the implementation of Russia's export control laws and regulations.

Toward that end, and reflecting ISIS's experience, I would like to make the following recommendations:

- U.S. and other Western governments need to continue stressing that stopping the spread of nuclear weapons, other weapons of mass destruction, and ballistic missiles is a key goal of the United States and the international community, and that effective national export control systems are a necessary part of working toward that goal;
- U.S and other Western governments need to make a long term commitment to assist Russia create and implement an adequate export control system; and
- The United States needs to commit additional funding and expertise to help Russia implement its export control system. Immediate priorities include creating effective internal compliance systems and developing adequate practices to ensure that end users are legitimate and verified. An on-going priority is ensuring adequate education and training of Russian government and enterprise personnel in export control laws, regulations, and methods.

Iran

One cannot work in Russia without confronting arguments about Russia's nuclear assistance to Iran's nuclear weapons program. There is no more controversial issue between the United States and Russia. This problem is even more difficult, because according to a former Russian official, over 95 percent of Russian exports are by government-owned enterprises or agencies.

For the sake of brevity, the issue can be reduced to a series of questions. Has the Russian government consciously approved exports to Iran's nuclear weapons program? Are Russian individuals assisting Iran's nuclear weapons program with their government's blessing? Does the Russian government turn a "blind eye" to such exports and assistance? Alternatively, have any such exports and assistance resulted from general chaos in the Russian export control system, and thus they have been inadvertent?

I do not know the answers to these questions, but, at a minimum, weaknesses in the Russian export control system have made Iranian procurement for its nuclear weapons program significant easier. In addition, the lack of clear answers to these questions enormously complicates cooperative efforts to strengthen Russian export controls.

Russian officials typically deny that any of its exports go to a secret Iranian nuclear weapons program. They often express the view that the United States has singled Russia out unfairly and has a double standard in dealing with proliferant states such as Iran. One official stated recently that the United States pressured a Russian enterprise not to

provide a general-use furnace to Iran, but he had seen a similar furnace in Iran provided by Germany, an export he believes had U.S. support. We are all aware of Russia's anger at the United States over the Bushehr reactor.

Looking forward, the United States will need to continue pressing its concerns that Russian assistance, whether deliberate or inadvertent, is aiding Iran's nuclear weapons program. As important, the United States needs to maintain and increase its financial aid as Russia creates a robust, effective export control system. This system must exist in an export culture that supports the idea that exports to secret nuclear weapons programs are bad for business and dangerous for the world.

Conclusion

U.S. non-proliferation interests motivate cooperation with Russian officials and experts to build a strong Russian nuclear and nuclear-related export control system. Developing adequate controls in Russia is challenging and will require extensive U.S. assistance. The major benefit is that states such as Iran and Iraq will not find Russia the most attractive "nuclear supermarket" as they shop the world for items needed in their quest to build nuclear weapons.

An effective Russian control system can stop many dangerous exports and increase U.S. and international security. Although export controls alone cannot stop nuclear proliferation, they can make proliferation more difficult, time consuming, and costly, both politically and financially. Delaying a country from proliferating can buy time for more fundamental political changes to occur that will stop or dissuade a country from obtaining nuclear weapons.

Testimony of Gary Milhollin

Professor Emeritus, University of Wisconsin Law School
and
Director, Wisconsin Project on Nuclear Arms Control

I am pleased to appear before this distinguished Subcommittee to discuss the subject of export control and arms proliferation. The Subcommittee has asked specifically that I comment on China and Russia, and how these two countries' exports have contributed to the spread of weapons of mass destruction.

First, I would like to present an overall view of what these countries have been exporting. Then, I would like to make some recommendations concerning the group of Chinese firms that were sanctioned last month by the State Department.

If we look around the world today, and ask ourselves what are the "pacing items" in the spread of mass destruction weapons, the answer is clear: they are Chinese and Russian exports. Sales by these two countries are now fueling the spread of chemical weapons, nuclear weapons and long-range missiles in a number of countries, some of which support international terrorism.

In his testimony this past March, CIA director George Tenet made it clear that this activity is still going on. He told the Senate Armed Services Committee that "Russia appears to be the first choice of proliferant states seeking the most advanced technology and training." He said that "Russian entities continue to provide other countries with technology and expertise applicable to CW, BW, nuclear, and ballistic and cruise missile projects." He further accused Russia of supplying "significant assistance on nearly all aspects of Tehran's nuclear ... [and] ... long-range ballistic missile programs."

He also testified that Chinese firms "remain key suppliers of missile-related technologies to Pakistan, Iran, and several other countries." He said that these exports were continuing "in spite of Beijing's November 2000 ... pledge not to assist in any way countries seeking to develop nuclear-capable ballistic missiles." In addition, he noted that China is selling CW-related production equipment and technology to Iran.

All this has been going on for a long time. If we just look back over the past several years, we see that Russia has done the following:

* Helped India develop a nuclear submarine and its missiles;

* Helped India develop a cruise missile and improve the accuracy of its surface-to-surface missiles;

* Shipped, in violation of Russia's obligation to the Nuclear Suppliers Group, nuclear fuel for India's reactors at Tarapur and begun work on two new Indian nuclear reactors;
* Supplied Iran a large nuclear reactor, which will give Iran its first access to fissile material, and sold Iran sensitive heavy water production technology,

nuclear-grade graphite production technology, and research reactor design technology, all of which can be used to make nuclear weapons;

* Helped Iran develop long-range ballistic missiles by providing materials, components, designs, training, experts and testing equipment;

* Sold missile components and/or technology to Brazil, Iraq, Libya and Pakistan.

China's conduct has been roughly the same. China has done the following:

* Essentially created Pakistan's nuclear weapon program by supplying a nuclear weapon design, nuclear materials and nuclear technology, including the design of a clandestine reactor;

* Essentially created Pakistan's ballistic missile program by providing entire missile systems, missile components and missile factories;

* Supplied Iran's chemical weapon program with poison gas ingredients as well as poison gas production equipment;

* Sold Iran missile components and ingredients for missile fuel as well as complete anti-ship cruise missiles;

* Supplied, according to the CIA, dual-use missile-related items to Libya and North Korea.

The cumulative effect of these export transactions can work great changes in world security. Millions of people in South Asia now face the risk of sudden annihilation because India and Pakistan – presently on the brink of war – possess nuclear weapons. India's nuclear reactors got a crucial component – heavy water – from both China and Russia at a critical point in India's nuclear development. And if one subtracts China's aid to Pakistan's nuclear program, there probably wouldn't be a program.

India and Pakistan also have missiles that can deliver nuclear weapons. The missiles too were built with help from China and Russia. It is simply a fact that Chinese and Russian exports have made the dispute over Kashmir far more dangerous.

Russia is a member of the Nuclear Suppliers Group, the Missile Technology Control Regime and has adhered to the Chemical Weapons Convention. Russia is also a member of the Wassenaar Arrangement. China is not a member of the Nuclear Suppliers Group, the MTCR, or Wassenaar, but it has adhered to the Nuclear Nonproliferation Treaty and the Chemical Weapons Convention. In 1996, China pledged not to assist unsafeguarded nuclear facilities. And according to the CIA, China has pledged not to transfer missile items covered by Category One of the Missile Technology Control Regime and not to help any country develop a ballistic

missile that could deliver nuclear warheads.

Unfortunately, neither of these countries has a good record of keeping its word. The United States has applied sanctions to Chinese and Russian firms many times. The problem is that the bad behavior is still going on.

On May 16, the State Department announced – once again – that it had decided to punish a number of Chinese companies for fueling weapons proliferation. Seven companies and one Chinese individual were listed for selling Iran items useful for making weapons of mass destruction. According to the press, Iran got components for cruise missiles, as well as glass-lined equipment for making chemical agents. The most surprising thing about the list was that it contained a number of repeat offenders.

The State Department had already punished three of the companies and the individual for similar offenses before. And a fourth company on the list was indicted for export offenses in 1999. To anyone familiar with these companies, it is obvious that they have become scofflaws. They don't care a straw about our policies on nonproliferation.

The question is: what are we going to do about it? Under the sanctions law that has just been applied, the companies are only barred from doing what they don't normally do anyway. They are forbidden to sell goods to the federal government, or receive aid from it, or buy arms from the United States, or buy items that are controlled for export under the Export Administration Act. These restraints, however, are not much punishment. The companies don't sell things to our government, or get aid from it, or buy American arms. The sanctions may deny them an occasional item controlled for export, but even that doesn't mean much anymore. The companies are still free to buy as many high-performance American computers or machine tools as they want, so long as the computers and machine tools perform at a level just under the level controlled for export.

It is important to understand what this means. The control levels for most goods have been moved up to the point where they are quite high – so high that little is left under restraint. Today, the value of goods licensed for export is only one-tenth of what it was during the cold war. The reason is simple: Controls have been slashed by ninety percent. The control level for supercomputers, for example, has now been raised to the point (190 billion operations per second) where extremely powerful machines are available from the United States without a license. These machines can perform tasks that are highly useful for nuclear weapon and missile design. Even a Chinese company that has been sanctioned, or is under indictment, can buy high-performance American computers to boost its production, and then turn around and sell that same production to terrorist-supporting nations, despite the indictment and despite the sanctions.

Thus, the very Chinese companies that are now selling missile and chemical weapon technology to Iran are perfectly free to develop that technology with high-tech American imports.

Two of these companies are instructive examples. First, there is the China National Aero-Technology Import and Export Corporation, known as CATIC. In addition to being sanctioned last month for helping Iran, this state-owned Chinese company was indicted in 1999 and fined last year for diverting American machine tools to a Chinese cruise missile and military aircraft plant. The machines had produced parts for the B-1 strategic bomber and the MX nuclear missile. CATIC was charged with lying to get the machines out of the United States in 1995 by promising to restrict them to civilian use.

Yet, by January 2000, the Commerce Department was trying to get other federal agencies to agree to allow one of CATIC's sister companies, the Xian Aero Engine Company, to buy the same kind of American machine tool that CATIC was indicted for diverting. The sister company makes engines for China's military aircraft, including the nuclear-capable H-6 strategic bomber. Despite the fact that China refuses to allow the United States to verify where controlled American products actually wind up in China, the Commerce Department still lobbied for the export. The point here is that CATIC's illegal acts did not really burden CATIC's organization, which is known as Aviation Industries of China. The organization was still eligible to import sensitive American machine tools, simply by ordering through a different subsidiary.

A second example is the China Precision Machinery Import and Export Corporation. In addition to being sanctioned last month for helping Iran, this state-owned company was sanctioned in 1993 for supplying nuclear-capable missiles to Pakistan. It also sold Iran anti-ship cruise missiles in the mid-1990's, and at least one press report has linked it to Libya's missile efforts. It, too, is part of a large organization – known as the China Aerospace Corporation. If that corporation wants to buy sensitive American equipment, it can still place an order through another subsidiary, just as CATIC's organization did.

Despite the notorious conduct of both of these companies, neither has been put on the Commerce Department's watch list of dangerous companies in China. This "entity" list (Part 744, Supplement No. 4, of the Export Administration Regulations) requires that an exporter apply for a license before shipping to firms that might constitute a proliferation risk. In fact, not a single one of the repeat offenders that the State Department just sanctioned is on this list. It is logical to ask why not. The list contains only nineteen Chinese companies, which is a ridiculously low number in light of the scores of companies that deserve to be on it. Last November, in testimony before this Subcommittee, I submitted a list of fifty Chinese companies that are well-known to be dangerous, and that should be included on the list. By leaving the companies that were just sanctioned off the list, the Commerce Department is preserving their access to American exports, despite their bad behavior.

Congress could take some simple steps to remedy these shortcomings. First, instead of banning only licensed exports to these companies, Congress should ban all American trade with them. A company should not be able to buy high-performance American computers on Monday and send missile parts to Iran on Tuesday. The price of proliferation ought to be a denial of all U.S. trade, both to these companies and from them.

Second, their organizations should be affected. An organization should not be able to proliferate through one subsidiary and buy American goods through another. Our sanctions laws simply do not present a deterrent to China's large, state-owned organizations. Through their recidivist subsidiaries, they are thumbing their noses at us.

The remedy is to bar American exports up the corporate chain as well as down. The corporate parent, as well as the corporate subsidiary, should be included in a total trade ban. By affecting a wider range of companies, we might cause China's military-industrial organizations to take our views on arms proliferation more seriously.

Third, we could extend the duration of the sanctions. The sanctions just imposed will last but two years. Instead of simply ignoring these companies after that time, we should place them on the Commerce Department's warning list. If the companies have done something bad enough to deserve sanctions, they are dangerous enough to be on the list. American exporters should be required to get government approval (an export license) before dealing with them. A minimum period of three years on the list would be reasonable.

Fourth, we could bar the employees of these companies from entering the United States. Before buying the American machine tools that it illegally diverted in the 1990's, CATIC sent a team of specialists to inspect the machine tools at a factory in Columbus, Ohio. This visit was an integral part of CATIC's deception campaign, which included fraud in obtaining the export license. It would have been much better for the United States if these officials had been stopped at the border.

Fifth, we could engage our allies and trading partners. When we cut off trade with a company because of an export violation, we should ask our allies to do the same. A request for assistance should go out immediately, so that our exporters are not undercut. Having our allies join us would increase the pressure on the offending exporter, and push it into the position of an international pariah – which it deserves to be.

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Questions for the Record Submitted to
Assistant Secretary John S. Wolf
by Chairman Daniel K. Akaka
Sc. on International Security, Proliferation and Federal Services
Committee on Governmental Affairs
June 6, 2002

Question 1:

On May 9, 2002, Richard Boucher announced that the U.S. was sanctioning 14 different entities in several countries for violating the Iran Nonproliferation Act of 2000. However, under the State Department's Federal Register entry on the same date, only 12 sanctioned entities were listed. Can you explain this discrepancy? Were the other two that were not listed Russian entities?

Answer:

This current (May 2002) Iran Nonproliferation Act of 2000 (INPA) report is the fourth INPA report submitted to Congress to date. In the current report, the U.S. imposed penalties on 12 different entities. The U.S. previously sanctioned other entities in previous INPA reports. The total number of different entities sanctioned in all four report submissions is 14. None of these sanctioned entities is Russian.

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Questions for the Record Submitted to
Assistant Secretary John S. Wolf
by Chairman Daniel K. Akaka
Sc. on International Security, Proliferation and Federal Services
Committee on Governmental Affairs
June 6, 2002

Question 2:

Of the entities sanctioned by the U.S. for violating the Iran Nonproliferation Act, two were Armenian and two were Moldovan. Does the U.S. have export control assistance programs with the former Soviet states other than Russia? If not, do you believe it may be necessary to expand current programs to other former Soviet States?

Answer:

The U.S. has extensive export control assistance programs with the former Soviet states.

The Nonproliferation Bureau (NP) manages the interagency Export Control Assistance Program (ECAP), which is actively assisting all former Soviet states, with the exception of Belarus and Georgia (the larger Border Security and Law Enforcement program for Georgia is not managed by NP since it is not directly related to nonproliferation). The budget for ECAP in these former Soviet states (excluding Russia) in FY01, including FY01 Supplemental funds, totaled $44.5 million.

ECAP draws on the expertise from our in-country program advisors and from other U.S. agencies such as Commerce, Energy, Defense, Customs, and Coast Guard to implement the program. ECAP addresses all aspects of the recipient countries' export control systems, including legal framework, licensing process, border control, and enforcement.

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Questions for the Record Submitted to
Assistant Secretary John S. Wolf
by Chairman Daniel K. Akaka
Sc. on International Security, Proliferation and Federal Services
Committee on Governmental Affairs
June 6, 2002

Question 3:

Of the 12 entities listed to be sanctioned on May 9, 2002, eight were Chinese entities. The Federal Register only mentioned that these entities were sanctioned because of the "transfer to Iran of equipment and technology controlled under multilateral export control lists." The Chinese said that these sanctions were unreasonable. Which multilateral export lists were violated by the Chinese companies?

Answer:

We have not declassified this information. It is reported in the classified INPA report submitted to Congress on May 9, 2002.

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Questions for the Record Submitted to
Assistant Secretary John S. Wolf
by Chairman Daniel K. Akaka
Sc. on International Security, Proliferation and Federal Services
Committee on Governmental Affairs
June 6, 2002

Question 4:

The worldwide total of lost, stolen, and abandoned radioactive sources could be staggering. As many as 10,000 to 20,000 organizations in the former Soviet Union may be using different types of these radiological devises. The International Atomic Energy Agency (IAEA) recently released a proposal on steps to control radioactive sources and prevent nuclear terrorism. How is the Department of State working with the IAEA to prevent nuclear terrorism?

Answer:

The Department is working closely with the International Atomic Energy Agency (IAEA) to reduce the threat of nuclear terrorism. After September 11th, the IAEA examined its existing programs and proposed expanding certain activities and developing new ones to respond to the enhanced threat of nuclear terrorism. In March, the Agency's Board of Governors approved the resulting three-year, $11 million a year effort to improve the security of nuclear material and facilities and radioactive materials, as well as detection of and response to malicious acts involving them. The United States has provided $5.7 million to the IAEA in support of this program. Of this amount, $1.0 million is devoted to new activities focused on the safety and security of radioactive sources. We are currently funding a U.S. expert to

provide full-time support at IAEA headquarters to address the problem of radioactive sources.

The Department is involved with other initiatives as well. We are working to advance the recently announced Tripartite Initiative between the United States, Russia and the IAEA to tighten security on radioactive materials in the former Soviet Union outside of Russia that could be used in a radiological dispersal device. Under this program, the Department is facilitating the use of Department of Energy expertise to work with the IAEA in identifying and securing these radioactive materials. In addition, the Department has also recently approved a Nonproliferation and Disarmament Fund project that will make radiation safety experts available to cooperate with the IAEA to help secure radioactive material on a global scale.

To improve the physical security of nuclear material, the Department has been working to reinforce and strengthen the Convention on Physical Protection of Nuclear Material (CPPNM). The Convention currently establishes specific obligations on States Parties for the physical protection of nuclear material used for peaceful purposes in international transport and storage. In addition, the CPPNM obligates States Parties to cooperate in the recovery and protection of stolen nuclear material and establish as criminal offenses the misuse and

threats of misuse of nuclear materials to harm the public and to prosecute or extradite for prosecution those accused of committing such offenses. We seek to extend the Convention to cover the physical protection of nuclear material used for peaceful purposes in domestic use, storage and transport and for physical protection to prevent sabotage of nuclear material and nuclear facilities used for peaceful purposes.

Question 5:

In response to my question on U.S.-China cooperation on export controls, Mr. Borman said that diplomatic and policy goals would have to be established and agreed upon before the Department of Commerce could begin discussions on technical assistance. Do you have a timeline or set of goals in your discussions with the Chinese offices on export control policy issues?

A: We have raised export control policy issues with China on numerous occasions. For example, we continue to urge China to fully implement, as soon as possible, its November 2000 commitment to promulgate comprehensive missile-related export controls. It has not yet done so. We also continue to urge China to ensure full and effective enforcement of all of its export controls.

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Questions for the Record Submitted to
Assistant Secretary John S. Wolf
by Senator Thad Cochran
Sc. on International Security, Proliferation and Federal Services
Committee on Governmental Affairs
June 6, 2002

Question 6:

The United States has sanctioned one Chinese individual, Q.C. Chen, three times for chemical weapons transfers to Iran.

- **Have the Chinese taken any action to punish and halt transfers from this individual?**

Answer:

Q.C. Chen has been sanctioned under two of the four Iran Nonproliferation Act of 2002 (INPA) reports submitted to date. However, we are unaware whether the Chinese have taken action against him.

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Questions for the Record Submitted to
Assistant Secretary John S. Wolf
by Senator Thad Cochran
Sc. on International Security, Proliferation and Federal Services
Committee on Governmental Affairs
June 6, 2002

Question 7:

In your testimony you stated, "we have offered Moscow lucrative incentives to end sensitive cooperation with Iran."

- **Could you tell us what these incentives were?**
- **What was the reaction of the Russian Government to your offer?**
- **Does the Russian government unequivocally share our views that the development of nuclear weapons by Iran is undesirable?**
- **If they do, then how do you account for the difference between that view and their actions?**

Answer:

We have been engaged in an intensive, high-level effort to persuade Moscow to end cooperation in the areas of missiles and sensitive nuclear facilities and refrain from advanced conventional weapons transfers. At the Kananaskis G-8 summit, President Bush pressed President Putin to end such cooperation.

To advance our diplomatic efforts to end sensitive Russian cooperation with Iran, we have offered the Russians incentives, such as U.S. consent for U.S.-origin spent fuel to be stored in

Russia -- a carrot potentially worth $20 billion over the long term to the Russians.

Although Moscow shares our interest in preventing Iran from gaining nuclear weapons or long-range missiles, it also has great interest in the economic, political, and strategic benefits of cooperation with Iran. The Russian Government has claimed that there is no ongoing ballistic missile or sensitive nuclear cooperation with Iran.

We will continue to resolutely press the Russians at senior levels to end sensitive Russian assistance to Iran's weapons programs and will follow-up on some elements of progress that the President made on this issue at the Summit.

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Questions for the Record Submitted to
Assistant Secretary John S. Wolf
by Senator Thad Cochran
Sc. on International Security, Proliferation and Federal Services
Committee on Governmental Affairs
June 6, 2002

Question 8:

I am troubled by the recent need to sanction entities in Moldova and Armenia because it indicates that additional sources of weapons of mass destruction technology are becoming available from states of the Former Soviet Union other than Russia.

- **What actions have the Moldovan and Armenian Governments taken in response to our sanctions?**

A: On many occasions, the U.S. has discussed with the Governments of Armenia and Moldova our proliferation concerns regarding the activities of the Armenia and Moldovan entities recently sanctioned under the INPA. Although this dialogue did not prevent the proliferation activities which triggered the recent INPA sanctions, it did result in Moldova shutting down the problematic corporate entity, passing new export control legislation and adopting implementing regulations to tighten the government control over the transfer of sensitive technologies. Our discussions concerning the sanctioned Armenian entities have underscored the need for Armenia to continue efforts to improve its export control enforcement and legislation.

QUESTIONS FOR THE RECORD SUBMITTED TO MR. BORMAN WITH
ANSWERS TO ADDITIONAL QUESTIONS
FROM CHAIRMAN DANIEL K. AKAKA
SENATE GOVERNMENTAL AFFAIRS SUBCOMMITTEE
ON INTERNATIONAL SECURITY, PROLIFERATION AND FEDERAL SERVICES

JUNE 6, 2002 HEARING ON RUSSIA AND CHINA:
NON-PROLIFERATION CONCERNS AND EXPORT CONTROLS

Question1: The Commerce Department maintains a watch list of Chinese companies called the "entity" list. This list, per Export Administration Regulations, requires an exporter to apply for a license before shipping to firms that might constitute a proliferation risk. What process do you use to put companies on this watch list? Are any of the companies recently sanctioned by the State Department on the list, and if not, why not?

Answer: The Bureau of Industry and Security (BIS) maintains several lists of foreign entities subject to increased vigilance to help ensure U.S.-origin items are not diverted for unauthorized uses. Generally, the Entity List (Supplement No. 4 to Part 744 of the Export Administration Regulations (EAR)) contains the names of foreign entities - *not just Chinese* - that are involved in indigenous weapons of mass destruction programs. For example, the Entity List names certain research institutes in China, India and Pakistan that are believed to be involved in indigenous WMD programs in those countries. Generally, all items subject to the EAR, whether on the Commerce Control List (CCL) or not, require an individual license to be exported to the listed entities. Foreign entities are placed on the Entity List to help ensure that U.S.-origin items are not diverted to such end-uses.

Entities are placed on the Entity List through an interagency process involving the Departments of Commerce, State, Defense, and Energy and the intelligence community. When an agency believes the action of a foreign entity warrants placement on the Entity List, it makes that recommendation to the other agencies. The agencies review the recommendation and decide whether the facts warrant listing the entity on the list, and if so, whether there are important intelligence, law enforcement or other considerations that weigh against listing the entity.

None of the foreign persons recently sanctioned by the Department of State are currently on the Entity List. These persons were sanctioned pursuant to specific statutes requiring the imposition of sanctions because of contributions by these persons to the weapons programs of third countries, not because of their role in any indigenous weapons programs. These statutes typically require the denial of license applications for the export or reexport of items that require a license under the EAR. For example, in the case of sanctions under the Iran-Iraq Arms Nonproliferation Act of 1992, all license applications for exports or reexports to or from sanctioned persons will be denied. In the case of sanctions under the Iran Nonproliferation Act of 2000, all license applications for the transfer to sanctioned persons of controlled items will be denied and any existing licenses will be suspended.

None of the agencies involved in reviewing the most recent sanction impositions also sought to have these persons added to the Entity List. However, BIS is drafting a rule that will set forth the

policy of denial applicable to the export or reexport of specified items to persons sanctioned by the Department of State pursuant to statute. This rule will also make the involvement in an export or reexport transaction by persons sanctioned for proliferation-related activities a "red flag" (Supplement No. 3 to Part 732 of the EAR). A "red flag" requires heightened scrutiny by the exporter before proceeding with a transaction in which a sanctioned person is a party.

Question 2: On May 9, 2002, the Department of State announced the U.S. was sanctioning 14 different entities in several countries for violating the Iran Nonproliferation Act of 2000. This is the third time since September that sanctions have been imposed on Chinese companies for arms-related sales. In fact, one of the individuals listed has been sanctioned several times in the past. What impact will these sanctions have on these companies? Does the U.S. government have contracts with them?

Answer: For items subject to the EAR, the sanctions mean that any item requiring a Department of Commerce license to be exported or reexported to a sanctioned person will be denied. Items that require a Department of Commerce license are those that have the most significant potential to harm U.S. national security or foreign policy interests.

The State Department would be the appropriate department to describe any other impact, including whether these sanctioned persons have any contracts with the United States government.

Question 3: Of the entities sanctioned by the U.S. for violating the Iran Nonproliferation Act, two were Armenian and two were Moldovian. Does the U.S. have export control assistance programs with former Soviet states other than Russia? If not, do you believe it may be necessary to expand current programs to other former Soviet states?

Answer

The United States does have export control assistance programs with most of the former Soviet states, including Armenia and Moldova. The Department of Commerce has conducted nine technical exchanges on various aspects of export controls with the government of Moldova since January 1998 and has plans for additional exchanges. As a result of the program with Moldova, that country enacted an export control law in July 2000 and implementing regulations, including adoption of the European Union control list, in April 2002. With Armenia, the Department of Commerce has conducted 5 technical exchanges since June 1997. As a result of the program, the Armenian government is developing a second draft of a new export control law, which now awaits approval by the Armenian parliament.

The United States also has export control assistance programs with other former Soviet Republics: the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Uzbekistan, the Republic of Tajikistan, the Republic of Azerbaijan, Ukraine, and Georgia. With U.S. assistance, the Republic of Kazakhstan, the Republic of Tajikistan, Belarus, Lithuania, and Georgia have

passed export control laws. Other Republics are at various stages of passing an export control law. Furthermore, because a number of these countries are more points of transit for strategic goods rather than manufacturers, the United States is working with these republics on a regional transit agreement which would oblige the republics to share information on strategic goods transiting through the region.

Question 4: Do you have some way of quantifying your accomplishments in assistance to Russian export controls? Have you established metrics in order to determine the effectiveness of different programs?

Answer: The Department of Commerce has a model country plan for its technical exchanges on export controls with Russia and all of the other countries of the former Soviet Union. The model plan identifies a total of 56 objectives in five functional areas (i.e., Program Administration and System Automation, Legal Foundation and Regulatory Development, Licensing Procedures and Practices, Export Enforcement Mechanisms, and Industry - Government Relations). The Department of Commerce has targeted 37 of the 56 objectives in its on-going technical exchange program in Russia so far and has met 20 of these objectives fully with demonstrable progress on several others. Please see the attached documents for more detail.

QUESTIONS FOR THE RECORD SUBMITTED TO MR. BORMAN WITH

ANSWER TO ADDITIONAL QUESTION
FROM SENATOR THAD COCHRAN
SENATE GOVERNMENTAL AFFAIRS SUBCOMMITTEE
ON INTERNATIONAL SECURITY, PROLIFERATION AND FEDERAL SERVICES

JUNE 6, 2002 HEARING ON RUSSIA AND CHINA:
NON-PROLIFERATION CONCERNS AND EXPORT CONTROLS

Question 1: When the State Department sanctions an entity, why don't these companies and individuals also get placed on the Commerce Department's Entity List?

Answer: Entities are placed on the Entity List (Supplement No. 4 to Part 744 of the Export Administration Regulations (EAR)) through an interagency process involving the Departments of Commerce, State, Defense, and Energy and the intelligence community. Generally, all items subject to the EAR, whether on the Commerce Control List (CCL) or not, require an individual license for export to the listed entities. The Entity List is designed to list foreign entities that are involved in indigenous weapons of mass destruction programs. For example, the Entity List names certain research institutes in China, India and Pakistan that are believed to be involved in indigenous WMD programs in those countries. Placement on the Entity List is designed to help ensure that U.S.-origin items are not diverted to such end-uses.

Persons sanctioned by the Department of State are not automatically added to the entity list because they may have been sanctioned for a variety of reasons. The most recent State Department sanctions (May 9, 2002 and July 9, 2002) were imposed on a number of Chinese entities - principally trading companies and brokers - because of contributions by these persons to the weapons programs of third countries, not because of their role in any indigenous weapons programs. These entities do not meet the criteria normally employed for including an entity on the Entity List. None of the agencies involved in reviewing the most recent sanction impositions sought to have these persons added to the Entity List.

That stated, the Bureau of Industry and Security is drafting a rule that will set forth the policy of denial applicable to the export or reexport of specified items to persons sanctioned by the Department of State pursuant to statute. For example, in the case of sanctions under the Iran-Iraq Arms Nonproliferation Act of 1992 (July 9, 2002), all license applications for exports or reexports to or from sanctioned persons will be denied. In the case of sanctions under the Iran Nonproliferation Act of 2000 (May 9, 2002), all license applications for the transfer to sanctioned persons of controlled items will be denied and any existing licenses will be suspended. This rule also will make the involvement in an export or reexport transaction by persons sanctioned for proliferation-related activities a "red flag" (Supplement No. 3 to Part 732 of the EAR). A "red flag" requires heightened scrutiny by the exporter before proceeding with a transaction in which a sanctioned person is a party.

DEPARTMENT OF COMMERCE/BXA
EXPORT CONTROL COOPERATION

RUSSIA

Program Overview

Export control cooperation with Russia began in April of 1994, and has included to date 75 technical exchanges (excluding symposia), over eight years. Divided into functional areas, the exchanges occurred in the following categories:

Program Administration and System Automation	4
Legal Foundation and Regulatory Development	3
Licensing Procedures and Practices	4
Enforcement Mechanisms	5
Industry-Government Relations	59

Overall, Russia is about 40% through the Commerce/BXA Nonproliferation and International Export Control Cooperation Program (See Program Performance Tracking Chart for Russia and the associated Model Country Program Plan).

Russia's most significant progress has been made in the legal and regulatory area where it is estimated that five of the five or 100% of the desired outcomes have been achieved. Particularly noteworthy is the enactment of a comprehensive export control law in July 1999.

Russia's greatest requirements are in the enforcement and industry-government relations areas. Informing enterprises of their export control obligations and strengthening export control compliance at the enterprise level is high priority in Russia.

Commerce/BXA Program Performance Tracking Chart: Russia

Program Administration and System Automation (PA)

		PA 1.3.1 3/95	PA 1.3.1 3/95 PA 1.3.2 12/95 PA 1.3.2 6/96				PA 1.6.1 1/99	PA 1.6.1 1/99				
					PA6	PA7	PA8	PA9	PA10	PA11	PA12	PA13
3/70 PXS	PXS	3/95	6/96	6/96								

* PA5 was achieved in the context of PA 1.3.2

Legal and Regulatory Development (LR)

LR 2.1.1 7/95	LR 2.1.1 7/95 LR 2.1.2 4/96	LR 2.1.2 4/96 LR 2.2.1 3/99	LR 2.2.1 3/99	LR 2.2.1 3/99	
					LR6
7/95	7/95	1/98	3/99	7/99	

Licensing Procedures and Practices (LP)

	LP 2.1.1 9/97	LP 2.1.1 9/97	LP 2.2.1 11/98	LP 2.2.1 11/98	LP 2.2.1 11/98	LP 3.3.1 3/99 LP 3.3.2 10/99	LP 3.3.1 3/99 LP 3.3.2 10/99	LP 3.3.1 3/99 LP 3.3.2 10/99	LP 3.3.1 3/99 LP 3.3.2 10/99		
				LP5	LP6	LP7	LP8	LP9	LP10	LP11	LP12
PXS	PXS	9/97	PXS								

Preventive Enforcement Mechanisms (EM)

LR 2.1.1 7/95 EM 2.1.1 3/96 EM 2.1.2 9/96	LR 2.1.1 7/95 EM 2.1.1 3/96 EM 2.1.2 9/96	EM 2.1.1 3/96 EM 2.1.2 9/96	EM 3.1.1 4/98	EM 3.1.1 4/98 EM 3.1.2 9/99 EM 3.1.3 ETRI	EM 3.1.1 4/98 EM 3.1.2 9/99 EM 3.1.3 ETRI	EM 3.1.3 ETRI	EM 3.1.3 ETRI		
	EM2	EM3	EM4		EM6	EM7	EM8	EM9	EM10
7/95				6/98					

Industry-Government Relations (IG)

PA 1.3.1 3/95 IG 2.1.1 10/95	IG 2.1.1 10/95	IG 2.1.2 12/96 IG 2.1.3 6/98 IG 2.1.4 4/99 IG 2.1.3 1/00 (Pilot)*	IG 2.1.2 12/96 IG 3.3.1 5/97 (Tula) IG 2.1.3 6/98 IG 3.3.1 1/98 IG 3.3.1 6/98 (Yekat.) IG 3.3.1 9/98 (Nizh. N.) IG 3.3.1 11/98 (Tomsk) IG 2.1.4 4/99 IG 2.1.3 1/00 (Pilot)*	IG 2.1.2 12/96 IG 2.1.3 6/98 IG 2.1.4 4/99 IG 2.1.3 1/00 (Pilot)*	IG 2.1.2 12/96 IG 3.2.2, 3.2.3 9/98 IG 3.2.2, 3.2.3 12/98 IG 3.2.2, 3.2.3 1/99
	IG2	IG3	IG4	IG5	
12/96					*12/96

* IG6 was achieved in the context of IG 2.1.2

Red Addressed by technical exchange(s) / achieved
Addressed by technical exchange(s) / not achieved
Blue Funded / Note:
PXS Not directly addressed by technical exchange(s) / achieved and / or previously existing

Industry-Government Relations (IG)

ICP-related Workshops Only

IG 3.2.2, 3.2.3 9/98 Moscow IG 3.2.2, 3.2.3 12/98 Moscow IG 3.2.2, 3.2.3 1/99 Moscow	IG 3.2.2, 3.2.3 9/98 Moscow IG 3.2.2, 3.2.3 12/98 Moscow IG 3.2.2, 3.2.3 1/99 Moscow IG 3.2.4 9/00 IG 3.2.3 10/01 IG 3.2.3 11/01 IG 3.2.3 12/01 IG 3.2.3 01/02	IG 3.2.5 4/99 Samara IG 3.2.5 5/99 Voronezh IG 3.2.5 5/99 Yaroslavl IG 3.2.5 6/99 Oryol IG 3.2.5 6/99 Kazan IG 3.2.5 7/99 Bryansk IG 3.2.5 7/99 Moscow** IG 3.2.5 7/99 Irkutsk IG 3.2.5 9/99 Novosibirsk IG 3.2.5 9/99 Vladimir IG 3.2.5 9/99 Pushchin IG 3.2.5 10/99 Moscow IG 3.2.5 10/99 Kaluga IG 3.2.5 11/99 Dverzhinsk IG 3.2.5 11/99 Ulyanovsk IG 3.2.5 12/99 Novouralsk IG 3.2.5 1/00 Saratov IG 3.2.5 2/00 Rostov IG 3.2.5 3/00 Moscow IG 3.2.5 3/00 Moscow IG 3.2.5 4/00 Krasnodar IG 3.2.5 5/00 Barnaul IG 3.2.5 6/00 St. Pete IG 3.2.5 7/00 Krasnoyarsk IG 3.2.5 8/00 Vladivostok IG 3.2.5 11/00 Volvograd IG 3.2.5 1/01 Uzhevsk IG 3.2.5 3/01 Penza IG 3.2.5 ETRI 00 IG 3.2.5 ETRI 00 IG 3.2.5 ETRI 00 IG 3.2.5 ETRI 00 IG 3.2.5 ETRI 00	IG 3.2.5 4/99 Samara IG 3.2.5 5/99 Voronezh IG 3.2.5 5/99 Yaroslavl IG 3.2.5 6/99 Oryol IG 3.2.5 6/99 Kazan IG 3.2.5 7/99 Bryansk IG 3.2.5 7/99 Moscow** IG 3.2.5 7/99 Irkutsk IG 3.2.5 9/99 Novosibirsk IG 3.2.5 9/99 Vladimir IG 3.2.5 9/99 Pushchin IG 3.2.5 10/99 Moscow IG 3.2.5 10/99 Kaluga IG 3.2.5 11/99 Dverzhinsk IG 3.2.5 11/99 Ulyanovsk IG 3.2.5 12/99 Novouralsk IG 3.2.5 1/00 Saratov IG 3.2.5 2/00 Rostov IG 3.2.5 3/00 Moscow IG 3.2.5 3/00 Moscow IG 3.2.5 4/00 Krasnodar IG 3.2.5 5/00 Barnaul IG 3.2.5 6/00 St. Pete IG 3.2.5 7/00 Krasnoyarsk IG 3.2.5 8/00 Vladivostok IG 3.2.5 11/00 Volvograd IG 3.2.5 1/01 Uzhevsk IG 3.2.5 3/01 Penza IG 3.2.5 ETRI 00 IG 3.2.5 ETRI 00 IG 3.2.5 ETRI 00 IG 3.2.5 ETRI 00 IG 3.2.5 ETRI 00	IG 3.2.6 5/00 Moscow IG 3.2.6 6/00 Samara IG 3.2.6 10/00 Vladimir IG 3.2.6 12/00 Voronezh IG 3.2.6 2/01 Nizhny Novgor IG 3.2.6 4/01 Yekaterinburg IG 3.2.6 5/01 Briansk IG 3.2.6 6/01 Tula IG 3.2.6 7/01 Rostov IG 3.2.6 02/02 Novosibirsk IG 3.2.6 03/02 Kaluga IG 3.2.6 03/02 Moscow (RASA) IG 3.2.6 03/02 Saransk IG 3.2.6 04/02 Chelyabinsk IG 3.2.6 05/02 Kazan IG 3.2.6 06/02 Kaliningrad IG 3.2.6 06/02 Omsk IG 3.2.6 07/02 Samara IG 3.2.6 07/02 Irkutsk IG 3.2.6 09/02 Nizhny Novgorod IG 3.2.6 10/02 Saratov IG 3.2.6 11/02 Kolomna IG 3.2.6 11/02 Moscow IG 3.2.6 12/02 Ryazan IG 3.2.6 01/03 Tambov IG 3.2.6 02/03 Yaroslavl IG 3.2.6 03/03 Ufa IG 3.2.6 04/03 Barnaul	IG 3.2.6 5/00 Moscow IG 3.2.6 6/00 Samara IG 3.2.6 10/00 Vladimir IG 3.2.6 12/00 Voronezh IG 3.2.6 2/01 Nizhny Novgor IG 3.2.6 4/01 Yekaterinburg IG 3.2.6 5/01 Briansk IG 3.2.6 6/01 Tula IG 3.2.6 7/01 Rostov IG 3.2.6 02/02 Novosibirsk IG 3.2.6 03/02 Kaluga IG 3.2.6 03/02 Moscow (RASA) IG 3.2.6 03/02 Saransk IG 3.2.6 04/02 Chelyabinsk IG 3.2.6 05/02 Kazan IG 3.2.6 06/02 Kaliningrad IG 3.2.6 06/02 Omsk IG 3.2.6 07/02 Samara IG 3.2.6 07/02 Irkutsk IG 3.2.6 09/02 Nizhny Novgorod IG 3.2.6 10/02 Saratov IG 3.2.6 11/02 Kolomna IG 3.2.6 11/02 Moscow IG 3.2.6 12/02 Ryazan IG 3.2.6 01/03 Tambov IG 3.2.6 02/03 Yaroslavl IG 3.2.6 03/03 Ufa IG 3.2.6 04/03 Barnaul	IG 3.2.6 5/00 Moscow IG 3.2.6 6/00 Samara IG 3.2.6 10/00 Vladimir IG 3.2.6 12/00 Voronezh IG 3.2.6 2/01 Nizhny Novgor IG 3.2.6 4/01 Yekaterinburg IG 3.2.6 5/01 Briansk IG 3.2.6 6/01 Tula IG 3.2.6 7/01 Rostov IG 3.2.6 02/02 Novosibirsk IG 3.2.6 03/02 Kaluga IG 3.2.6 03/02 Moscow (RASA) IG 3.2.6 03/02 Saransk IG 3.2.6 04/02 Chelyabinsk IG 3.2.6 05/02 Kazan IG 3.2.6 06/02 Kaliningrad IG 3.2.6 06/02 Omsk IG 3.2.6 07/02 Samara IG 3.2.6 07/02 Irkutsk IG 3.2.6 09/02 Nizhny Novgorod IG 3.2.6 10/02 Saratov IG 3.2.6 11/02 Kolomna IG 3.2.6 11/02 Moscow IG 3.2.6 12/02 Ryazan IG 3.2.6 01/03 Tambov IG 3.2.6 02/03 Yaroslavl IG 3.2.6 03/03 Ufa IG 3.2.6 04/03 Barnaul	IG 3.2.5 4/99 Samara IG 3.2.5 5/99 Voronezh IG 3.2.5 5/99 Yaroslavl IG 3.2.5 6/99 Oryol IG 3.2.5 6/99 Kazan IG 3.2.5 7/99 Bryansk IG 3.2.5 7/99 Moscow** IG 3.2.5 7/99 Irkutsk IG 3.2.5 9/99 Novosibirsk IG 3.2.5 9/99 Vladimir IG 3.2.5 9/99 Pushchin IG 3.2.5 10/99 Moscow IG 3.2.5 10/99 Kaluga IG 3.2.5 11/99 Dverzhinsk IG 3.2.5 11/99 Ulyanovsk IG 3.2.5 12/99 Novouralsk IG 3.2.5 1/00 Saratov IG 3.2.5 2/00 Rostov IG 3.2.5 3/00 Moscow IG 3.2.5 3/00 Moscow IG 3.2.5 4/00 Krasnodar IG 3.2.5 5/00 Barnaul IG 3.2.5 6/00 St. Pete IG 3.2.5 7/00 Krasnoyarsk IG 3.2.5 8/00 Vladivostok IG 3.2.5 11/00 Volvograd IG 3.2.5 1/01 Uzhevsk IG 3.2.5 3/01 Penza IG 3.2.6 5/00 Moscow IG 3.2.6 6/00 Samara IG 3.2.6 10/00 Vladimir IG 3.2.6 12/00 Voronezh IG 3.2.6 2/01 Nizhny Novgor IG 3.2.6 4/01 Yekaterinburg IG 3.2.6 5/01 Briansk IG 3.2.6 6/01 Tula IG 3.2.6 7/01 Rostov IG 3.2.5 ETRI IG 3.2.5 ETRI IG 3.2.5 ETRI IG 3.2.5 ETRI IG 3.2.5 ETRI
		IG9	IG10	IG11	IG12	IG13	IG14	IG15
3/99	9/00							

Industry-Government Relations (IG)

ICP-related Workshops Only-Continued

								IG 3.2.6 02/02 Novosibirsk IG 3.2.6 03/02 Kaluga IG 3.2.6 03/02 Moscow (RASA) IG 3.2.6 03/02 Saransk IG 3.2.6 04/02 Chelyabinsk IG 3.2.6 05/02 Kazan IG 3.2.6 06/02 Kaliningrad IG 3.2.6 06/02 Omsk IG 3.2.6 07/02 Samara IG 3.2.6 07/02 Irkutsk IG 3.2.6 09/02 Nizhny Novgorod IG 3.2.6 10/02 Saratov IG 3.2.6 11/02 Kolomna IG 3.2.6 11/02 Moscow IG 3.2.6 12/02 Ryazan IG 3.2.6 01/03 Tambov IG 3.2.6 02/03 Yaroslavl IG 3.2.6 03/03 Ufa IG 3.2.6 04/03 Barnaul
[redacted]	[redacted]	IG9	IG10	IG11	IG12	IG13	IG14	IG15
3/99	9/00							

List of Total Desired Outcomes and Supporting Evidence

Program Administration and System Automation

To create awareness of, willingness to work in the international community to address common threats.

Evidence:

- NIS Membership in Nuclear Nonproliferation Treaties http://www.cns.miis.edu/db/nisprofs/shared/intorgs/nnptreat.htm
- IAEA Membership and Safeguard Agreements http://www.cns.miis.edu/db/nisprofs/shared/intorgs/iaeasafg.htm
- Member in Nuclear Safety Agreements http://www.cns.miis.edu/db/nisprofs/shared/intorgs/nucsafty.htm
- Table of Membership in Multilateral Control Regimes http://projects.sipri.se/expcon/natexpcon/country_matrix.html

To identify or create government and non-government organizations responsible for export control.

Evidence:

- Diagram of the Russian Federation Export Control System (Source: Russian Center on Export Controls) http://www.expcon.ru/strukt/organ/org_ind.htm
- Organizational Chart of the Russian Export Control System
- Report Russia: Export Controls prepared by the Center for Nonproliferation Studies of the Monterey Institute of International Studies.

To obtain commitment of government and non-government organizations responsible for export controls to cooperate in one or more of the five functional areas.

Evidence:

- Nonproliferation and Export Control (NEC) Cooperation Technical Information Center: http://www.nectic.bxa.doc.gov/nec_frameset.html

To Identify a key decision-maker in each aforementioned entity to work in the cooperation program.

Evidence:

- Names, addresses, and phone numbers http://www.expcon.ru/strukt/organ/org_ind.htm
- Report Russia: Export Controls prepared by the Center for Nonproliferation Studies of the Monterey Institute of International Studies.

To develop a country program plan and schedule of technical exchanges.

Evidence:

- Nonproliferation and Export Control (NEC) Cooperation Technical Information Center: http://www.nectic.bxa.doc.gov/nec_frameset.html

PA 6 To establish an interagency mechanism to coordinate export control administrative and enforcement activities.

PA 7 To create an expert group in country to deploy export control training materials.

PA 8 To modernize and automate the export control system.

PA 9 To adopt international export control policies and practices.

PA 10 To establish government commitment to support an automated export control system project.

PA 11 To assess and define export control automation requirements and to develop a project plan to meet those requirements.

PA 12 To install an export control automation system in country and verify that it is being used to process licenses.

PA 13 To improve technological capability in country to disseminate export control information.

Legal Foundation and Regulatory Development

To create an awareness of the authorities necessary to maintain an effective export control system consistent with international standards.

Evidence:

- Report Russia: Export Controls prepared by the Center for Nonproliferation Studies of the Monterey Institute of International Studies.

To assess the current legal authorities for adequacy for an effective export control system.

Evidence:

- "NEC index of "RF Key Decrees and Legislative Acts" and sample document (Resolution No. 57 "On Further Strengthening of Export Control for Dual-Use Items Related to Weapons of Mass Destruction")
- Report Russia: Export Controls prepared by the Center for Nonproliferation Studies of the Monterey Institute of International Studies.

To draft and/or amend authorities as necessary to support an effective export control system.

Evidence:

- "NEC index of "RF Key Decrees and Legislative Acts" and sample document (Resolution No. 57 "On Further Strengthening of Export Control for Dual-Use Items Related to Weapons of Mass Destruction")
- On-line Collection of Export Control Normative Acts
  http://www.expcon.ru/strukt/liter/litr_ind.htm

To establish a process for review and comment on new or amended legal framework by appropriate governmental bodies, such as legislative, judiciary and executive, and industry.

Evidence:

- Russian Federation Law on Export Control (Draft – Post First Reading)
  http://www.cns.miis.edu/db/nisprofs/russia/cexcon/ff_ruexc.htm
  http://www.cns.miis.edu/db/nisprofs/russia/cexcon/ff_ruexc.htm
- Draft Reporting Cable "Commerce/BXA Hosts Export Control Legislative Forum for Export Control Officials"

To obtain participation of all relevant governmental bodies in the process of creating a legal framework.

Evidence:

- Russian Federation Law on Export Control
  http://www.cns.miis.edu/db/nisprofs/russia/cexcon/ff_ruexc.htm

LR 6 To draft and adopt laws, decrees and regulations to implement the export control system.

Licensing Procedures and Practices

[redacted] To identify institution(s) responsible for executing and/or implementing export control laws and regulations.

Evidence:

- Organizational Chart of the Russian Export Control System
- Diagram of the Russian Federation Export Control System (Source: Russian Center on Export Controls) http://www.expcon.ru/strukt/organ/org_ind.htm

[redacted] To establish an entity or mechanism that brings all relevant expertise in the country to bear on licensing decisions.

Evidence:

- Organizational Chart of the Russian Export Control System
- Diagram of the Russian Federation Export Control System (Source: Russian Center on Export Controls) http://www.expcon.ru/strukt/organ/org_ind.htm

[redacted] To adhere to international export control standards and regimes.

Evidence:

- Table of Membership in Multilateral Control Regimes http://projects.sipri.se/expcon/natexpcon/country_matrix.html
-

[redacted] To adopt control lists that conform with international regime lists.

Evidence:

- Russian Control Lists http://www.expcon.ru/strukt/prod/prod_ind.htm
- "NEC index of "RF Key Decrees and Legislative Acts" and sample document (Resolution No. 57 "On Further Strengthening of Export Control for Dual-Use Items Related to Weapons of Mass Destruction")

LP 5 To establish a mechanism for determining whether something is controlled (I.e., product classification)

LP 6 To verify that classification decisions are based on control lists that conform with international regime lists.

LP 7 To develop a professional core of licensing officials.

LP 8 To establish rules about when a license is required.

LP 9 To establish procedures for obtaining an export license.

LP 10 To establish a time frame to making a license decision.

LP 11 To adopt a national control list that is based on the EU/US model.

LP 12 To establish a mechanism for government and industry to discuss what is controlled and how controls are implemented.

Enforcement Mechanisms

[redacted] To obtain government commitment to establish an enforcement unit, with full law enforcement authorities, which is specifically responsible for export control issues.

Evidence:

- Report Russia: Export Controls prepared by the Center for Nonproliferation Studies of the Monterey Institute of International Studies.

EM 2 To delineate, by law and regulation, duties and responsibilities for enforcing export control laws.

EM 3 To develop and train a professional core of export control enforcement officers.

EM 4 To develop procedures for evaluating parties involved in export, re-export, transit and transshipment transactions.

[redacted] To include enforcement recommendations in licensing decisions.

Evidence:

- Classified Cable State Moscow 017840, 7/13/98
- "Russia Promises to Stop Companies From Aiding Iran's Missile Program," New York Times, 1/16/98
- "U.S. Gets Russia's Firm Vow to Halt Missile Aid to Iran," New York Times, 1/16/98
- "Russia Quits Giving Iran Help On Missiles," Milwaukee Sentinel and Journal, 1/3/98
- Russia to Curb Missile Technology "Leakage," ITAR-TASS, 2/25/00; FBIS Document FTS20000225000375

EM 6 To develop an end-use check program, including pre-license and post-shipment checks.

EM 7 To establish a partnership between enforcement and industry in order to improve industry compliance and enforcement effectiveness.

EM 8 To create government willingness to engage in cooperative investigations and enforcement activities with other responsible nations.

EM 9 To involve enforcement officials in efforts to strengthen regional export control cooperation.

EM 10 To have enforcement officials work cooperatively with U.S. or other nations' export control officers in developing export control enforcement training programs.

Industry-Government Relations

[redacted] To establish government willingness to include industry perspectives in the national export control system.

Evidence:

- Reporting Cable for 12/96 Industry-Government Relations in Export Control Conference (Cable Classified Secret Level)
- Methodological Guidelines for the Establishment of Internal Export Control Compliance Programs http://www.cns.miis.edu/db/nisprofs/russia/cexcon/update/ff_ruupd.htm

IG 2 To institutionalize export controls in the corporate culture.

IG 3 To establish a partnership between government and industry in the operation of a national export control system.

IG 4 To create government commitment to assist exporters in complying with export control laws and regulations.

IG 5 To establish government equality in administering the licensing system and mechanisms for contesting licensing decisions.

[redacted] To allow the establishment of non-government groups that represent industry interests.

Evidence:

- Center on Export Controls (Source: Russian Center on Export Controls - http://www.expcon.ru/)

[redacted] To establish government commitment to support Internal Control Programs for industry and to implement ICP-related training in key industry sectors.

Evidence:

- On-line Collection of Export Control Normative Acts http://www.expcon.ru/strukt/liter/litr_ind.htm
- Federal Law on Export Control, Article 16 http://www.cns.miis.edu/db/nisprofs/russia/cexcon/ff_ruexc.htm
- Methodological Guidelines for the Establishment of Internal Export Control Compliance Programs http://www.cns.miis.edu/db/nisprofs/russia/cexcon/update/ff_ruupd.htm
- "Security Council Working Group Supports Export Control Cooperation with US," ITAR-TASS, 23 June 1999; in "Russia-US Talks on Export Control Considered Expedient," FBIS Document FTS19990623001475. http://www.cns.miis.edu/db/nisprofs/russia/cexcon/ff_ruexc.htm

[redacted] To customize, test, and refine the ICP development software.

Evidence:

- Internal Control Program Development Software (Russian)
- Internal Control Program Development Software (CEC Website) http://www.expcon.ru/

IG 9 To implement the administrative elements of an ICP in 50% of key industry sectors.

IG 10 To implement the administrative elements of an ICP in 75% of key industry sectors.

IG 11 To implement the screening elements of an ICP in 25% of key industry sectors.

IG 12 To implement the screening elements of an ICP in 50% of key industry sectors.

IG 13 To implement the screening elements of an ICP in 75% of key industry sectors.

IG 14 To verify that ICP process and procedures are being properly implemented in key industry sectors.

IG 15 To improve export control awareness in key industry sectors.

US Department of Commerce
BIS/ Nonproliferation and Export Control International Cooperation

Model Country Plan

Program Administration and System Automation

Project Development
PA 1 1 1 Project Development - (PA 1, PA 2)

Country Assessment
PA 1 2 1 Country Assessment - (PA 1, PA 3, PA 5)

Executive Exchange
PA 1 3 1 Executive Exchange I - (PA 4)
PA 1 3 2 Executive Exchange II - (PA 4)

Operation of Export Control Systems
PA 1 4 1 Operation of US Export Control System I - (PA 3)
PA 1 4 2 Operation of Cooperating Country's Export Control System II - (PA 3)
PA 1 4 2 Operation of Cooperating Country's Export Control System III - (PA 3, PA 5)

Train-the-Trainer Module
PA 1 5 1 Program Administration and System Support (1) - (PA 7, LP 1, EM 6)

Program Administration and System Support
PA 1 6 1 Program Administration and System Support (1) - (PA 8, PA 9)
PA 1 6 2 Program Administration and System Support (2) - (PA 8, PA 9)
PA 1 6 3 Program Administration and System Support (3) - (PA 8, PA 9)

Tracker Operations Implementation and Operations Support
Activities TBD

Legal Foundation and Regulatory Development

Legal Technical Forums
LR 2 1 1 Legal Technical Forum I - (LR 1, LR 2)
LR 2 1 2 Legal Technical Forum II - (LR 2, LR 3)
LR 2 1 3 Legal Technical Forum III - (LR 3, LR 4, LR 5)

Parliamentary Forums
LR 2 2 1 Parliamentary Forum I - (LR 3, LR 4, LR 5)
LR 2 2 2 Parliamentary Forum II - (LR 4, LR 5)

Regulations Technical Forum and Workshop
LR 3 3 1 Regulations Technical Forum and Workshop I - (LR 5)
LR 3 3 2 Regulations Technical Forum and Workshop II - (LR 5)

Licensing Procedure and Practices

Licensing Procedures and Practices
LP 2 1 1 Licensing Procedures and Practices Workshop I - (LP 7, LP 8, LP 9, LP 10)
LP 2 1 2 Licensing Procedures and Practices Workshop II - (LP 7, LP 8, LP 9, LP 10)
LP 2 1 3 Licensing Procedures and Practices Workshop III - (LP 7, LP 8, LP 9, LP 10)

National Control List Workshop
LP 2 2 1 National Control List Workshop I - (LP 4, LP 5, LP 6)

Licensing Procedures and Practices Technical Workshop
LP 3 3 1 Licensing Procedures and Practices Technical Workshop I - (LP 7, LP 8, LP 9, LP 10)
LP 3 3 2 Licensing Procedures and Practices Technical Workshop II - (LP 7, LP 8, LP 9, LP 10)

National Control Lists Technical Workshop
LP 3 4 1 National Control Lists Technical Workshop I - (LP 3, LP 4, LP 5)

International Operations Support
LP 3 4 2 International Operations Support (LP 5, LP 6, LP 7)

Preventative Enforcement Measures

Export Control Enforcement Workshop
EM 2 1 1 Export Control Enforcement Workshop I - (EM 1, EM 2, EM 3)
EM 2 1 2 Export Control Enforcement Workshop II - (EM 1, EM 2, EM 3)

Export Control Enforcement Technical Workshop
EM 3 1 1 Export Control Enforcement Technical Workshop I - (EM 4, EM 5, EM 6)
EM 3 1 2 Export Control Enforcement Technical Workshop II - (EM 5, EM 6)
EM 3 1 3 Export Control Enforcement Technical Workshop III - (EM 5, EM 6, EM 7, EM 8)

Export Control Enforcement Technical Workshop for Customs
EM 3 2 1 Program Development I (EM 9)
EM 3 2 2 Program Development II (EM 10)
EM 3 2 3 Enforcement Instructor Training (EM 10)
EM 3 2 4 Program Implementation and Evaluation (EM 11, EM 12, EM13)

Industry - Government Relations

Industry - Government Executive Exchange
IG 2 1 1 Industry - Government Executive Forum I - (IG 1, IG 2)
IG 2 1 2 Industry - Government Executive Forum II - (IG 3, IG 4)
IG 2 1 3 Industry - Government Executive Forum III - (IG 1, IG 2)
IG 2 1 4 Industry - Government Executive Forum IV - (IG 3, IG 4, IG 5)

Industry Internal Control Program
IG 3 2 1 Internal Control Program Development I - (IG 6, IG 7)
IG 3 2 2 Internal Control Program Development II - (IG 6, IG 7)
IG 3 2 3 Internal Control Program Development Software Customization and Maintenance (IG 6)
IG 3 2 4 Internal Control Program Instructor Training (IG 6)
IG 3 2 5 Internal Control Program Deployment (IG 8, IG 10, IG 15)
IG 3 2 6 Internal Control Program Follow-up Product Classification (IG 11, IG 12, IG 13, IG 14, IG 15)

Industry Information Program
IG 3 3 1 Industry Information Program I (IG 4)
IG 3 3 2 Industry Information Program II (IG 4, IG 6)

PA 1 To create awareness of, willingness to work in the international community to address common threat
PA 2 To identify or create government and non-government organizations responsible for export control
PA 3 To obtain commitment of government and non-government organizations responsible for export controls to cooperate in one or more of the five functional areas
PA 4 To identify at least one key decision-maker in each aforementioned entity designated to work in the cooperation program
PA 5 To develop a country program plan and preliminary schedule of technical exchanges
PA 6 To establish interagency forum(s) for coordination of export control development and enforcement activities
PA 7 To create an expert group for the development of export control training materials in country
PA 8 To utilize mid-term job skills and automated aids in administering the export control system
PA 9 To remediate international standard export control practices

LR 1 To create an awareness of essential authorities required to fulfill the country's international export control commitments
LR 2 To assess current authorities for adequacy to allow them to fulfill their export control commitments
LR 3 To draft authorities to address any existing inadequacies in the existing legal structure
LR 4 To adopt procedures for review and comment on proposed changes by appropriate constituencies such as the Parliament, other government agencies, and industry, during enactment and promulgation of the final legal authority
LR 5 To obtain participation of all relevant authorities in the process of creating a legal base

LP 1 To identify institution(s) charged with the responsibility for executing or implementing export control laws and regulations
LP 2 To improve or establish a centralized authority charged with bringing all relevant expertise in the country to bear on the licensing decision system
LP 3 To coordinate practices with international standards and regimes
LP 4 To adopt international standard control lists that conform with international regime standards
LP 5 To develop mechanisms for accessing the technical expertise necessary for official product classifications
LP 6 To incorporate international standard lists into the operation of the national export control system
LP 7 To develop a professional core of licensing officials
LP 8 To establish clear rules about when a license is required
LP 9 To establish simple and easy procedures for obtaining an export license
LP 10 To establish a reasonable time frame to render license decisions

EM 1 To create government commitment to establish an export enforcement effort focusing on preventive approaches
EM 2 To establish clear delineation of responsibility for enforcing export control laws among enforcement authorities
EM 3 To establish a mechanism for coordinating export control enforcement responsibilities
EM 4 To utilize modern methods and technologies for acquiring public information for improved export enforcement decision processing
EM 5 To include enforcement considerations in licensing effectiveness
EM 6 To development or enhance a professional core of enforcement officer focused on the control of items of proliferation concern
EM 7 To establish a partnership between enforcement and industry to leverage enforcement effectiveness
EM 8 To establish government willingness to engage in cooperative investigations and enforcement actions with other responsible nations
EM 9 To establish government commitment to support the development and delivery of export control training curriculum for customs officials throughout the country
EM10 To develop, customize, and refine export control training curriculum for customs officials
EM 11 To familiarize customs officials at the local and regional levels with national export control laws and regulations
EM 12 To verify that customs-related policies and procedures are being properly implemented at the local and regional levels
EM 13 To strengthen enforcement of export control laws and regulations at the local and regional levels

IG 1 To establish government willingness to include industry perspectives in developing all aspects of the national export control system
IG 2 To internalize export controls in the corporate culture
IG 3 To obtain industry participation as partners in the operation of the national export control system
IG 4 To cross government commitment to assist exporters to comply with export control laws
IG 5 To establish government even handedness and fairness in administering the licensing system and the mechanisms for contesting licensing decisions
IG6 To establish organized non-government groups that represent industry interests
IG7 To establish government commitment to support Internal Control Programs for industry and to implement ICP-related training in key industry sectors
IG8 To customize, test, and refine the ICP development software
IG9 To implement the administrative elements of an ICP in 50% of key industry sectors
IG10 To implement the administrative elements of an ICP in 75% of key industry sectors
IG11 To implement the screening elements of an ICP in 25% of key industry sectors
IG12 To implement the screening elements of an ICP in 50% of key industry sectors
IG13 To implement the screening elements of an ICP in 75% of key industry sectors
IG 14 To verify that ICP process and procedures are being properly implemented in key industry sectors
IG15 To improve export control awareness in key industry sectors

GOVERNMENTAL AFFAIRS SUBCOMMITTEE
ON INTERNATIONAL SECURITY, PROLIFERATION
AND FEDERAL SERVICES HEARING ON
RUSSIA AND CHINA: NON-PROLIFERATION CONCERNS AND EXPORT CONTROLS
JUNE 6, 2002

QUESTIONS FOR MR. DAVID ALBRIGHT
FROM SENATOR THAD COCHRAN

Responses from David Albright
October 6, 2002

1.) In your testimony you talked about the lack of a culture supporting export controls in Russia.

- Do you believe that it is possible to develop this support?

Yes

- What needs to be done to do so?

The Russian government must allocate more resources to the implementation of its export controls laws and regulations. It also must stress that exports to secret nuclear weapons programs are bad for business and dangerous for the world and that violators will be punished severely.

Russia needs to place more emphasis on the goal of stopping the spread of nuclear weapons, other weapons of mass destruction, and ballistic missiles. As part of this effort, it must develop a better appreciation for the threats of proliferation, particularly in developing countries such as Iran and Iraq, and convey that concern to Russian enterprises. Although Russian officials recognize in general that effective national export control systems are a necessary part of working toward non-proliferation goals, they often downplay proliferation risks in practice. This attitude sends a mixed signal to enterprises engaged in international business.

To improve Russia's export control culture, the government and enterprises must emphasize the prevention of nuclear proliferation over specific sales and contracts. Support for such a course of action is not widespread in Russian enterprises, many of which are desperate for business. A key requirement of any such effort is the willingness of employees to raise questions about a sale and management's willingness to require and support such efforts.

Immediate priorities include creating effective internal compliance systems at enterprises and developing adequate practices to ensure that end users are legitimate and verified. An on-

going priority is ensuring adequate education and training of Russian government and enterprise personnel in export control laws, regulations, and methods.

Both the Russian government and enterprises must have effective and severe penalties for anyone who engages in illicit exports or otherwise aids a nuclear weapons program. Penalties strong enough to deter illegal activity are currently missing both at the governmental and enterprise level.

The United States has a critical role to play in improving Russian export culture. In particular, it must make a long-term commitment to help Russia create and implement an adequate export control system. To that end, the United States needs to commit additional funding and expertise to help the Russian government. It should also continue pressing its concerns that Russian assistance, whether deliberate or inadvertent, is aiding secret nuclear weapons program or, at a minimum, increasing tensions in volatile regions.

2.) Both Russia and China have assisted in the development of the nuclear infrastructure in Iran. The Intelligence Community assesses that this technology and the contacts made during its development could be used by Iran to develop nuclear weapons.

- Do Russia and China share our view that the development of nuclear weapons by Iran is unquestionably a bad thing?

  The Russian government believes that the development of nuclear weapons by Iran is unquestionably a bad thing.

  The problem is that Russia seeks sales in Iran without thoroughly investigating their end-use, under-appreciates the risk of its exports being diverted to a nuclear weapons program, over-rates the effectiveness of its own export control system to prevent illicit sales, and trusts too much in the ability of current International Atomic Energy Agency (IAEA) safeguards to detect secret nuclear weapons or weapons-related activities in Iran. In addition, too many Russian officials and specialists have the erroneous belief that Iran could not make a nuclear weapon even if it could obtain the necessary items or help from Russia.

- Is there anything we can do to convince the Russians and Chinese that they are assisting Iran in the development of nuclear weapons even when they are participating in quote "civilian projects" and dissuade them from providing nuclear assistance?

  Again, I limit my comments to Russia.

  The United States should continue engaging Russia on this issue, despite the controversy it generates. A purely sanctions approach is ineffective in obtaining the necessary changes in Russia. In addition, engagement provides multiple opportunities to

both change Russian government policy and improve the effectiveness of Russian export controls.

While continuing to press for Russia to end its nuclear or nuclear-related dealings with Iran, the United States should also try to reduce the more immediate dangers posed by these exports to Iran. In particular, the United States should continue to press that Russia maintain its stated commitment to take back spent fuel from the Bushehr nuclear power reactor once it operates. The United States should also press Russia to work together with other countries to insist that Iran sign and ratify the new IAEA advanced safeguards Protocol. The strengthened inspection procedures and rules in the Protocol would make it significantly more difficult for Iran to hide any nuclear activities.

QUESTIONS FOR THE RECORD SUBMITTED TO MR. MILHOLLIN WITH
ANSWERS TO ADDITIONAL QUESTIONS
FROM SENATOR THAD COCHRAN
SENATE GOVERNMENTAL AFFAIRS SUBCOMMITTEE
ON INTERNATIONAL SECURITY, PROLIFERATION AND FEDERAL SERVICES

JUNE 6, 2002 HEARING ON RUSSIA AND CHINA:
NON-PROLIFERATION CONCERNS AND EXPORT CONTROLS

Question1: Mr. Milhollin, you testified before this Subcommittee back in 1997 during a hearing we had on Chinese proliferation.

- Since then, do you think China has made a decision to halt its proliferation activities in accordance with all of its promises and obligations?

- Do you think the Chinese Government will make the concerted effort needed to halt this proliferation?

Answer: There is no evidence that China has made a decision to halt its proliferation activities since I testified 1997. In fact, on July 26, 2002 the press reported that the U.S. State Department had sanctioned eight Chinese firms and two individuals for selling arms to Iran. The companies include several Chinese firms that have been sanctioned in the past. The companies were: the Jiangsu Yongli Chemical and Technology Import-Export Corporation, the China Machinery and Equipment Import-Export Corporation, the China National Machinery and Electric Equipment Import-Export Corporation, CMEC Machinery and Electrical Import-Export Corporation, CMEC Machinery and Electrical Import-Export Corporation, China Machinery and Electric Equipment Import-Export Corporation, Wha Cheong Tai and the China Shipbuilding Trading Corporation (CSTC). The two men sanctioned were Q. C. Chen and Hans Raj Shiv, an Indian national. The sanctions were reportedly imposed based on intelligence reports of sales of advanced conventional weapons to Iran.

The sanctions in July followed on the heels of other U.S. sanctions imposed in May 2002 against a group of 14 Chinese and European arms exporters. The press reported that their offense was selling cruise missile and chemical weapons goods to Iran in violation of the 2000 Iran Nonproliferation Act. According to press reports, the Chinese entities sanctioned for the chemical weapons goods included the Liyang Chemical Equipment Co., and the Zibo Chemical Equipment Plant (also known as Chemet Global Ltd.), the Wha Cheong Tai Co., and the China National Machinery and Electric Equipment Import and Export Co. The Chinese entities sanctioned for the missile component sales were the China Shipbuilding Trading Co., the China Precision Machinery Import/Export Corp. and the China National Aero-Technology Import and Export Corp.

Judging from the repeated violations by some of these Chinese firms, it seems unlikely that the Chinese government will do much to stop proliferation in the future.

Question 2: Mr. Milhollin, in your testimony you mentioned that the companies and individuals sanctioned by the State Department aren't denied access to the dual-use items that are on the Commerce Control List. A number of previous hearings we held have shown that these dual-use items often can be used for the development of weapons of mass destruction and ballistic missiles.

- Why are the companies that are sanctioned by the State Department not placed on the Commerce Department's Entities List?

- What impact could placing these companies and individuals on the Commerce Department's Entities List have on them?

Answer: I strongly believe that these companies should be placed on the Commerce Department's "entities list." The fact that they consistently sell dangerous technology to countries that are trying to develop weapons of mass destruction shows that these companies cannot be trusted with American exports. It makes sense to require U.S. government scrutiny-in the form of an export license-for their imports from the United States.