Mr. SHAYS. Thank you, Ambassador, for your very thoughtful statement. We appreciate it.

Mr. Spring.

STATEMENT OF BAKER SPRING

Mr. SPRING. Thank you, Mr. Chairman. Obviously, this is a pressing topic, and I very much commend the subcommittee for holding such a timely hearing. Along with the related issue of terrorism, I don't think that there is any more important security problem facing the United States than this today.

I would like to focus my remarks on the recommendations of the U.N. Commission on Weapons of Mass Destruction. You have heard from Dr. Blix earlier, and I think that it is worth the time of the committee to at least assess some of the more important recommendations, at least that I found in the Commission's report.

Let me say that I think that it is essentially a mixed bag. There are some recommendations in the Commission report that I think are very positive and valuable with regard to what U.S. policy should be toward nuclear nonproliferation, as well as potentially other weapon of mass destruction, but I think that there are others that could muddy the waters and make it more difficult to move forward, so I just want to itemize those, both on the positive and negative side of the ledger.

First, I think that the Commission was absolutely correct in saying we need to focus on the underlying motivations that cause countries to try to pursue weapon of mass destruction and nuclear weapons, in particular. Getting at that dynamic to me I think is at the heart of the problem. That suggests a two-track approach to nonproliferation, one that is the NPT track that is global in nature, and the second track that looks at the regional issues that I think are coming to the fore, particularly in this era, in order to address those underlying security concerns that would drive nuclear proliferation.

The second is one that has been addressed by this hearing in detail, also addressed by the Commission report, which is the special threat posed by terrorists with weapon of mass destruction, and again particularly nuclear weapons. In that particular case I think the real risk is, if they get them, the propensity to use them is much higher than for states, for reasons that are unique to terrorist organizations.

Another positive recommendation of the Commission report is very much related to the first issue I raised, which is this regional dimension. The Commission report addresses that, particularly in the hard cases of Iran and India and Pakistan. In this section of the report I wish they had spent a little more time on North Korea. They did that in other sections, but I think that is to be commended.

Continuing the Russian-U.S. nuclear arms control process, the United States is continuing to do that, and I think supporting the administration in its engagements with Russia which occurred earlier this month, as I understand it, regarding the future of start, for example, is important.

Maintaining high standards on controlling fissile material and making sure that those control mechanisms are effective is very important, in my view.

Let me deal with what I think are some of the problematic elements of the Commission's report, which was also addressed by Ambassador Graham.

The temptation to move directly to comprehensive nuclear disarmament I think is wrong headed. What they are basically saying is that we are having trouble in the nonproliferation regime; let's move the goalpost farther down the field in the hope that we would somehow achieve those goals more quickly. I think that is sort of convoluted logic and I think it carries some very significant security risks for the United States.

The importance of the Nation state system—I think that the Commission pays too little credit to nations to make decisions regarding their own security, and in this case particularly the United States. The Commission makes recommendations that would concede to the United Nations Security Council greater powers than I think that they really should be exercising in terms of making decisions about when a threat is present and what we would do about that in the case of the United States as an individual nation.

Pursuing no first use policies, as well as granting broader negative security assurances—I believe that the idea of the United States providing security assurances on the positive side, as we have done with some problematic states in the past vis-a-vis proliferation, like South Korea and Taiwan, are very important. And modernizing our nuclear arsenal to make sure that those security assurances are effective is very important.

The same thing goes with regard to withdrawing U.S. nuclear weapons from foreign soil, in this case particularly NATO Europe. That is part of our essential security relationship with our NATO allies. I don't think that we should compromise on that in the context of hoped-for nonproliferation or, more particularly, arms control goals.

The Comprehensive Nuclear Test Ban Treaty—I believe very strongly that we have to modernize our nuclear force to make it effective in the current environment. We have a hold-over deterrent from the cold war. I think we need to look at making sure that force is safe, reliable, and effective, and I think the comprehensive test ban treaty is a problem with that.

De-alerting nuclear weapons has the same problem.

The one that I object to the most is the idea that defensive systems like missile defense systems are effectively in the same category as weapon of mass destruction, as they were treated in an intertwined fashion in the Commission's report. They are fundamentally different, and I think we should treat them that way.

So I think that the subcommittee should look at the recommendations of the Commission with a discriminating eye.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Spring follows:]

TESTIMONY OF BAKER SPRING

F.M. KIRBY RESEARCH FELLOW IN NATIONAL SECURITY POLICY

THE HERITAGE FOUNDATION

BEFORE

THE SUBCOMMITTEE ON
NATIONAL SECURITY, EMERGING THREATS
AND INTERNATIONAL RELATIONS

OF

THE UNITED STATES HOUSE OF REPRESENTATIVES

ON

WEAPONS OF MASS DESTRUCTION:
CURRENT NUCLEAR PROLIFERATION CHALLENGES

SEPTEMBER 26, 2006

Mr. Chairman, I am honored to have the opportunity to testify before your Subcommittee. The challenge to the national security of the United States posed by the proliferation of weapons of mass destruction, and nuclear weapons in particular, along with the related challenge presented by terrorism, should be of supreme concern to Congress. Thus, this is a timely and important hearing.

Earlier in this hearing, the Subcommittee heard from Dr. Hans Blix. Dr. Blix has served as the chairman of an international commission recommending approaches to countering the proliferation of weapons of mass destruction. The report of the Weapons of Mass Destruction Commission (hereafter referred to as the Commission), entitled *Weapons of Terror: Freeing the World of Nuclear, Biological, and Chemical Arms*, was released on June 1. Given the seriousness of this report and the attention it has drawn, I think it will be useful to focus my remarks on some of the more important recommendations of the Commission. In keeping with the topic of this hearing, I will limit my remarks to the issue of nuclear proliferation.

The recommendations of the Commission, specifically as they relate to the topic of nuclear proliferation, constitute a mixed bag of approaches. Some of the recommendations are valuable and will point the U.S. government in the right direction. Others, while well-intended, will not serve the cause of nuclear nonproliferation well. It is therefore important that Congress view the Commission's recommendations with a discriminating eye.

VALUABLE RECOMMENDATIONS

There are five recommendations in the Commission report that make a solid contribution to the shared cause of nuclear nonproliferation. These are recommendations Congress would be wise to incorporate into U.S. nuclear nonproliferation policy.

Focus on the underlying motivations that drive nuclear proliferation. Among the Commission's recommendations regarding proliferation generally is one that states should pursue policies "designed to ensure that no state feels a need to acquire weapons of mass destruction." In the area of nuclear weapons in particular, this recommendation is pertinent. It recognizes that broader requirements for security cannot be separated from matters related to nuclear proliferation. Nuclear nonproliferation policy must take account of the circumstances that lead states to pursue nuclear weapons in the first place.

This recognition has driven The Heritage Foundation to undertake a series of studies, related to stability in regional settings that are presumed to be proliferated with nuclear weapons, by using the game tool. These studies do not necessarily assume that nuclear proliferation is inevitable. Rather, they are an attempt to provide a means to understand the value or lack of value of nuclear weapons in addressing broader security concerns by proliferating states in these regional settings. The focus is more on matters of use and nonuse rather than possession.

By implication, the Commission's recommendation regarding the underlying desire for nuclear weapons suggests a two-track policy for addressing nuclear proliferation. The first track is represented by the global nuclear nonproliferation regime derived from the Nonproliferation Treaty (NPT). The second track is represented by efforts at regional security arrangements that will dampen the appetite for nuclear weapons and pave the way for realization of the goal of the NPT, which is just five states possessing nuclear arms.

Address the special threat posed by terrorist organizations attempting to acquire nuclear arms. The Commission report pays special attention to the threat posed by terrorist organizations that are seeking nuclear weapons. Since there is compelling evidence that terrorist organizations are working to obtain nuclear weapons and other weapons of mass destruction, this emphasis is warranted. Given the experience with September 11, it is also clear that terrorist organizations, compared to states, are more likely to use any such weapons that they obtain.

The Commission specifically recommends working on measures for preventing terrorists from obtaining the fissile material necessary to build a weapon and assembled weapons. At the heart of these measures is strengthened procedures for insuring the physical protection of fissile material and weapons by the states that possess them. To its credit, the Bush Administration is already promoting these measures, both multilaterally and with individual states. It provided leadership at the United Nations Security Council to obtain approval of United Nations Security Council Resolution 1540. Further, it is working with the states of the former Soviet Union under the Cooperative Threat Reduction Program. As you know, Congress has provided essential support to the Bush Administration in this effort.

Address the regional dimension of the nuclear proliferation problem. The Commission also paid special attention to the regional dimension of the nuclear proliferation problem. Appropriately, it has focused on the Middle East and South Asia regions. Clearly, the U.S. and other states need to pay attention to the special proliferation problems presented by India, Iran, and Pakistan. On the other hand, the Commission, in my view, should have considered the special problem presented by North Korea more thoroughly in this section of its report. The Bush Administration and Congress are already focused on the problem cases of India, Iran, Pakistan, and North Korea. In fact, efforts by the U.S. and Great Britain on this front have led to a breakthrough with the government of Libya in acknowledging its possession of production components for building nuclear weapons and agreeing to divest itself of these components.

The Commission's primary recommendation is to strengthen the process for adopting and implementing nuclear weapons–free zones in relevant regions. While this recommendation is appropriate in certain instances, it must be supplemented by an effort that focuses on the issues surrounding the use of nuclear weapons as much as it focuses on their mere possession. This means stepping up the effort in the second track of the

two-track policy I described earlier by engaging in broader discussions of regional security.

Continue the U.S.–Russian nuclear arms control process. The Commission's report places strong emphasis on the relevance of the U.S.–Russian arms control process to nonproliferation. There is no doubt that the U.S.–Russian process is relevant. The fact that U.S. and Russian negotiators met here earlier this month to discuss the future of the Strategic Arms Reduction Treaty (START) indicates that both the Bush Administration and the Russian government understand this linkage. Congress would be well-advised to support the efforts of the Bush Administration in these talks.

The Commission, however, is rather stingy in its acknowledgment of the considerable progress that the U.S. and Russian governments are making toward reducing their nuclear forces. The Commission uses the phrase "disarmament in disarray" too easily. It also takes an explicitly anti-American stance in this regard, charging that the U.S. is "less interested in...treaty making that it was during the Cold War."

In fact, strategic arms control is *not* in disarray. During the Cold War, despite what the Commission sees as a greater willingness by the U.S. to engage in arms control, strategic nuclear forces in both the U.S. and the Soviet Union were growing rapidly. Today, the U.S. and Russia are on a path to reducing their strategic nuclear forces to between 1,700 and 2,200 warheads each under the Strategic Offensive Reductions Treaty (SORT) or Moscow Treaty. It is unequivocally the case that the U.S. and Russia are meeting their obligations under Article VI of the NPT.

Maintain high standards for the handling of fissile material and nuclear weapons. Physical protection measures for fissile material and nuclear weapons are a matter of great concern to the Commission. This is appropriate. Nobody wants to see the chain of custody over fissile material or nuclear weapons break down, other than the terrorist organizations that will use criminal means to obtain nuclear weapons.

The Commission rightly points to the need to insure that the people who are responsible for managing and executing these physical protection measures are both reliable and technically competent. Congress would be well-advised to use its oversight responsibilities to ensure that the system for investigating the backgrounds of individuals who are recruited for these sensitive jobs in the U.S. nuclear sector is strong and that they are given continuous training in their careers. Assuring the physical security of the nuclear materials and weapons in the U.S. should be among Congress's highest priorities.

MISGUIDED RECOMMENDATIONS

Unfortunately, the Commission report also makes a number of recommendations that will not serve the nonproliferation cause. In these cases, Congress would be wise to set the recommendations aside and not incorporate them into U.S. nuclear nonproliferation policy. On this basis, the specific stances that both the Bush

Administration and Congress should take regarding U.S. nonproliferation policy that step away from the Commission's recommendations are as follows.

Do not attempt to proceed directly to comprehensive nuclear disarmament. As the title of the Commission's report makes clear, its recommendations are focused more on outlawing weapons of mass destruction, and most specifically nuclear weapons, than on nonproliferation. While the issues of nonproliferation and abolition are related, they should proceed sequentially. The framers of the NPT did not intend for the treaty to be an abolition treaty. If that had been their intention, they would have drafted a treaty that outlaws nuclear weapons. They did not do so because they recognized that a treaty outlawing nuclear weapon was too ambitious an undertaking at that time.

Given that the treaty's goal of nonproliferation has still not been realized over 35 years later, their caution was well-founded. It is clear that the relationship between nuclear nonproliferation and nuclear abolition is one of sequential timing. The NPT's more immediate goal of limiting the world to five designated states possessing nuclear weapons should be the focus of attention. The Commission, however, applies the convoluted logic that the goals for nuclear arms control will be more attainable if the goal posts are moved farther away.

The Commission's emphasis on disarmament over nonproliferation would also put nuclear arms control on a dangerous path. The Commission draws explicit ties between its stated goal of outlawing nuclear weapons and existing treaties outlawing the other two categories of weapons of mass destruction: biological and chemical weapons. Therefore, it is critical that this Subcommittee recognizes the implications of the approach recommended by the Commission.

The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, for example, entered into force in 1975. The U.S. is a party to the treaty and long ago dismantled its arsenal of biological weapons. Nevertheless, biological weapons still exist in the world today, and the U.S. was subject to limited attacks with biological agents in 1984, 2001, 2003, and 2004. If the U.S. goes down the path of nuclear disarmament recommended by the Commission, it is all but certain that the U.S. will wind up possessing no nuclear weapons while other states and non-state actors will continue to possess them. This outcome is completely at odds with the requirements for U.S. security now and in the future. The U.S. should not pursue nuclear disarmament until nuclear weapons are no longer necessary to protect its national security.

Do not apply nonproliferation policy in a way that attempts to override the nation-state system and state sovereignty. The Commission denigrates the right of states to take steps, including the use of force, to defend themselves. It would leave it to the United Nations Security Council to determine when a state is sufficiently threatened to take steps in its own defense. It misinterprets Article 51 of the United Nations Charter as defining the right of self-defense as a qualified right. Article 51, in fact, recognizes the

right to self-defense as an inherent right. Self-defense is both a necessary attribute of state sovereignty and a state's obligation to its citizens.

Neither the U.S. nor any other sovereign state should cede to the United Nations Security Council the authority to determine when it is threatened and what measures it may take to meet any recognized threat. This is because the Security Council and other institutions of the United Nations have no responsibility for or interest in defending the security of any particular state and no obligation to the citizens of that state. Just because some United Nations bureaucrats want the power to override state sovereignty is no guarantee that they would assume any commensurate responsibility. In short, they seek power without responsibility or accountability.

This pertains to issues of nonproliferation and arms control as much as it does to the use of force. Former Secretary of State George Shultz put it best in a speech he gave before the Library of Congress in February 2004, when he stated:

> First and foremost, we must shore up the state system. The world has worked for three centuries with the sovereign state as the basic operating entity, presumably accountable to its citizens and responsible for their well-being. In this system, states also interact with each other to accomplish ends that transcend their borders. They create international organizations to serve their ends, not govern them.

Do not pursue a "no first use" policy or expand the granting of "negative security assurances." The Commission also recommends that the U.S. and other nuclear weapons states adopt a no first use policy regarding nuclear weapons and expand the granting of "negative security assurances" to non-weapons states. The first proposal would have the U.S. and other nuclear weapons states pledge that they will never be the first to use nuclear weapons. Theoretically, this would prohibit the use of nuclear weapons because if all nuclear weapons states pledged not to use nuclear weapons first, then no such state would be in a position to use this type of weapon. The second proposal would have the U.S. and other nuclear weapons states enter into a treaty that would prohibit these states from using or threatening to use nuclear weapons against a non-weapons state.

Both recommendations are at odds with the requirement for deterrence. The U.S. has been careful not to state categorically under what circumstances it might resort to the use of nuclear weapons. This policy of constructive ambiguity is designed to enhance deterrence and limit the opportunities for aggression. Further, the policies recommended by the Commission assume that matters related to the use of nuclear weapons exist in a vacuum. History teaches that the opposite is true. Issues related to the use of nuclear weapons are necessarily linked to issues related to the use of conventional weapons and other types of weapons of mass destruction. For these reasons, the U.S. should continue its policy of constructive ambiguity regarding the potential for the use of nuclear weapons.

Do not withdraw U.S. nuclear weapons from foreign locations where they are currently present. It is assumed that the U.S. has a small number of tactical nuclear weapons, in the form of gravity bombs, in Europe to support its NATO commitments. The Commission recommends that the U.S. withdraw these weapons from Europe and make a commitment not to deploy any type of nuclear weapon on foreign soil.

This recommendation is counterproductive. A major factor in limiting the proliferation of nuclear weapons has been the alliance commitments the U.S. has made to other states around the world. It is axiomatic that the pressure on Europeans, for example, to obtain nuclear weapons will grow if the U.S. moves to withdraw the weapons that are the means to counter nuclear blackmail or aggression. It is curious that the Commission would focus such attention on the value of negative security assurances by the U.S. to non-nuclear states, described above, while all but dismissing the value of the positive security assurances the U.S. provides to its allies. The U.S. should not take steps in either nonproliferation or arms control that are inconsistent with or call into question the security commitments it has extended to its allies.

Do not ratify the Comprehensive Test Ban Treaty (CTBT) or curtail U.S. nuclear weapons modernization efforts. The CTBT is a treaty of unlimited duration that prohibits explosive tests of nuclear weapons. The Treaty will enter into force 180 days after its ratification by 44 specifically named states. Of those named states, 34 have ratified it. Seven of the remaining ten have signed but not ratified it. Three have neither signed nor ratified it. It is unlikely that the CTBT will ever enter into force.

The Commission recommends that the ten remaining states required for entry into force, including the U.S., move quickly to ratify the CTBT. Further, it recommends that states refrain from nuclear testing. Finally, it recommends that CTBT signatories seek provisional entry into force of the Treaty.

President Clinton signed the CTBT on behalf of the U.S. in 1996. The Senate, however, voted to reject ratification of the Treaty in 1999. The Senate took this action because it recognized that a permanent prohibition on the testing of nuclear weapons would jeopardize the safety, reliability, and effectiveness of America's nuclear arsenal.

What was true in 1999 is true today. The fact is that the U.S. has a nuclear arsenal that is left over from the Cold War. This is the case despite the fact that the requirements for deterrence and the operational requirements for nuclear weapons are different from the Cold War era. As modernization efforts are curtailed, the risk grows that the U.S. nuclear arsenal will become ineffective in meeting projected needs. This makes it imperative that the U.S. modernize its nuclear arsenal to adapt it to the requirements of the post–Cold War world. While there is no certainty that such modernization efforts will require the resumption of explosive testing, it is very possible.

The evidence clearly leads to only one conclusion: U.S. ratification of the CTBT would run counter to U.S. interests and could also jeopardize the security of U.S. allies that depend on a modern and capable U.S. nuclear deterrent in the post–Cold War world.

The continued safety and reliability of the U.S. nuclear arsenal might also require the resumption of nuclear testing. First, nuclear testing has been used to discover whether there is a fundamental problem with a particular weapon in the arsenal. The U.S. has not conducted a test explosion since 1992. The longer this remains the case, the higher the risk that the U.S. military will continue to field a nuclear weapon with an undiscovered problem. Second, an explosive test might be required to certify that a fix to a problem with a type of weapon that is discovered by means other than explosive testing is in fact effective.

The Commission's recommendation regarding provisional entry into force of the CTBT is the most pernicious in this area. What it seeks to do is to marginalize the Senate's role in the treaty-making process. If the executive branch is able to select treaties that the U.S. will consider as having entered into force without formal Senate consideration and ratification, then the U.S. Constitution's requirement for direct Senate involvement in the treaty-making process will be rendered obsolete.

President Bush, for these and other reasons, has stated that the U.S. will not ratify the CTBT. Both security and constitutional reasons make it clear that President Bush's position on this issue is the correct one. There is no compelling reason why the U.S. should reverse its current position and ratify the CTBT and press for its entry into force. Indeed, the focus should be on modernizing the U.S. nuclear arsenal to give it new capabilities and make it more effective in meeting the security needs of the post–Cold War world.

Do not "de-alert" U.S. nuclear weapons. The Commission asserts that deployed U.S. strategic nuclear weapons are on "hair-trigger" alert. They are not. The U.S. military has effective and redundant command and control systems to reduce to an absolute minimum the likelihood that a weapon in the arsenal will be fired by accident or without proper authorization. What the Commission recommendation would do is to lengthen the time required to execute an authorized nuclear operation and thereby reduce the operational effectiveness of the U.S. nuclear arsenal.

Thus, the Commission, at one level, proposes a solution that is in search of a problem. Second, it would reduce the operational effectiveness of the U.S. nuclear deterrent and simply assume that the reduction in effectiveness will have no adverse impact on nonproliferation as would-be enemies seek to build capabilities to exploit the weakness and U.S. friends look to build the means to fill the gap in overall nuclear stability. Congress has a solemn responsibility to insure that the U.S. nuclear arsenal is operationally effective. The Commission is all but demanding that Congress step away from that responsibility.

Do not equate non-nuclear defensive systems, such as missile defense and space systems, with nuclear weapons. Perhaps the most outrageous of the Commission's recommendations would have the U.S. curtail its non-nuclear missile defense and space programs. First, it recommends that the U.S. "not consider the

deployment of any kind of missile defense system without first attempting to negotiate the removal of missile threats." Second, it recommends that the U.S., along with other states, "renounce the deployment of weapons in outer space." By including these recommendations in a report on "weapons of terror," the Commission, perhaps inadvertently, is equating these non-nuclear and defensive systems with weapons of mass destruction. There is no justifiable reason to lump these two categories of weapons together.

The Bush Administration and Congress are pursuing missile defense capabilities in order to meet the most elemental defense needs of the American people and U.S. friends and allies against attack. It is pursuing military capabilities in space because space is already heavily militarized and weaponized and because the possession of these capabilities dramatically increases the effectiveness of the U.S. military. Both defensive and space systems will serve to lessen the appeal of weapons of mass destruction to states and even non-state actors that might otherwise seek them by raising questions about their potential effectiveness.

The Bush Administration and Congress are right to work to provide the U.S. military with robust missile defense and space capabilities. Doing so will not only improve the overall capability of the military to provide for national security in the post-Cold War world, but also serve to reinforce long-standing U.S. goals for stopping the spread of weapons of mass destruction generally and nuclear weapons in particular.

CONCLUSION

Mr. Chairman, the U.S. has had a long-standing interest in realizing the promise of the NPT to limit the number of nuclear weapon states in the world to the five recognized by the Treaty itself. Many recommendations have been put forward in the past to realize this goal, and no doubt there will be additional recommendations in the future. These recommendations must stand or fall on their individual merits. Just because an idea is put forward for the stated purpose of limiting nuclear proliferation does not mean that it necessarily serves that goal. In fact, many such proposals will appear on the surface to further the goal of nuclear nonproliferation while in reality serving to undermine progress in nonproliferation.

Dr. Blix's Commission makes a number of recommendations that will make valuable contributions to the attempts to realize the goal of nuclear nonproliferation, but others have considerable surface appeal and only limited substantive merit. Congress therefore should not treat the Commission's report as a "take it or leave it" proposition. It needs to discriminate between the various recommendations on the basis of their individual contributions to the cause of nuclear nonproliferation.

****

Mr. Chairman, consistent with House rules, I would like to describe The Heritage Foundation for you and the Committee. The Heritage Foundation is a public policy, research, and educational organization operating under Section 501(C)(3). It is privately supported and receives no funds from any government at any level, nor does it perform any government or other contract work.

The Heritage Foundation is the most broadly supported think tank in the United States. During 2005, it had more than 275,000 individual, foundation, and corporate supporters representing every state in the U.S. Its 2005 income came from the following sources:

Individuals	63%
Foundations	21%
Corporations	4%
Investment Income	9%
Publication Sales and Other	3%

The top five corporate givers provided The Heritage Foundation with 2% of its 2005 income. The Heritage Foundation's books are audited annually by the national accounting firm of Deloitte & Touche. A list of major donors is available from The Heritage Foundation upon request.

Members of The Heritage Foundation staff testify as individuals discussing their own independent research. The views expressed are their own and do not reflect an institutional position for The Heritage Foundation or its board of trustees.

Mr. SHAYS. Thank you very much.
Mr. Granoff.

STATEMENT OF JONATHAN GRANOFF

Mr. GRANOFF. Thank you, Mr. Chairman.

First I want to extol not only your virtue of courage but your extraordinary endurance, and I would like to offer for the record two articles, one from the Chicago Sun Times and the other from the San Francisco Chronicle extolling the virtues of the WMD Commission, the Blix Commission, if I am permitting.

Mr. SHAYS. We will put that in the record. Thank you.

Mr. GRANOFF. Thank you.

Mr. SHAYS. And, just for the record, this is a very interesting hearing, so I could just tell you we are very grateful that you all had the patience. We get to participate and stay awake.

Mr. GRANOFF. Well, I was told in 1965, when I met Robert Kennedy here while I was working on the Hill, the reality of the Cuban missile crisis, and that on several moments civilization hung in the balance, and he told the group of interns, in rapt attention, as we were, that addressing this issue would determine not only the moral standard of our time but whether, in fact, humanity would survive. So since that time the issue has been in my gut, in my heart, and in my soul, and so I consider it an enormous honor to be able to address it here in these hallowed halls.

Mr. SHAYS. Thank you.

Mr. GRANOFF. The shock of coming to the brink stimulated negotiations which culminated in the entry into force in 1970 of the Nuclear Non-Proliferation Treaty, which contains the structure to prevent proliferation in the present based on a pledge of nuclear disarmament in the future, but the pledge must have credibility and the nuclear weapon states, particularly the U.S. and Russia, with over 96 percent of these devices, have not fully come to grips with their fundamental dilemma. They want to keep their nuclear weapons indefinitely, and at the same time condemn others who would attempt to acquire them. This contradiction undercuts the treaty and enables our adversaries to challenge U.S. sincerity and ignore our recommendations.

Moreover, incoherence in policies leads to instability in cooperation, and nothing could be more hazardous today.

In order to prevent proliferation to more states and to dangerous sub-state actors, far greater cooperation is required. This will not be obtained if some states flaunt their disarmament obligations yet display a singular passion for nonproliferation.

The path to stability is an unambiguous reaffirmation of collective security through the rule of law, which in this instance requires a clear commitment to rendering the weapons, themselves, as unacceptable. This is both the correct and practical compass point.

Are we urging disarmament this year? Hardly. The U.S. sets the example. Lowering the political currency of nuclear weapons can make us all safer. We are urging steps that will enhance security, strengthen fulfillment of existing legal obligations, provide confidence through verification to the international community, and each recommendation must stand on its own merits. Each must de-

crease the risk of use, diminish access of terrorists to catastrophic weapons and materials to build them, and strengthen nonproliferation.

Here are five:

A Fissile Material Cutoff Treaty, and we commend the administration for putting it forward, but for it to be effective there must be verification. Verification, as President Reagan said correctly, trust but verify. And the Strategic Offensive Reduction Treaty, the SORT Treaty, which requires Russia and the United States each to deploy no more than 2,200 strategic warheads by 2012, includes no provision for verification. Start inspections end in 2009. It is imperative to establish a verification for the SORT Treaty to have international political meaning. Goodwill is not politically nor practically sufficient. We need laws with verification.

Reduction of the operational status of nuclear weapons—the United States and Russia still have thousands of warheads on a use them or lose them posture. It should be an absolute scandal that every moment of every day the two countries remain locked in a Cold-War-style nuclear standoff. It is time to end launch on warning. The U.S. and Russia should follow the admonition of Candidate George W. Bush, who clearly said, "We should remove as many weapons as possible from high alert hair trigger status, another unnecessary vestige of cold war confrontation. Preparation for quick launch within minutes after warning of an attack was the rule during the era of superpower rivalry, but today, for two nations at peace to keep so many weapons on high alert may create unacceptable risks of accidental or unauthorized launch."

Comprehensive Test Ban Treaty would prevent the miniaturization of immature arsenals, it would restrain confinement of advanced arsenals, it would protect the environment, and it would create the infrastructure, the legal and practical infrastructure of cooperation around the world with U.S. leadership, if we would but support it. It was promised in the preamble of the NPT, it was pledged in order to gain the extension of 1995, and it was reaffirmed at the review of 2000. Moreover—and this might be the most important aspect of a Comprehensive Test Ban Treaty—it would send a clear message of the diminishing currency of the weapons. The United States has tested more than anyone else our arsenal is secure, safe, and reliable. So said the Joint Chiefs of Staff, and they were correct.

A diminishing role of nuclear weapons in security policies, as a minimum step, we must unambiguously establish negative security assurances. In order to gain extension of the treaty in 1995, countries without nuclear weapons were promised that if they would accede to the extension, that they would not be threatened with nuclear strikes. To ask a country to foreswear these devices and still suffer under the threat of nuclear attack is so patently inequitable as to lend credence to critiques of the regime, itself. The U.S. should support rather than oppose giving these assurances of nonuse to nuclear weapon states parties to the NPT.

Moreover, during the cold war we justified the first use policy based on the superiority of the USSR's conventional force threat to western Europe. The threat is gone. It is time to adopt a no first use policy.

These are modest proposals that demonstrate a beginning to authentically reduce the political posture of the weapons. These actions are achievable, inexpensive, and they are available now. Reliance on ultimate weapon of mass destruction leads the world in exactly the wrong direction. Its logical outcome is an increasing militarization of the world rather than the needed movement toward law and cooperation, and its logical expression reaches burlesque proportions in the aspiration to unilaterally weaponize the firmaments rather than pursue a cooperative non-weaponized regime for outer space.

Is it a wonder that, while the rational leaders of the world's most powerful nations daily place on alert thousands of devices delivering immeasurable destructive capacity, cynicism prevails? Is such a hopeless future the best we can provide our children? Do we really believe that counter-proliferation exercised through ad hoc coalitions can be an adequate substitute for effective diplomacy? Why are we pursuing a regime based on principles of seasonal friendship rather than the uniformity and reliability of law? Have we forgotten that the weapons of today have triggering devices with the destructive capacity of Hiroshima? We need no longer live with this sword over our heads.

In India today there are Hindu fundamentalists speculating seriously whether these are the end days, and, like them, there are in the United States fundamentalist Christians who believe very much like their Islamicist brethren or Messianic Jews that we await the final battles which will bring an end to history, and all of them believe that this disaster is coming about from unseen hands. But, Mr. Chairman, Members of Congress, you and I know they are wrong. It is not unseen hands that is bringing about this destruction; it is hands of rational men in these very halls. I ask you to look at these hands, and I ask you to have the courage to prove these speculations wrong.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Granoff follows:]

Weapons of Mass Destruction: Current Nuclear Proliferation Challenges

Testimony by
Jonathan Granoff, Esq.
President
Global Security Institute
GSB Building, Suite 400
One Belmont Avenue
Bala Cynwyd, PA 19004
Tel: 610-668-5488
Fax: 610-668-5489
www.gsinstitute.org

Presented before a hearing of the
House Committee on Government Reform
Subcommittee on National Security, Emerging Threats and International Relations
United States House of Representatives
Washington, D.C.

September 26, 2006

In 1965, I met Robert Kennedy while working in Washington. A small group of interns listened in rapt attention as he explained how close we were to the end of civilization during the Cuban Missile Crisis. I will never forget how he emphasized that the challenge of eliminating nuclear weapons before they eliminate us is the litmus test for humanity. Success or failure will determine our moral standard and our capacity to be led by reason and law to security, or to oblivion through fear, the quest for power, and apathy.

Nearly every country in the world has accepted the Nuclear Nonproliferation Treaty (NPT) as a necessary legal instrument to address this threat. While simultaneously condemning the spread of nuclear weapons, this treaty sets forth a related obligation to obtain their universal elimination. In 1995, in order to obtain the indefinite extension of the NPT, now with 188 states parties, commitments to nuclear elimination were confirmed and strengthened by the five declared nuclear weapon states – China, United States, France, Russia, and Britain. However, the nuclear weapon states with over 96% of the weapons, the United States and Russia, have not fully addressed their fundamental dilemma: they want to keep their nuclear weapons indefinitely and at the same time condemn others who would attempt to acquire them. It is as if parents were telling their children not to smoke while puffing on cigars themselves. It is simply not effective.

This incoherence in policies leads to instability in cooperation. Nothing could be more hazardous in today's world. In order to ensure that nuclear weapons do not proliferate to more states and to dangerous sub-state actors, confidence in the restraint of the exercise of power by the most powerful is needed. The trust and cooperation needed for a global assault against such threats will not be effective if some states flaunt their disarmament obligations yet display a passion for nonproliferation.

I will highlight some of the incoherences that are creating instability in the nonproliferation regime, and a path to coherence that simultaneously reduces threat and strengthens nonproliferation efforts. These steps will also reveal as irrational the baiting of the US in international forums by countries hostile to US interests. The path to stability and security is a return to promoting the pursuit of collective security through the rule of law. In the field of nuclear weapons, this translates – among other things - into fulfilling the existing legally mandated disarmament responsibilities that remain unaddressed by the nuclear weapon states. It is simply impractical and hypocritical for some to say that nuclear weapons are morally acceptable for them to possess and even threaten to use, and evil for others to attempt to acquire.

With this in mind, allow me to address the perception, common in Washington and reflected in the Subcommittee's questions, that the NPT is failing. Looking at the NPT's good record over the past three and one-half decades, it is hard to understand the basis for the perception. It is true that three states that stayed outside the treaty from its inception in 1970 have acquired arsenals, Israel, India, and Pakistan. This is unfortunate, but it is also a problem that predated the NPT.[1]

[1] In the case of India, facing a Chinese arsenal, it made clear during NPT negotiations that a process of global elimination of nuclear weapons would be required for it to forgo the option of acquiring its own. Given that India's traditional commitment to nuclear disarmament dates back to the days of Gandhi and Nehru, I am convinced that India, as it repeatedly says in international forums, would participate in a disarmament process. The United States and India are now seeking to create an arrangement under which India would accept safeguards on civilian but not military nuclear facilities in return for access to civilian nuclear fuel and technology. While the proposed deal would partially engage India in the nonproliferation system, it undermines a core bargain of the NPT: that countries renouncing nuclear weapons are promised access to peaceful uses of nuclear technology, and would indirectly augment India's capability to

In contrast to these three, other states have changed their policies over time, renounced nuclear weapons and joined the treaty. For example, South Africa relinquished its small arsenal and Brazil and Argentina gave up weapons-relevant programs. China and France accepted the NPT disarmament obligation in joining the treaty as declared nuclear weapon states in 1992. The vast majority of states have complied with the obligation of non-acquisition. Serious efforts to acquire nuclear weapons in violation of the treaty are known to have occurred only in a handful of cases, Iraq and Libya, where programs have been reversed, and North Korea.

Thus the immediate concern over the spread of nuclear weapons comes down to two countries, admittedly problematic cases, North Korea and Iran. The North Korean problem in a way is a Cold War legacy. North Korea, as well as Iran, has also recently been the target of a U.S. policy of regime change, a policy at odds with the overriding objective of preventing nuclear weapon acquisition. It should be a matter of the highest priority to bring this chapter of history to a close and to achieve a denuclearized Korean peninsula. Whether a country is rational or irrational, direct threats to its security ensure failure in disarmament negotiations. (Please note the Gwangju Declaration issued under the leadership of former South Korean President Kim Dae-jung at a recent Nobel Peace Laureates summit, included in Appendix B.)

It is also urgent to reach a negotiated end to the ongoing confrontation with Iran over its uranium enrichment program. Should Iran achieve a weapons capability over the next five to ten years, or go further and acquire weapons at some point in the future, other states in the region will face enormous pressure to follow suit. The Weapons of Mass Destruction Commission has identified elements of a solution including a freeze on enrichment and reprocessing in the region as a step towards a WMD-free zone.[2] Other negotiated measures should be examined. Given Iran's attachment to its enrichment program for reasons for national pride if no other, a deal may regrettably need to include tightly supervised research activities located in that country. Appendix A identifies regime management reforms whose need is demonstrated by the experience with Iran.

The NPT Bargain: Recent Developments

To summarize: the NPT has a remarkable record of preventing the spread of nuclear weapons, but is now facing multiple challenges: regional crises in the Middle East and Northeast Asia; the spread of nuclear fuel cycle technology; and the imperative of progress on fulfilling disarmament commitments to create the reciprocity that will make the entire regime viable. In the remainder of my testimony, I want to concentrate on the last point. A good understanding requires a brief review of the history of the NPT.

The basic bargain underlying the text completed in 1968 was this: In exchange for a commitment from the non-nuclear weapons states not to acquire nuclear weapons and to submit

---

produce fissile materials for weapons. It is therefore unacceptable as currently framed. Minimal criteria for approval of the deal by the U.S. Congress should be entry into force of a verified Fissile Materials Cut-off Treaty and the Comprehensive Nuclear-Test-Ban Treaty as well as India's formal acceptance of the NPT obligation of good-faith negotiation of cessation of arms racing and nuclear disarmament. The need to prevent arms racing in South Asia is highlighted by recent reports that Pakistan is constructing a new plutonium production reactor and the announcement that the United States is going ahead with the long-blocked sale of F-16 fighter aircraft to Pakistan.

[2] Weapons of Mass Destruction Commission, Final Report, *Weapons of Terror: Freeing the World of Nuclear, Biological, and Chemical Arms* (Stockholm, June 1, 2006) ("*Weapons of Terror*") 71-72.

their peaceful nuclear activities to monitoring to verify compliance with the non-acquisition commitment (Article II), the NPT nuclear weapon states pledged to engage in disarmament negotiations aimed at the elimination of their nuclear arsenals (Article VI) and promised the non-nuclear-weapon parties unfettered access to peaceful nuclear technologies (e.g. nuclear power reactors and nuclear medicine; Article IV).[3] During the negotiations at its creation, several prominent non-nuclear weapons states – Germany, Italy and Sweden, for example – would not permit the treaty to be permanent and ensured that it would be reviewed after 25 years and either be extended for a fixed period, be indefinitely extended (Article X), or lapse. At the 1995 Review and Extension Conference, many states were extremely dissatisfied with the progress on disarmament of the nuclear weapons states – U.S., Russia, U.K., France, and China – and argued that they would not accept the inequity of a dual global system of nuclear haves and have-nots. They demanded and obtained a bargain. It contained a Statement of Principles and Objectives for Nuclear Nonproliferation and Disarmament,[4] which politically, if not legally, conditioned the indefinite extension of the treaty, pledging to:

- complete a Comprehensive Nuclear-Test Ban Treaty by the end of 1996
- reaffirm the commitment to pursue nuclear disarmament
- commence negotiations on a treaty to stop production of nuclear bomb materials
- encourage the creation of nuclear weapons free zones
- vigorously work to make the treaty universal by bringing in Israel, Pakistan and India
- enhance IAEA safeguards and verification capacity
- reinforce negative security assurances already given to non-weapons states against the use or threat of use of nuclear weapons against them

The bargain to extend the treaty centered on a strengthened review process with near yearly preparatory conferences and a rigorous review every five years to ensure the promise as set forth in the Principle and Objectives:

> **"The determined pursuit by the nuclear-weapon states of systematic and progressive efforts to reduce nuclear weapons globally, with the ultimate goal of eliminating those weapons."**

The 1995 re-commitment to and elaboration of the NPT nuclear disarmament obligation was reinforced by the 1996 advisory opinion of the International Court of Justice. Interpreting Article VI of the NPT and other international law, the Court unanimously held: "There exists an obligation to pursue in good faith and bring to a conclusion negotiations on nuclear disarmament in all its aspects under strict and effective international control."[5]

The 2000 Review Conference successfully reached a consensus on 13 Practical Steps to advance the commitments to lower the salience of nuclear weapons in policies, reinforce

---

[3] See Thomas Graham, Jr., *Commonsense on Weapons of Mass Destruction* (2004) 10.
[4] 1995 Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Decision 2, "Principles and Objectives for Nuclear Non-Proliferation and Disarmament," *Final Document*, Part I, NPT/CONF.1995/32, Annex: Access at http://disarmament2.un.org/wmd/npt/1995nptrevconfdocs.html.
[5] International Court of Justice, "Legality of the Threat or Use of Nuclear Weapons," Advisory Opinion of 8 July 1996, *ICJ Reports* (1996): 226, para. 105(2)F. Online at http://www.icj-cij.org/icjwww/icases/iunan/iunanframe.htm.

nonproliferation measures, and move toward the elimination of nuclear weapons. All 187 States Parties agreed on the following measures:[6]

1. Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty (CTBT): The importance and urgency of signatures and ratifications, without delay and without conditions and in accordance with constitutional processes, to achieve the early entry into force of the CTBT.
2. Holding the Line Against Testing: A moratorium on nuclear-weapon-test explosions or any other nuclear explosions pending entry into force of the CTBT.
3. Fissile Material Cut-off Treaty (FMCT): The necessity of negotiations in the Conference on Disarmament on a non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices. The Conference on Disarmament is urged to agree on a program of work which includes the immediate commencement of negotiations on such a treaty with a view to their conclusion within five years.
4. Negotiations on Nuclear Disarmament: The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body with a mandate to deal with nuclear disarmament. The Conference on Disarmament is urged to agree on a program of work which includes the immediate establishment of such a body.
5. Irreversibility: The principle of irreversibility to apply to nuclear disarmament, nuclear and other related arms control and reduction measures.
6. Commitment to Elimination: An unequivocal undertaking by the nuclear-weapon States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all States parties are committed under Article VI.
7. Verified Reductions: The early entry into force and full implementation of Strategic Arms Reduction Treaty (START) II and the conclusion of START III as soon as possible while preserving and strengthening the Anti-Ballistic Missile (ABM) Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions.
8. Control of U.S./Russian Excess Fissile Materials: The completion and implementation of the Trilateral Initiative between the United States of America, the Russian Federation and the International Atomic Energy Agency.
9. Progress by Nuclear Weapons States: Steps by all the nuclear-weapon States leading to nuclear disarmament in a way that promotes international stability, and based on the principle of undiminished security for all:
• Further efforts by the nuclear-weapon States to reduce their nuclear arsenals unilaterally.
• Increased transparency by the nuclear-weapon States with regard to the nuclear weapons capabilities and the implementation of agreements pursuant to Article VI and as a voluntary confidence-building measure to support further progress on nuclear disarmament.
• The further reduction of non-strategic nuclear weapons, based on unilateral initiatives and as an integral part of the nuclear arms reduction and disarmament process.
• Concrete agreed measures to further reduce the operational status of nuclear weapon systems. The
• A diminishing role for nuclear weapons in security policies to minimize the risk that these weapons ever be used and to facilitate the process of their total elimination.

---

[6] 2000 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, *Final Document*, Vol. I, NPT/CONF.2000/28, Part I: 14-15. Access at http://disarmament.un.org/wmd/npt/finaldoc.html. The headings in bold in the text are provided for convenience and are not part of the Final Document.

• The engagement as soon as appropriate of all the nuclear-weapon States in the process leading to the total elimination of their nuclear weapons.
10. Excess fissile materials under IAEA control: Arrangements by all nuclear weapon States to place, as soon as practicable, fissile material designated by each of them as no longer required for military purposes under International Atomic Energy Agency (IAEA) or other relevant international verification and arrangements for the disposition of such material for peaceful purposes, to ensure that such material remains permanently outside of military programs.
11. General and Complete Disarmament: Reaffirmation that the ultimate objective of the efforts of States in the disarmament process is general and complete disarmament under effective international control.
12. Reporting: Regular reports, within the framework of the NPT strengthened review process, by all States parties on the implementation of Article VI and paragraph 4 (c) of the 1995 Decision on "Principles and Objectives for Nuclear Non-Proliferation and Disarmament", and recalling the Advisory Opinion of the International Court of Justice of 8 July 1996.
13. Verifying: The further development of the verification capabilities that will be required to provide assurance of compliance with nuclear disarmament agreements for the achievement and maintenance of a nuclear-weapon-free world.

This is a comprehensive and sophisticated agenda that provides guidelines for implementation in good faith of the Article VI disarmament obligation. Not every measure is specifically required for good-faith fulfillment of Article VI, but some elements are essential. Most of the world's governments – including U.S. allies – agree that the key commitments include application of the principles of transparency, irreversibility, and verification of reduction and elimination of nuclear weapons; the necessity of a diminishing role for nuclear weapons in security policies; the reduction of the operational status of nuclear weapons systems; the entry into force of the CTBT; and negotiations on a Fissile Materials Cut-off Treaty.[7]

However, since 2000, the United States has backtracked on key commitments made in the Practical Steps, notably the CTBT; negotiation of a *verified* FMCT; the START process and the ABM Treaty. The 2002 bilateral Strategic Offensive Reductions Treaty (SORT) with Russia fails to apply the principles of transparency, verification, and irreversibility. Furthermore, it could be argued that SORT fails to diminish the role of nuclear weapons in security policies, a duty consistent with NPT pledges. The Administration's position is that the 2000 commitments are only "political," that circumstances have changed, and that compliance with Article VI is demonstrated by a four-fold reduction in the size of its arsenal since the Cold War. What is at stake here is not just a U.S.-Russian issue. The Practical Steps, adopted at the 2000 NPT Review Conference, represent an international consensus on the means for compliance with Article VI. Good faith requires at a minimum that the United States put forward alternative means for compliance. This the United States has not done. It is simply not enough to say that the U.S. and Russian arsenals have been reduced when their potential to destroy the world remains the same.

Without active U.S. leadership, hopes for progress on nuclear nonproliferation and disarmament were dashed from the outset of the 2005 Review Conference, held at the UN in May

[7] Evidence of the near-consensus is provided by UN General Assembly resolutions, notably the 2005 "Renewed Determination" resolution sponsored by Japan and nine other countries from both the North and South. It received the support of the vast majority of states, with 162 countries voting for it and only two against, the United States and India, with seven abstentions. A/RES/60/65; access at http://www.un.org/Depts/dhl/resguide/r60.htm.

2005. The states parties were unable to even generate a timely working agenda and 15 out of 20 days were squandered on procedural battles. The procedural squabbles masked real debate on substantive political differences. The capacity to make substantive progress on disarmament or nonproliferation was thwarted despite efforts of the world's best diplomats. The 2005 agenda was stalled along several fault lines. The United States would not permit the commitments already made under the treaty review process to be the basis for a working agenda and focused on the proliferation threats posed by Iran and North Korea; Egypt demanded recognition of previous commitments, in particular regarding making the treaty universal; Iran baited the nuclear weapon states on their failure to make progress on disarmament, specifically the United States for its research on modified or new-design warheads with new military capabilities. In the end, no consensus document was generated.

The U.S. unwillingness to specifically respond to demands to have its previous commitments reviewed placed the very integrity of the institution of the NPT at risk. For if commitments made yesterday need not be held to account today, why should any commitments made to the body of the NPT ever be taken seriously? Grave harm was done to international law at the 2005 Review Conference. Universally respected nonproliferation goals were not seriously negotiated, not because of a poverty of valid proposals, but because of a failure of political will. Effective means of addressing threats posed by States leaving the treaty, or, like Iran, using the treaty to develop nuclear energy with the potential for using technical advances and fissile materials to develop weapons, as well as the failure of NWS to fulfill their pledges to take practical steps toward elimination were not achieved.

All too many diplomats expressed concern that the U.S. was not taking international cooperative security under the rule of law seriously enough. In that regard one cannot overlook a statement made in the National Defense Strategy of the United States released in March 2005 by the Defense Department. In the section addressing the Changing Security Environment, there is a new definition of vulnerability, very much at odds with U.S. traditional advocacy of promoting law and diplomacy as a means of achieving security:

> ***"Our strength as a nation state will continue to be challenged by those who employ a strategy of the weak using international fora, judicial processes, and terrorism."***

Without U.S. leadership toward international fora and judicial process embodied in arms control agreements and other instruments of cooperative security, even the Heads of State of the world will remain stymied to such an extent that they will simply be unable to address proliferation issues through diplomacy. On September 13, 2005, in addressing the press regarding the September 2005 Summit at the UN of Heads of State in reference to their Final Statement, Secretary-General Kofi Annan said:

> ***"The big item missing is non-proliferation and disarmament. This is a real disgrace. We have failed twice this year: we failed at the NPT [Review Conference], and we failed now."***

This institutional deadlock has arisen from a profound failure of political will to work cooperatively. This diminution of utilization of diplomacy and law renders the reliance on force and war more likely. Proliferation is unacceptable, indeed. But is counter-proliferation, such as the war in Iraq, the first counter-proliferation war, so effective?

Looking Forward

Our task now is to look forward; while we need to understand how we got to the present juncture, the issues are simply too serious to spend too much time regretting missed opportunities. Let me now, drawing on the rich history of agenda-setting in the NPT context, identify key steps that reinforce non-proliferation and disarmament.[8]

Fissile Materials Cut-off Treaty

An FMCT would permanently end production of fissile materials, primarily separated plutonium and highly enriched uranium (HEU), for use in weapons. It would affect most directly the countries possessing nuclear weapons; NPT non-weapon states already are subject to a verified ban on diverting materials to weapons. Achievement of an FMCT would restrain arms racing involving India, China, and Pakistan, cap Israel's arsenal, and establish ceilings on other arsenals as well. A verified FMCT also would help build a stable framework for reduction and elimination of warheads and fissile material stocks; help prevent acquisition of fissile materials by terrorists; meet a key NPT commitment; and institutionalize one of the basic pillars of a nuclear weapons-free world. When negotiations on the FMCT begin, the United States should return to its long-established position that verification is imperative and feasible.[9]

Verification of reduction and elimination of nuclear arsenals

President Reagan repeatedly invoked the Russian dictum, "trust but verify." It is essential to bring the principle of verification symbolized by that dictum back to center stage. The Strategic Offensive Reductions Treaty (SORT) requires Russia and the United States each to deploy no more than 2200 strategic warheads by 2012, but includes no provisions for verification of reductions or dismantling of warheads or delivery systems, leaving each country free to retain thousands of warheads in addition to those deployed. The two countries declared that they would make use of monitoring mechanisms under START to track reductions. But START expires in 2009, and SORT does not provide any schedule for reductions prior to 2012. A high priority therefore is for the United States and Russia to agree on means to verify and make irreversible the reductions. The WMD Commission recommends negotiation of a new treaty that would further cut strategic forces and also provide for verified dismantlement of warheads withdrawn under SORT.[10] In negotiating SORT, the Bush administration rejected a detailed agreement spelling out transparency and verification measures on the grounds that Cold War-style arms control is no longer necessary and that the United States has no interest in determining together with Russia the size and composition of the two countries' arsenals. This approach overlooks that Cold War or no, the two countries need to regulate their nuclear relationship; "partnership" is not necessarily forever. Further, accounting

---

[8] See Middle Powers Initiative, "Fulfilling the NPT Bargain for Disarmament and Non-Proliferation: *Next Steps*," Briefing Paper for the Third Meeting of the Article VI Forum, Ottawa, September 28-29, 2006.

[9] The current U.S. position is that extensive verification mechanisms could compromise the core national security interests of key parties, would be so costly that many countries would be hesitant to implement them, and still would not provide high confidence in the ability to monitor compliance. However, the International Panel on Fissile Materials and the Weapons of Mass Destruction Commission have persuasively refuted the argument against verifying the FMCT. See International Panel on Fissile Materials, *Global Fissile Materials Report 2006*, pp. 43-49, online at http://www.fissilematerials.org/ipfm/site_down/ipfmreport06.pdf; *Weapons of Terror* at 104.

[10] *Weapons of Terror* at 93.

for warheads and verifying reductions is essential to achieving marginalization and elimination of nuclear weapons globally.

Verification is necessary not only for U.S. security interests. Verification also follows from the truth that the United States cannot be secure in an insecure world. Verification is needed to bring greater security to the rest of the world because the rest of the world is properly concerned with the efficacy of the disarmament and arms reduction efforts of the United States and Russia.

In working towards a nuclear weapons-free world, many tools exist for effective verification and monitoring, especially with respect to declared facilities, warheads, and fissile materials, as shown by studies this decade undertaken by the United Kingdom[11] and the U.S. National Academy of Sciences.[12] However, achieving confidence that reduction and elimination of arsenals has been implemented remains challenging, principally due to the possibility of hidden warheads, stocks of fissile materials, or capabilities. The National Academy of Sciences found that confidence would increase based on monitoring programs undertaken on a ongoing, long-term basis in an atmosphere of transparency and cooperation.[13] An implication is that verification and transparency measures need to be implemented beginning *now*, above all regarding U.S.-Russian stocks and reductions. More broadly, all nuclear-armed states must initiate processes to apply the principles of verification, transparency, and irreversibility to reduction and elimination of their arsenals. Declarations of fissile materials contained in military stocks and warheads, as recommended by the International Panel on Fissile Materials, is one of the first steps that could be taken. Countries with nuclear weapons owe the rest of the world greater proof of compliance with the disarmament obligation. To that end, verification processes should involve international monitoring.

Reduction of the operational status of nuclear forces

The United States is now estimated to have more than 1600 warheads ready for delivery within minutes of an order to do so, and Russia more than 1000 warheads similarly ready for launch.[14] It should be an absolute scandal that, every moment of every day, the two countries remain locked in a Cold War-style nuclear standoff. Non-governmental experts have explained that the standoff can be defused through separation of warheads from delivery systems and other measures that lengthen the time required for a nuclear launch, from days to weeks to months.[15] An accompanying step is the elimination of the launch-on-warning option that requires nuclear forces to be on hair-trigger alert. The U.S. and Russia should follow the admonition of George W. Bush who said when he was a candidate for president in 2000: "The United States should remove as many weapons as possible from high-alert, hair-trigger status – another unnecessary vestige of the

---

[11] "Verification of nuclear disarmament: final report on studies into the verification of nuclear warheads and their components," working paper submitted by the United Kingdom of Great Britain and Northern Ireland to the 2005 NPT Review Conference, NPT/CONF.2005/WP.1, and previous working papers cited therein. Online at http://www.reachingcriticalwill.org/legal/npt/RevCon05/wp/verification_UK.pdf.

[12] Committee on International Security and Arms Control, National Academy of Sciences, *Monitoring Nuclear Weapons and Nuclear-Explosive Materials: An Assessment of Methods and Capabilities* (2005). Online at http://www.nap.edu/catalog/11265.html.

[13] *Id.* at 219-220.

[14] See estimates by Bruce Blair, president of the Center for Defense Information, cited in John Burroughs, "The Man Who Averted Nuclear War," DisarmamentActivist.org, January 19, 2006.

[15] *E.g.*, David E. Mosher, Lowell H. Schwartz, David R. Howell, and Lynn E. David, *Beyond the Nuclear Shadow: A Phased Approach for Improving Nuclear Safety and U.S.-Russian Relations* (RAND, 2003). Online at http://www.rand.org/publications/MR/MR1666.

Cold War confrontation. Preparation for quick launch – within minutes after warning of an attack – was the rule during the era of superpower rivalry. But today, for two nations at peace, to keep so many weapons on high alert may create unacceptable risks of accidental or unauthorized launch."

While most urgent with respect to Russia and the United States, it is also vital that other weapon states, which to various degrees already maintain their forces in a de facto de-alerted condition, adopt and affirm de-alerting as an entrenched, declared policy and practice. De-alerting would help alleviate risks associated with mistakes, coups, attacks on nuclear weapons facilities, false warnings, unauthorized launches, hacking into command and control systems, and developments that cannot now be anticipated. Depending on the extent of its execution and verification, it would also lessen the moral corruption inherent in reliance on nuclear weapons for security and defense.

Comprehensive Nuclear-Test-Ban Treaty

After four decades of discussions and partial test ban agreements, negotiations on the CTBT were completed in 1996. Although 135 states have ratified the treaty, ten of the 44 states whose ratification is required for entry into force have yet to do so. Of the ten, three weapon-possessing states, the United States, China, and Israel, have signed but not ratified the treaty; two other weapon-possessing states, India and Pakistan, have not taken the first step of signing it; and North Korea, which may have weapons, has also not signed. The Preparatory Commission for the CTBT Organization has made great strides in developing the International Monitoring System, which will likely be completed in 2007. In a 2002 study, the U.S. National Academy of Sciences concluded that with a fully functioning monitoring system, clandestine nuclear explosions with a yield of more than one to two kilotons are detectable by technical means alone, and further found that any undetected low-yield explosions are not likely to significantly advance weapon development.[16] The CTBT would help to check the spread of nuclear arms and to constrain refinement of advanced arsenals; protect the environment; and have a substantial organizational and technical infrastructure. It would be an indispensable part of the architecture of a nuclear weapons-free world. Its entry into force must remain a high priority. Also crucial is maintenance of the moratorium on nuclear test explosions that has held since the 1998 tests by India and Pakistan and continued support for the Preparatory Commission.

The United States and other states possessing nuclear arsenals should also refrain from warhead research and development. It is contrary to a central purpose of the NPT and the commitment in the Practical Steps to a diminishing role for nuclear weapons in security policies, and could lead to a resumption of testing to gain confidence in the performance of new or modified warheads. The WMD Commission stated: "If research on nuclear weapons is continued, modifications should only be for purposes of safety and security -- and demonstrably so."[17] But research and development is taking place for purposes of replacing existing systems, increasing reliability over the long term, and enhancing military capabilities. France reportedly is planning the deployment of new warheads whose concept was tested in 1995-1996 on new versions of its cruise

[16] Committee on Technical Issues Related to Ratification of the Comprehensive Nuclear Test Ban Treaty, National Academy of Sciences, *Technical Issues Related to the Comprehensive Nuclear Test Ban Treaty* (Washington: National Academy Press, 2002). Access online at http://newton.nap.edu/catalog/10471.html.
[17] *Weapons of Terror* at 99.

and submarine-launched missiles.[18] Russia is developing new warheads for its most recent silo-based and mobile missiles, including one involving a maneuverable reentry vehicle.[19] The U.S. "reliable replacement warhead" program aims to yield modified or new-design warheads;[20] Britain reportedly has a similar program.[21]

Despite current Congressional intentions, the U.S. program will enable research on improvement of military capabilities. It has been described by a top official as incubating future "revitalized" scientists able to design, develop and produce a new-design warhead with "different or modified military capabilities" within three to four years of a decision to do so.[22] The Department of Defense projects that four to six replacement or refurbished warheads will be deployed in about two decades, and also envisions warhead development for next-generation delivery systems.[23] Exotic changes are not necessary to achieve significant advances in capability. Under the U.S. "lifetime extension program," the main warhead for submarine-launched missiles is being given a capacity to destroy "hard targets" with a "ground burst" by modifying a sub-system in its reentry vehicle.[24] To the extent that weapon states' modernization programs are intended to and will result only in perpetuating existing military capabilities, planning and preparing for maintenance of nuclear forces for decades to come is contrary to the obligation to work in good faith for their elimination.

A diminishing role of nuclear weapons in security policies and strengthened assurances of non-use of nuclear weapons against non-weapon states

The 2000 NPT Review Conference rightly and wisely recognized that reducing the role of nuclear weapons in security postures makes the world safer now and facilitates progress in reduction and elimination of nuclear arsenals. With the exception of China, which has maintained its existing policy of no first use, none of the weapon states has complied with this commitment. France earlier this year signaled that nuclear weapons could be used against a state responsible for a large-scale terrorist attack on France.[25] The United States claims to be in compliance with the commitment due to development of non-nuclear means for striking enemy targets and defending against attacks (e.g., anti-missile systems). However, the increased emphasis in recent years on options for use of nuclear weapons in a widening range of circumstances makes nonsense of this claim.

---

[18] Bruno Tertrais, "Nuclear policy: France stands alone," Bulletin of the Atomic Scientists (July/August 2004) 48-55.
[19] Robert S. Norris and Hans M. Kristensen, NRDC Nuclear Notebook, "Russian Nuclear Forces, 2006," Bulletin of the Atomic Scientists (March/April 2006) 64-67.
[20] Jonathan Medalia, Congressional Research Service, *Nuclear Weapons: The Reliable Replacement Warhead Program* (updated March 9, 2006); Amb. Linton Brooks, Administrator, National Nuclear Security Administration, "The Future of the U.S. Nuclear Weapons Stockpile," 2006 Arms Control Association Panel Discussion, January 25, 2006. Online at http://www.armscontrol.org/pdf/20060125_brooks.pdf.
[21] Michael Smith, "Focus: Britain's secret nuclear blueprint," The Sunday Times, March 12, 2006.
[22] Brooks, *supra*.
[23] Office of the Deputy Assistant to the Secretary of Defense for Nuclear Matters, "Stockpile Transformation," http://www.acq.osd.mil/ncbdp/nm/stockpiletransformation.html (accessed September 16, 2006).
[24] Robert S. Norris and Hans M. Kristensen, NRDC Nuclear Notebook, "U.S. Nuclear Forces, 2006," Bulletin of the Atomic Scientists (January/February 2006) 68-71; Greg Mello, "That Old Designing Fever, Bulletin of the Atomic Scientists (January/February 2000) 51-57.
[25] In a January 19, 2006 speech, President Jacques Chirac said: "[N]uclear deterrence is not intended to deter fanatical terrorists. Yet, the leaders of States who would use terrorist means against us, as well as those who would consider using, in one way or another, weapons of mass destruction, must understand that they would lay themselves open to a firm and adapted response on our part. And this response could be a conventional one. It could also be of a different kind." Online at http://www.acronym.org.uk/docs/0601/doc06.htm.

The classified but leaked 2001 Department of Defense Nuclear Posture Review (NPR) states that nuclear weapons will be "integrated with new nonnuclear strategic capabilities" including advanced conventional precision-guided munitions,[26] suggesting a view of nuclear weapons as "simply another weapon."[27] It plans for an enlarged range of circumstances under which nuclear weapons could be used, notably against non-nuclear attacks or threats. It refers to contingency planning for use of nuclear weapons against Russia, China, North Korea, Iraq, Iran, Syria, and Libya, and identifies possible "immediate contingencies" requiring U.S. nuclear use including "a North Korean attack on South Korea, or a military confrontation over the status of Taiwan." The NPR also states that nuclear weapons "could be employed against targets able to withstand nonnuclear attack, (for example, deep underground bunkers or bio-weapon facilities)," and contemplates their use in response to a biological or chemical attack.[28] Finally, the NPR refers to nuclear use in response to "surprising military developments" and "unexpected contingencies."[29] Those new catch-all categories are virtually without limit.

The NPR was reinforced in December 2002 by a presidentially approved document, the National Strategy to Combat Weapons of Mass Destruction. It states that the United States "reserves the right to respond with overwhelming force - including through resort to all of our options - to the use of WMD [weapons of mass destruction] against the United States" and its "friends and allies."[30] The reference to "all of our options" is an invocation of the nuclear option. The document also identifies preemptive military action as one means of responding to states' acquisition of NBC weapons or capabilities, and does not exclude U.S. use of nuclear weapons in a preemptive attack. Subsequent military planning documents repeat and elaborate the formulations found in the NPR, with allusions to the option of nuclear preemptive use, and state plainly, as the National Strategy had implicitly, that nuclear weapons may be used in response to a chemical or biological attack.[31]

Recent doctrinal statements are not unprecedented. In the 1990s, as the U.S. nuclear establishment sought to establish new missions in the aftermath of the Cold War, references to options for use of nuclear weapons in "counterproliferation" missions in response to biological, chemical, and nuclear weapons use and capabilities surfaced in a variety of governmental settings.[32]

---

[26] "Nuclear Posture Review [Excerpts] Submitted to Congress on 31 December 2001" ("NPR Excerpts"). Online at http://www.globalsecurity.org/wmd/library/policy/dod/npr.htm.

[27] Joseph Cirincione, Director, Non-Proliferation Project, Carnegie Endowment for International Peace, Testimony to the Senate Committee on Foreign Relations, May 16, 2002.

[28] NPR Excerpts; William M. Arkin, Commentary, "Secret Plan Outlines the Unthinkable," *Los Angeles Times*, March 10, 2002; Walter Pincus, "U.S. Nuclear Arms Stance Modified by Policy Study," *Washington Post*, March 23, 2002. Pincus wrote that the NPR "would give U.S. presidents the option of conducting a preemptive strike with precision-guided conventional bombs or nuclear weapons" against "hostile countries that threaten to use weapons of mass destruction."

[29] NPR Excerpts.

[30] *National Strategy to Combat Weapons of Mass Destruction* (December 2002) 3.

[31] *E.g.*, U.S. Department of Defense, *Strategic Deterrence Joint Operating Concept* (February 2004) 32-33. Online at http://www.dtic.mil/jointvision/sd_joc_v1.doc. "Joint Operating Concepts" are part of a set of planning documents intended "to assist in the development of enhanced joint military capabilities needed to protect and advance U.S. interests." The goal is "to realize the Chairman's vision of achieving Full Spectrum Dominance by the Joint Force." *Id.* at 1.

[32] "The Role of Nuclear Weapons in the New World Order," Briefing by Thomas C. Reed, Chairman of the Joint Strategic Target Planning Staff Strategic Advisory Group Deterrence Study Group, October 10, 1991, p.8; Department of the Navy, Office of the Deputy Chief of Naval Operations for Plans, Policy and Operations, *Strutplan 2010 Phase II, Final Report* (June 1992), V.I, pp.92-93, obtained through the Freedom of Information Act by the Greenpeace Nuclear

However, the recent statements are different in three important respects. First, the authoritativeness is heightened, by a presidential signature on a public document in the case of the National Strategy, and by a defense secretary's signature in the case of the Nuclear Posture Review. Second, ambiguity has been lessened and effectively removed about whether the United States maintains the option of a nuclear response to use of chemical and biological weapons as well as nuclear weapons, and the possibility of nuclear preemptive use has been given a higher profile. Third, the NPR's reference to "surprising military developments" significantly widened, at least theoretically, the circumstances for U.S. nuclear use.

Thus far from diminishing the role of nuclear weapons in security policies, as called for by the NPT 13 steps, the United States is expanding options for nuclear use. This point was illustrated chillingly this year by credible media reports that, until the Joint Chiefs of Staff insisted on their removal, U.S. civilian officials at the highest level wanted to keep nuclear use options in plans for counter-proliferation strikes on Iran.[33] During the Cold War, nuclear weapons were rationalized by the policy of mutually assured destruction, a policy paradoxically designed to ensure non-use. Now, there is a new emphasis on their war-fighting role. It is morally comprehensible, though not morally acceptable, certainly as a long-term policy, that nuclear weapons would be retained to prevent their use by another country. It is not morally intelligible to project the use of nuclear weapons in a wide range of circumstances, not limited to possible response to another country's nuclear use. Nor is it wise, because it may one day lead to the actual use of nuclear weapons, and because it enhances their political value, and therefore encourages their spread.

The United States should therefore reaffirm the assurances of non-use of nuclear weapons previously given to NPT states parties which have renounced the possession of nuclear arms, and support rather than oppose codification of the assurances in a treaty. The logic is unassailable; countries that have foresworn nuclear weapons are entitled to guarantees of non-use of the weapons against them. Furthermore, the United States should adopt a declared policy of no first use of nuclear weapons.

Free Seas program, 1994; United States Joint Chiefs of Staff, *Doctrine for Joint Theater Nuclear Operations*, Joint Pub 3-12.1 (February 1996), pp. viii, I-3; White House, Press Briefing by Robert Bell, April 11, 1996, cited in George Bunn, "The Legal Status of U.S. Negative Security Assurances to Non-Nuclear Weapon States," The Nonproliferation Review (Spring-Summer 1997) 1, at 11, fn. 116; Robert Bell, "Strategic Agreements and the CTB Treaty: Striking the Right Balance", 28 Arms Control Today (No. 1, January/February 1998) 3, at 6, 9; R. Jeffrey Smith, "Clinton Directive Changes Strategy On Nuclear Arms," Washington Post, December 7, 1997; Edward Warner III, Assistant Secretary of Defense (Strategy and Threat Reduction), prepared statement before the Strategic Forces Subcommittee, Senate Armed Services Committee, Hearing on Nuclear Deterrence, March 31, 1998, at 9, quoted in J. Medalia, "Nuclear Weapons Production Capability Issues," Congressional Research Service Report to Congress (June 1998), at CRS-14; Stephen I. Schwartz, "Miscalculated Ambiguity: US Policy on the Use and Threat of Use of Nuclear Weapons," Disarmament Diplomacy (February 1998, No. 23) 10, at 11, available at www.acronym.org.uk; "Nuclear Operations," Air Force Doctrine Document 2-1.5 (15 July 1998), at 8-9. The first three items are cited and discussed in Andrew Lichterman, Western States Information Bulletin, *Sliding Towards The Brink: More Useable Nuclear Weapons and the Dangerous Illusions of High-Tech War* (March 2003) 8-9, online at http://wslfweb.org/docs/nucpreppdf.pdf.

[33] Seymour Hersh, "The Iran Plans: Would President Bush go to war to stop Tehran from getting the bomb?" The New Yorker, April 17, 2006; Peter Baker, Dafna Linzer and Thomas E. Ricks, "U.S. Is Studying Military Strike Options on Iran: Any Mix of Tact, Threats Alarms Critics," Washington Post, April 9, 2006; Seymour Hersh, "Last Stand: The military's problem with the president's Iran policy," The New Yorker, July 10, 2006.

Conclusion: Disarmament as the compass point

Implementation of the above-outlined priority measures and the regime-management reforms outlined in the Appendix I should take place in the context of a visible intent to achieve a nuclear weapons-free world. The priority measures are valuable in and of themselves. They decrease risks of use, diminish the access of terrorists to catastrophic weapons and materials to build them, raise barriers to acquisition by additional states, and generate support for strengthening the nonproliferation side of the regime and resolving regional crises. Moreover, the measures pass key tests: they enhance security generally; they do not diminish the security of any state; they reinforce the NPT and enhance the rule of law; they make the world safer now; they move the world towards elimination of nuclear weapons.

To conclude: Building an effective nonproliferation/disarmament regime is complex and challenging. The underlying principle, however, is simple, and serves as a guide to the work. Nuclear weapons are morally, legally, and practically unacceptable. As my mentor, the late Senator Alan Cranston, used to say, "Nuclear weapons are unworthy of civilization." Perpetual nuclear apartheid – some countries have the weapons, others are forbidden to have them – is unsustainable. Both practical and moral coherence requires application of a universal standard, a golden rule: no country may possess weapons capable of inflicting catastrophic, city-destroying or even civilization-ending, damage. If we meet the challenge of implementing this rule, we will pass down to our children and grandchildren and all succeeding generations a world preserving the advances made by hundreds of previous generations, including our own.

ACKNOWLEDGEMENT:
I gratefully acknowledge the assistance in preparing this testimony of Dr. John Burroughs, Executive Director, Lawyers' Committee on Nuclear Policy; Ambassador Robert T. Grey, Jr., Director of the Bipartisan Security Group; Dr. Craig Eisendrath; and James Wurst, Program Director, Middle Powers Initiative/Global Security Institute.

Appendix A: Needed Nonproliferation Reforms

Experience since the Cold War with preventing proliferation, in particular with regard to North Korea and Iran, teaches three lessons about strengthening the regime for the future.

First, material and ongoing violations of safeguards reporting requirements should result in forfeiture of the right to acquire nuclear fuel production technology under Article IV of the NPT. The United States made this point in NPT meetings with respect to Iran, but it has never been squarely addressed by the IAEA Board of Governors, NPT states parties, or the Security Council.

Second, institutional reform is needed to create effective compliance assessment mechanisms. There is no body empowered to assess whether a state is breaching its NPT obligation by seeking to acquire nuclear weapons nor by failing to comply with the commitment to good faith negotiations on disarmament. Under its Statute, the IAEA has the important but limited task of ascertaining whether nuclear materials have been diverted to a weapons program, which it has *not* found to be the case in Iran. But there are other aspects to a weapons program, for example warhead design and missile development. What is needed is an NPT governing body which together with the IAEA, perhaps also drawing on UNMOVIC-type resources, has this responsibility, as well as the responsibility of monitoring reduction and elimination of existing arsenals. There have been multiple proposals to strengthen NPT institutional capability, by adding a secretariat, a governing council, and/or empowered annual meetings of states parties. The proposals have come from responsible states like Ireland and Canada and from the Weapons of Mass Destruction Commission,[34] and have been advanced as well by Jayantha Dhanapala, chair of the 1995 Review and Extension Conference and former UN Under Secretary-General for Disarmament Affairs.[35] So far the United States has shown no interest.

Third, policy tools work best when integrated into the global system. Effective nonproliferation and disarmament requires a robust multilateralism based upon global norms. This is not to say that policy tools involving international cooperation short of a global regime have no place. The tools include export control arrangements; the network of states (the Proliferation Security Initiative) prepared to interdict illicit shipments of nuclear, biological and chemical (NBC) weapon-related equipment, materials, and delivery systems; and the G-8 program building on the Cooperative Threat Reduction program aimed at securing NBC weapons and materials in Russia and other countries. But their effectiveness can be optimized by finding ways to link them to the global regime. An example of movement towards such integration is Security Council resolution 1540, which requires all states to take steps to prevent acquisition of and trafficking in NBC weapon-related items by states, terrorists and other non-state actors. Among other things, the resolution requires all states to appropriately regulate exports. It is a step toward universalizing nuclear weapons control by means of law established by the Security Council. The Bush administration is to be commended for its leadership in the solidification of global law through resolution 1540. But I must register two cautions. The first is that, as with other nonproliferation measures, the extent of compliance will depend crucially on how well the states possessing nuclear arsenals do in fulfilling their side of the bargain. The second is that given the limited membership of the Security Council and its control by the United States and other permanent members, all

---

[34] *Weapons of Terror* at 63-66.

[35] See Jayantha Dhanapala with Randy Rydell, *Multilateral Diplomacy and the NPT: An Insider's Account* (UNIDIR, 2005) 129-132.

possessing nuclear weapons, legitimacy and in-depth commitment will best be achieved by subsequent codification of 1540 and similar requirements in multilateral treaties.

Appendix B: Underlying Practical and Moral Concerns

> **"The unleashing of power of the atom bomb has changed everything except our mode of thinking, and thus we head toward unparalleled catastrophes."** ***Albert Einstein***
>
> **"If men can develop weapons that are so terrifying as to make the thought of global war include almost a sentence of suicide, you would think that man's intelligence and his comprehension ... would include also his ability to find a peaceful solution."** ***President Dwight D. Eisenhower***
>
> **We must and we can change our course for life is precious.**

General George Lee Butler, former Commander-in-Chief of U.S. Strategic Air Command (1991-92) and U.S. Strategic Command (1992-94), was responsible for all nuclear forces of the American Air Force and Navy. His insights should be of paramount concern to all Members of Congress:

'Despite all the evidence, we have yet to fully grasp the monstrous effect of these weapons, that the consequences of their use defy reason, transcending time and space, poisoning the Earth and deforming its inhabitants.' Nuclear weapons are 'inherently dangerous, hugely expensive and militarily inefficient.'

General Butler stated that "accepting nuclear weapons as the ultimate arbiter of conflict condemns the world to live under a dark cloud of perpetual anxiety. Worse, it codifies mankind's most murderous instincts as an acceptable resort when other options for resolving conflict fail." He added, 'I have spent years studying nuclear weapons effects...have investigated a distressing array of accidents and incidents involving strategic weapons and forces... I came away from that experience deeply troubled by what I see as the burden of building and maintaining nuclear arsenals ... the grotesquely destructive war plans, the daily operational risks, and the constant prospect of a crisis that would hold the fate of entire societies at risk"[36]

He stated his profound concern regarding how little high-level scrutiny (the U.S. nuclear war plan) had received over the years, and by how readily his military colleagues threw up

---

[36] CHARLES J. MOXLEY JR., NUCLEAR WEAPONS AND INTERNATIONAL LAW IN THE POST COLD WAR WORLD, 535 (footnote omitted) (reprinted from Otto Kreisher, *Retired Generals Urge End to Nuclear Arsenal*, THE SAN DIEGO UNION-TRIB., Dec.5, 1996, at A-1.); See, Jonathan Granoff, *Nuclear Weapons, Ethics, Morals, and Law*, Volume 2000 Number 4, Bringham Young University Law Review, 1417 (2000)

their hands and rolled their eyes at the grim challenge of converting mathematical estimates of the destructiveness of nuclear arms and the resilience of Soviet structures into dry statistical formulas for nuclear war. (reprinted from R. Jeffrey Smith, *Ex-Commander of Nukes Wants to Scrap Them, A Believer No More*, THE SACRAMENTO BEE, Mar. 29, 1998. See also R. Jeffrey Smith, *The Dissenter*, THE WASHINGTON POST, Dec. 7, 1997, at Magazine, W18.)

General Butler had a unique comprehension of how little the matter has been understood in the chambers of decision making:

> "'It was all Alice-in-Wonderland stuff,' General Butler says. The targeting data and other details of the war plan, which are written in an almost unfathomable million lines of computer software code, were typically reduced by military briefers to between 60 and 100 slides that could be presented in an hour or so to the handful of senior U.S. officials who were cleared to hear it: 'Generally, no one at the briefing wanted to ask questions because they didn't want to embarrass themselves. It was about as unsatisfactory as could be imagined for that subject matter. The truth is that the President only had a superficial understanding' of what would happen in a nuclear war, Butler says. Congress knew even less because no lawmaker has ever had access to the war plan, and most academics could only make ill-informed guesses."[37]

We remain in a state of incomplete comprehension largely because the magnitude of the destructive capacity of a nuclear bomb is simply too great to imagine. Moreover, the illogic of this improved means to an unimproved end challenges our fundamental concepts of what we are willing to do to millions of innocent people to protect our own creation, the State.

> The UN in its 1991 report found the '(n)uclear weapons represent a historically new form of weaponry with unparalleled destructive potential. A single large nuclear weapon could release explosive power comparable to all the energy released from the conventional weapons used in all past wars.'[38]
>
> Experts have estimated that the total conventional bombs dropped by United States Air Force amounted to only two megatons for the entirety of WWII, the yield of one or two ordinary nuclear bombs today. [39]

---

[37] See id. at n 27 (quoting R. Jeffery Smith, *Ex-Commander of Nukes Wants to Scrap Them, A Believer No More*, SACRAMENTO BEE, Mar. 9, 1998; *see also* R. Jeffrey Smith, *The Dissenter*, WASH. POST MAG., Dec. 7, 1997, at W18).

[38] MOXLEY, *supra* note 1, at 398 (quoting WOLRD HEALTH ORGANIZATION, UNITED NATIONS, EFFECTS OF NUCLEAR WAR ON HEALTH AND HEALTH SERVICES 7 (2d ed. 1987); *see also*, UN DEPARTMENT FOR DISARMAMENT AFFAIRS, NUCLEAR WEAPONS: A COMPREHENSIVE STUDY 6, at 7, (1991).

[39] See Center for Defense Information, Nuclear War Quotations 39, (hereinafter NUCLEAR WAR QUOTATIONS) (quoting Ray S. Cline *in* WORLD POWER ASSESSMENT 58 (1975).

What exactly does one nuclear bomb do? Former Director of Central Intelligence Stansfield Turner offers his brief description:

> The fireball created by a nuclear explosion will be much hotter than the surface of the sun for fractions of a second and will radiate light and heat, as do all objects of very high temperature. Because the fireball is so hot and close to the earth, it will deliver enormous amounts of heat and light to the terrain surrounding the detonation point, and it will be hundreds or thousands of times brighter than the sun at noon. If the fireball is created by the detonation of a 1-MT (megaton) nuclear weapon, for example, within roughly eight- to nine-tenths of a second each section of its surface will be radiating about three times as much heat and light as a comparable area of the sun itself. The intense flash of light and heat from the explosion of a 550-KT weapon can carbonize exposed skin and cause clothing to ignite. At a range of three miles surfaces would fulminate and recoil as they emanate flames. Particles of sand would explode like pieces of popcorn from the rapid heating of the fireball. At 3.5 miles, where the blast pressure would be 5psi, the fireball could ignite clothing on people, curtains and upholstery in homes and offices, and rubber tires on cars. At four miles, it could blister aluminum surfaces, and at six to seven miles it could still set fire to dry leaves and grass. This flash of incredibly intense, nuclear-driven sunlight could simultaneously set an uncountable number of fires over an area of close to 100 square miles.[40]

What is the destructive effect of this blast? In his landmark opinion for the International Court of Justice, Judge Christopher Weeramantry made a short list:

> Nuclear weapons
> 1. cause death and destruction; induced cancers, leukemia, keloids and related afflictions;
> 2. cause gastrointestinal, cardiovascular and related afflictions; continued for decades after their use to induce the health related problems mentioned above;
> 3. damage the environmental rights of future generations;
> 4. cause congenital deformities, mental retardation and genetic damage;
> 5. carry the potential to cause a nuclear winter;
> 6. contaminate and destroy the food chain;
> 7. imperil the eco-system;
> 8. produce lethal levels of heat and blast;
> 9. produce radiation and radioactive fallout;
> 10. produce a disruptive electromagnetic pulse;
> 11. produce social disintegration;
> 12. imperil all civilizations;
> 13. threaten human survival;
> 14. wreak cultural devastation;
> 15. span a time range of thousands of years;
> 16. threaten all life on the planet;
> 17. irreversibly damage the rights of future generations;

[40] STANSFIELD TURNER, CAGING THE NUCLEAR GENIE , app. A 127-128 (1997).

18. exterminate civilian population;
19. damage neighboring states;
20. produce psychological stress and fear syndromes--as no other weapons do.[41]

What does this mean in terms of human experience? Please read this bearing in mind that the current arsenals represent nearly one million times the horror that overtook Hiroshima. Takashi Hiroaka, Mayor of Hiroshima testified before the International Court of Justice:

> 'The atomic bombs dropped on Hiroshima and Nagasaki shattered all war precedent. The mind-numbing damage these nuclear weapons wrought shook the foundations of human existence...
> The dropping of the nuclear weapons is a problem that must be addressed globally. History is written by the victors. Thus, the heinous massacre that was Hiroshima has been handed down to us as a perfectly justified act of war. As a result, for over 50 years we have never directly confronted the full implications of this horrifying act for the future of the human race. Hence, we are still forced to live under the enormous threat of nuclear weapons...
> Beneath the atomic bomb's monstrous mushroom cloud, human skin was burned raw. Crying for water, human beings died in desperate agony. With thoughts of these victims as the starting point, it is incumbent upon us to think about the nuclear age and the relationship between human beings and nuclear weapons...
> The unique characteristic of the atomic bombing was that the enormous destruction as instantaneous and universal. Old, young, male, female, soldier, civilian – the killing was utterly indiscriminate. The entire city was exposed to the compound and devastating effects of thermal rays, shock wave blast, and radiation...
> Above all, we must focus on the fact that the human misery caused by the atomic bomb is different from that caused by conventional weapons. (H)uman bodies were burned by the thermal rays and high-temperature fires, broken and lacerated by the blast, and insidiously attacked by radiation. These forms of damage compounded and amplified each other, and the name given to the combination was "A-bomb disease..."
> (T)he bomb reduced Hiroshima to an inhuman state utterly beyond human ability to express or imagine. I feel frustrated at not being able to express this completely in my testimony about the tragedy of the atomic bombing...'
> It is clear that the use of nuclear weapons, which cause indiscriminate mass murder that leaves survivors to suffer for decades, is a violation of international law." [42]

---

[41] Threat or Use of Nuclear Weapons, 1996 I.C.J. at 454 (separate opinion of Judge Weeramantry)

[42] JOHN BURROUGHS, THE (IL)LEGALITY OF THE THREAT OR USE OF NUCLEAR WEAPONS, 90-91(1997); see also, DOUGLAS ROCHE, BEYOND HIROSHIMA (2005), THE ULTIMATE EVIL (1997), and AN UNACCEPTABLE RISK (1995) for thorough expositions of the relationship between the threat of nuclear weapons and international legal and diplomatic affairs.

During the Cold War the deployment of the arsenals of the Soviet Union and the US were designed to ensure nonuse. Not only does it seem that nuclear weapons challenge our capacity of using law and morality to guide our conduct but also reason as well. We have built a device which renders us less secure the more we perfect its effectiveness. Thus, George Kennan, a key figure in developing the architecture of the Cold War said about nuclear weapons:

:

> "The readiness to use nuclear weapons against other human beings – against people we do not know, whom we have never seen, and whose guilt or innocence is not for us to establish – and, in doing so, to place in jeopardy the natural structure upon which all civilization rests, as though the safety and perceived interests of our own generation were more important than everything that has taken place or could take place in civilization: this is nothing less than a presumption, a blasphemy, an indignity – an indignity of monstrous dimensions – offered to God!"[43]
>
> The perverse logic of the Cold War based on having enough destructive capacity at the ready to make a use unthinkable makes no sense at all today. The hair trigger deployments of thousands of warheads between Russia and US renders logic impotent since we are not even enemies. Yet, as if we were acting rationally, we keep these arsenals precisely calibrated and well organized thus efficiently risking the destruction of all human life on the planet.
>
> I would now like to offer a simple legal test that the National Academy has given to these devices followed by the relevant excerpts from statements of recent years of the Nobel Peace Laureates who have gathered at a Summit in Rome, Italy and then close with the entire most recent Nobel Peace Laureates Statement from Gwangju, Korea of June 2006.[44]

My hope is to instill a greater sense of the moral aspect of this issue into our public discourse. At root we are addressing whether this use of the gift of science and technology solves any problem as great as the problem this use has created. I would contend that practically, legally, morally, and militarily it has not. Thus the argument to set the compass point toward abolition is well founded.

The Committee on International Security and Arms Control of the U.S. National Academy of Sciences succinctly summed up the legal analysis of the current posture of international law:

> "(T)he International Court of Justice agreed that the threat or use of nuclear weapons is strictly limited by generally accepted laws and humanitarian principles that restrict the use of force. Accordingly, any threat or use of nuclear weapons must be limited to , and necessary for, self-defense; it must not be targeted at civilians, and be capable of distinguishing between civilian and military targets; and it must not cause unnecessary suffering to combatants, or harm greater than

---

[43] GEORGE F. KENNAN, THE NUCLEAR DELUSION 206-207 (1982).

[44] Report on Nobel Laureate organization the International Peace Bureau delegations to the Nobel Peace Laureate Summits lists the Laureate participants and the statements in full, < http://www.gsinstitute.org/docs/IPB_NobelSummitReports.pdf>; see also the official web site of the Summits at <http://www.nobelforpeace-summit.org >

> that unavoidable to achieve military objectives. In the Committee's view, the inherent destructiveness of nuclear weapons, combined with the unavoidable risk that even the most restricted use of such weapons would escalate to broader attacks, makes it extremely unlikely that any contemplated threat or use of nuclear weapons would meet such criteria." [45]

Judge Ranjeva, of the ICJ, stated what should be axiomatic in addressing world threats, and by that I mean, threats that impact on not just United States' interests but the entire planet and generations yet unborn:

> "On the great issues of mankind the requirements of positive law and ethics make common cause, and nuclear weapons, because of their destructive effects, are one such issue." [46]

In a world with many different religions and cultures there are few places where we can look for an expression of global ethical principles and norms. Many would agree that the Nobel Peace Laureates are a sufficiently distinguished group whose opinions should not be lightly ignored. Below are several quotes from Summits of this distinguished group on the subject of nuclear weapons.

From the 2005 Rome Final Statement:

While expressing regret that some African nations spend too much on conventional weapons, we commend the entire African continent for becoming a nuclear weapons free zone. It is absurd that the nations with nuclear weapons refuse even to pledge not to use nuclear weapons against all nuclear weapons free nations.

As in past years, we reiterate our insistence that the existence of nuclear weapons is morally unacceptable and condemn military doctrines allowing their use. We demand progress by the nuclear weapons states in fulfilling their disarmament obligations under the Nuclear Non-Proliferation Treaty. The corrosion of the non-proliferation regime is a danger to world peace.

From the 2004 Rome Final Statement:

Preserving and strengthening the Nuclear Non-Proliferation Treaty. We reject double standards and emphasize the legal responsibility of nuclear weapons states to work to eliminate nuclear weapons. We call for continuation of the moratorium on nuclear testing pending entry into force of the Comprehensive Test Ban Treaty, and for accelerating the process of verifiable and irreversible nuclear arms reduction. We are gravely alarmed by the creation of new, usable nuclear weapons and call for rejection of doctrines that view nuclear weapons as legitimate means of war-fighting and threat pre-emption.

From 2003 Rome Final Statement:

---

[45] JOHN BURROUGHS, THE LEGAL FRAMEWORK FOR NON-USE AND ELIMINATION OF NUCLEAR WEAPONS, quoted at p. 6 (2006), <http://www.lcnp.org/disarmament/Gpeacebrfpaper.pdf>

[46] Threat or Use of Nuclear Weapons 1996 ICJ 296 (separate opinion of Judge Ranjeva).

The threat of weapons of mass destruction remains with us. We call for an immediate end to the newly resurgent arms race, which is being fueled by a failure to universally ratify a treaty banning nuclear testing, and by doctrines that lower the threshold of use and promote the creation of new nuclear weapons. This is particularly dangerous when coupled with the doctrine of pre-emption.

For some to say that nuclear weapons are good for them but not for others is simply not sustainable. The failure
of the nuclear weapons states to abide by their legal pledge to negotiate the elimination of nuclear weapon, contained in the Nuclear Non-Proliferation Treaty, is the greatest stimulus to their proliferation.

Nuclear weapons are immoral and we call for their universal legal prohibition. They must be eliminated before they eliminate humanity.

For a list of the Nobel Peace Laureates who have endorsed these strong statements, please go to http://www.nobelforpeace-summit.org/index-en.asp

And most recently the following was issued at the Summit in Gwangju, Korea, which is quoted here in its entirety because of its relevance to the Korean issue:

Gwangju Final Declaration 2006

In Gwangju, the birthplace of modern Korean democracy, we, the Nobel Peace laureates, have reaffirmed our historical responsibility and the hope of human kind to achieve democracy and peace on the Korean Peninsula and the whole world. "The 2006 Gwangju Summit of Nobel Peace Laureates" was held to remember the May 18 Democratic Movement that spurred the democratization of Korea in 1980, and to uphold the spirit of the June 15 South-North Joint Declaration that opened up the way for peace on the Korean Peninsula in 2000. We have gathered in the spirit of the two global events that have occurred on the Korean Peninsula. We will search for, and promote, stable ways to bring lasting peace on the Peninsula and to spread democracy in East Asia. The Summit started from the universal insight discovered over the course of human history that democracy and human rights bring peace; and peace in turn strengthens democracy and human rights. This is not only the spirit of the Nobel Peace Prize but also the purpose of life and the course of action for the Nobel Peace laureates.

The shadows of the Cold War still linger on the Korean Peninsula and the tension and confrontation have become a huge threat to the peace and democracy of not only the Peninsula and East Asia but also the world as a whole. Meanwhile, there are still many places in Asia where democracy has not yet developed and human rights are being jeopardized. This shows us that trees of democracy and peace do not grow easily and that without endless efforts these trees will not grow and sometimes even wither. In this respect, the historical responsibility and common action of the Nobel Peace laureates are all the more crucial. Based upon our strong friendship and common philosophy, we will go to areas where democracy and peace are under threat, wherever that may be, and do our best to fulfill our role and responsibility.

Our practical actions aspire to affirm universal shared values such as compassion, love, justice,

forgiveness and generosity.

Based on such goal and philosophy, we, the Nobel Peace laureates, pledge and propose the following:

Global Issues

1. *All countries around the world must endlessly strive to further develop democracy and peace, and this must be pursued not by use of force or violence but through peaceful means such as non-violence, forgiveness and reconciliation.*
2. *There are still many areas not only in Asia but in all parts of the world where democracy and human rights are under oppression. International cooperation, and multilateralism based on the rule of law must be strengthened. Not only political human rights, but also the more basic social human rights such as the right to eat, to receive medical treatment, to be educated and to live in peace must be achieved.*
3. *Without rooting out poverty we cannot expect development in democracy and human rights, nor can we end terrorism and war. Along with humanitarian emergency aid, the international community needs long–term efforts to reduce poverty and bring sustainable economic development. We urge the G8 leaders meeting in St Petersburg on July 15th to fulfill the Millennium Development Goals for Africa and its peoples, especially through debt cancellation.*
4. *To ensure a sustainable future we call for: a. Recognition and full implementation of women's rights and the full implementation of Security Council Resolution 1325 on women's role in the peace process; b. Promotion of a culture of peace where security is defined to always focus on meeting human needs with substantial reductions in military spending thus freeing up enormous resources; c. Recognition in action not just rhetoric that without a healthy environment the human community cannot survive; d. Enhancing cooperation amongst people in addressing our collective needs through rendering the institution of war as obsolete as apartheid, slavery and colonization.*
5. *For the resolution to international disputes and for world peace, the active role of the United Nations must be respected. All countries should do their utmost to closely cooperate with the UN to resolve current global disputes and promote democracy through peaceful diplomatic measures.*

Korean Issues

1. *The May 18 Democratic Movement and the signing of the June 15 South-North Joint Declaration were historic events contributing to democracy and peace not only on the Korean Peninsula but in Asia and the whole world. We, the Nobel Peace laureates, will do our best to uphold the vision and philosophy of both events.*
2. *The Korean Peninsula remains the only place on earth where the darkest shadows of the Cold War still linger. We call for more active cooperation and efforts of the two Koreas, and also the concerned nations such as the United States, Japan, China and Russia, and international organizations such as the United Nations to pursue inter-Korean reconciliation and cooperation and end the state of war on the Peninsula to bring lasting peace in the region. As a modest step to enhance such cooperation, we advocate conversion*

of the DMZ into a de-mined Peace Park, an environmental reserve for the benefit of all people.

3. *The tension and confrontation surrounding the North Korean nuclear issue must be resolved. We urge all parties to resume the Six Party Talks in the spirit of mutual respect and equality. In order to advance this important process, we expect that the DPRK will completely abandon its nuclear weapons policy and accept international inspections. We also call for the US to end financial and economic sanctions on the DPRK and offer security guarantees. All parties should avoid any further obstacles to progress. All parties should fully implement the "Beijing Joint Statement" of September 19, 2005. The Six Parties should cooperate to ensure safe, peaceful energy security for the DPRK and implement economic cooperation in the fields of energy, trade and investment, bilaterally and multilaterally. We urge the United Nations and all nations involved to pursue inter-Korean reconciliation and cooperation and end the state of war on the Peninsula to bring lasting peace in the region.*
4. *We propose that the six-party talks should not be a temporary meeting to resolve the North Korean nuclear issue and bring lasting peace on the Peninsula but be developed into a permanent multilateral organization to promote peace and democracy on the Korean Peninsula.*

Nuclear weapons

1. ***If we are to have stability we must have justice. This means the same rules apply to all. Where this principle is violated disaster is risked. In this regard we point to the failure of the nuclear weapons states to fulfill their bargain contained in the Nuclear Nonproliferation Treaty to negotiate the universal elimination of nuclear weapons. To pursue a nuclear-weapons-free Korean Peninsula or Middle East or South Asia, without credible commitment to universal nuclear disarmament is akin to a parent trying to persuade his teenagers not to smoke while puffing on a cigar. There are steps available to make progress in this area and they include:***

a. Completing a treaty with full verification mechanisms cutting off further production of highly enriched uranium or plutonium for weapons purposes;
b. Universal ratification of the Comprehensive Test Ban Treaty, now ratified by 176 nations;
c. Taking the arsenals of Russia and the US off of hair trigger, launch on warning high alert;
d. Legally confirmed pledges by all states with nuclear weapons never to use them first;
e. Making cuts in the US and Russia's arsenal irreversible and verifiable.
(Italics added)

* * *

We, the Nobel Peace laureates, pledge to pursue joint efforts and strengthen cooperation for the development of democracy, peace and human rights on the Korean Peninsula and the world as a whole.—June 17, 2006, At the closing of the "2006 Gwangju Summit of Nobel Peace Laureates"

- *Mikhail Gorbachev, Nobel Peace Laureate 1990*

- *Kim Dae-jung, Nobel Peace Laureate 2000*
- *Mairead Corrigan Maguire, Nobel Peace Laureate 1976*
- *Shirin Ebadi, Nobel Peace Laureate 2003*
- *Wangari Muta Maathai, Nobel Peace Laureate 2004*
- *International Peace Bureau (IPB), Organization awarded Nobel Peace Prize 1910*
- *American Friends Service Committee (AFSC), Organization awarded Nobel Peace Prize 1947*
- *Amnesty International (AI), Organization awarded Nobel Peace Prize 1977*
- *International Physicians for the Prevention of Nuclear War (IPPNW), Organization awarded Nobel Peace Prize 1985*
- *Pugwash Conferences on Science and World Affairs, Organization awarded Nobel Peace Prize 1995*

Mr. SHAYS. Thank you, Mr. Granoff.
Mr. Sokolski. Thank you.

STATEMENT OF HENRY D. SOKOLSKI

Mr. SOKOLSKI. Thank you, Mr. Chairman.

I am a little humbled. This is quite an assembly that you have put together of experts. It is an honor to be here, and I thank you for holding the hearing.

Mr. SHAYS. It is an honor to have you here. And it is an assembly of some very fine experts, so thank you for being part of it.

Mr. SOKOLSKI. I want to talk about the topic that you assigned us, and I guess my message today is that your hearing is perhaps too timely. I say that because the nonproliferation provisions in the NPT have pretty much been watered down for a long time, and they have been overshadowed, I think, too much by many countries' backing of the most dangerous and uneconomical forms of nuclear energy. I think you heard some expressions of that enthusiasm, though muted, even today.

What is worse, since the early 1990's we and our allies have shied away from enforcing the NPT against the world's worst proliferators. Now, sadly, I don't think there is any technical or really any simple diplomatic substitute for these treaty-based systems, particularly the NPT. I think that is why I have spent so much time, both in my service on the Hill at the Defense Department and advising the CIA, and in running my own center, on commissioning research and looking into how to make the nonproliferation provisions of these rather weak institutional barriers, the NPT and the IAEA, much more effective.

We have commissioned at the center that I run, the Nonproliferation Policy Education Center, a good number of analyses over the last, I'd say, four or 5 years. Today what I would like to do is just give you four of the key findings of this research.

First, I think if we are to do better we really need to clarify what the NPT protects as being peaceful. A key reason why the nonproliferation provisions of the NPT have become more difficult to enforce is that most nations, including Iran, North Korea, and, I hate to say it, the U.S. Government, have adopted too generous a view of what the inalienable right to develop research and produce peaceful nuclear energy is under the NPT's article four. Simply because a nuclear activity or material might have some conceivable civilian application and a country is willing to let international inspectors come and monitor them occasionally I would submit is not enough to meet the criteria of what is peaceful under the NPT.

In addition, the nuclear activity or material must also be capable of being monitored in a manner that will prevent it from being used for bombs. This is laid out in article three. And their applications must be economical enough clearly to be beneficial. I think if you note when you read the treaty it says the purpose is to share the benefits of peaceful nuclear energy. I don't think it was meant to promote uneconomical activities that bring countries within days or weeks of having bombs. That is not the purpose of the treaty. It has become that, and that is a big problem.

Certainly building commercial nuclear fuel making plants which could bring nations to the brink of having bombs is hardly a per

se right under the NPT. Actually, if it is possible I would like to submit some testimony that I gave on this very issue which basically relies on the research of other experts and legal authorities and historians going into what the per se rights are under the NPT, with your permission. Indeed, such a reading of the NPT would make the treaty one that promotes the spread of nuclear weapons making capabilities, which is the exact opposite of its intent.

Second, the IAEA should concede what it can't safeguard and seek more funds to safeguard what it can. The ability of the IAEA to account for nuclear materials that are needed to make nuclear weapons is hampered not only by a lack of candor regarding what the Agency's inability to safeguard nuclear fuel-making activities is, but also its persistent tendency to rationalize away new safeguards and physical security challenges and to shy from raising the funds needed to meet these new challenges.

You had a series of questions during the hearing that were quite interesting about whether or not the IAEA budget was growing or not. It is growing, but it is puny. To give you some idea, we spent about $6 billion on the Transportation Security Agency to check your luggage and to make sure that you don't bring liquids on of a certain type. We have 100 percent false alarm rate for that particular activity. We take old women and children and we put them through the wringer. The IAEA is not permitted, by its own charter, to have a false alarm rate higher than 5 percent. Its budget right now—and this is in the notes. We standardized it to 2004 dollars—is roughly about $100-some-odd million.

Now, I heard testimony that said that while $30 million, or even more, had been added, but that there was a lot of resistance because the tax burden on us or on other countries. I don't know. That doesn't sound right to me. The $30 million just isn't that much.

For the last 20 years the Agency safeguards budget has been little more than doubled in constant dollars. During that same period, however, civilian stockpiles of separated plutonium and highly enriched uranium, which the Agency is obligated to safeguard because they are directly usable for nuclear weapons, have increased six times over. This does not include the material that is not safeguarded, which is not six times over but twenty times over. The actual amount of civilian nuclear weapons usable material that goes unaccounted for each year, meanwhile, has been increasing steadily as the number and output of nuclear fuel-making facilities grows internationally.

If we are serious about safeguarding against the spread of nuclear weapons and preventing nuclear theft or terrorism, these trends have to change. The IAEA may be able to monitor as they look at fuel-making activities, but it cannot inspect these facilities to provide timely warning of diversions or thefts, which are equivalent to many, many nuclear weapons worth each year. It should admit this publicly. I think Mr. Elbarday is to be commended for coming as close as he has to admitting it.

Mr. SHAYS. I want you to be very specific. They should admit what publicly?

Mr. SOKOLSKI. That they cannot inspect nuclear fuel-making facilities to provide sufficient warning of a possible diversion to intervene and prevent it. In other words, by the time they find out that several bombs worth has gone missing, it can sometimes be years after the diversion could have occurred where the material was missing.

By the way, this gets to one of the problems the administration and Congress should have about a fissile material cutoff. Those nuclear fuel-making facilities that would be examined by a Fissile Material Cutoff Treaty, it would be wonderful if you could verify them, yet right now you can't. The administration isn't entirely candid about this because it only says you could hide the whole facility.

The truth is, if you knew where the facilities were, you would not be able to know in any given year how much it produced, and the difference of what you knew and what the truth was could be equal, depending on the facilities, literally to scores of weapons worth in the case of one of the large facilities just brought online in Japan. So it is kind of like keeping track of the funds in Enron. If you don't know what they are making, you don't know what they are stealing. And that is where we are. People need to come out and admit that, and they are not.

Third, governments must put security first. By the way, I do make recommendations for increasing the IAEA's budget, and they should get more money based on user fees, to be blunt. Right now Italy has no reactors. It pays more into safeguards than South Korea, who has 18 reactors. There is something perverse about that. You have to change that. And there are a number of things where the IAEA has identified where they can do better. They know how to do it; they just lack money. So you have to make the distinctions. You have to give them the money where they need it and encourage them to be candid where no amount of money is going to make much difference for the time being.

Third, governments must put security first instead of subsidizing uneconomical, dangerous nuclear energy projects. Concern for nuclear security has increasingly taken a back seat to states' encouragement of uneconomical nuclear energy projects that can bring countries right to the brink. Japan, which has already been rocked by revelations that its pilot plutonium-making plants had lost track of roughly 40 bombs worth of material over the years, just began operation of one of the world's largest reprocessing plants. This plant is certain to lose money, and experts project the IAEA will lose track of nearly 50 bombs worth of crude nuclear weapons worth of plutonium there annually.

Other equally problematic nuclear fuel-making operations are underway in Brazil, South Africa, India, Ukraine, and Argentina. One has to wonder why the IAEA has correctly established that there is no economic or technical requirement for additional fuel-making capacity over the next ten to twenty years, yet the U.S. is doing little to object to these efforts and arguably is encouraging them in order to get them to pursue becoming a nuclear fuel supplying state under its new initiative, the Global Nuclear Energy Partnership, which Mr. von Hippel has done a great deal of work on.

Here it would help to pace nuclear power's expansion and that of commercial nuclear fuel——

Mr. SHAYS. Let me do this. I think I need to interrupt you to make sure we get to the Professor.

Mr. SOKOLSKI. Let me stop right here then.

Mr. SHAYS. OK. Thank you.

Mr. SOKOLSKI. Sorry.

[The prepared statement of Mr. Sokolski follows:]

Clarifying and Enforcing the Nuclear Rules

Testimony by

Henry Sokolski
Executive Director
The Nonproliferation Policy Education Center
1718 M Street NW, Suite 244
Washington, DC20036
npec@npec-web.org

www.npec-web.org

Presented Before a Hearing of
The U.S. House of Representatives, Committee on Government Reform
Subcommittee on National Security, Emerging Threats, and International Relations
"Weapons of Mass Destruction: Current Nuclear Proliferation Challenges"

2154 RHOB
2:00 P.M.
September 26, 2006

Mr. Chairman, ranking member, members of the committee, I want to thank you for inviting me here to testify on the Nuclear Nonproliferation Treaty (NPT), and on how to improve implementation of the NPT and the International Atomic Energy Agency's (IAEA's) nuclear safeguards system. I previously worked on these matters in the U.S. Senate as a legislative aide, in the Pentagon as the Deputy for Nonproliferation Policy under Secretary Cheney, and as an analyst in the Secretary of Defense's Office of Net Assessment. I currently run a nonprofit educational organization, the Nonproliferation Policy Education Center, which is completing two independent studies on how implementation of the IAEA's safeguards system and the NPT can be improved.

Your hearing today is, unfortunately, all too timely. The nonproliferation provisions of the NPT and the IAEA have long been watered down and overshadowed by too many countries' backing of the most dangerous and uneconomical forms of nuclear energy. What's worse, since the early 1990s, we and our allies have shied away from enforcing the NPT or the IAEA against the world's worst proliferators. In Iran's case, we have decided to focus instead on enforcing a voluntary, confidence-building political understanding Iran made with France, the U.K. and Germany. With North Korea, we deferred enforcing the NPT for nearly a decade and then in 2003 actually ignored the IAEA's formal referral of Pyongyang's NPT violations to the UN Security Council. Finally, in the case of India, we and our allies are making an enormous exception, which failing an unprecedented expression of nuclear self-restrain by India, risks all but vitiating the nonproliferation utility of the NPT and IAEA.

Sadly, there is no technical or diplomatic substitute for these treaty-based systems. That's why my center has been commissioning research on how to make the nonproliferation provisions of the NPT and the IAEA more effective. Today, I would like briefly to discuss four of the key findings of the research that's been done.

(1) ***We need to clarify what the NPT protects as being "peaceful."*** A key reason why the nonproliferation provisions of the NPT have become more difficult to enforce is that most nations – including Iran, North Korea, *and* the United States – have adopted too generous a view of the "inalienable right" to develop, research and produce "peaceful nuclear energy" that the NPT is meant to protect. Simply because a nuclear activity or material might have some conceivable civilian application and a country is willing to let international inspectors to monitor them occasionally is not enough. The nuclear activity or material must also be capable of being monitored in a manner that will prevent it from being used for bombs, and their applications must be economical enough to be clearly "beneficial." Certainly, building commercial nuclear fuel making plants, which can bring nations to the brink of having bombs, is hardly a *per se* right under the NPT. Indeed, such a reading of the NPT would make it a treaty that promotes the spread of nuclear weapons-making capabilities--the precise opposite of the treaty's intention.[1]

(2) ***The IAEA should concede what it can't safeguard and seek more funds to safeguard what it can.*** The ability of the IAEA to account for nuclear materials that are needed to make nuclear weapons is hampered not only by a lack of candor regarding the agency's inability to safeguard nuclear fuel-making activities, but also by a general tendency to rationalize away new safeguards and physical security challenges, and an unwillingness to raise the funds needed to meet these new challenges. For the last 20 years the agency's safeguards budget has little more than doubled in constant dollars (to about $105 million in 2004). During the same period, however, civilian stockpiles of separated plutonium and highly enriched uranium—which the agency is obligated to

safeguard because they are the most usable nuclear materials for making nuclear weapons, and can be fashioned into bombs in a matter of days—have increased six times over.[2] The actual amount of civilian nuclear weapons-usable material that goes unaccounted for each year, meanwhile, has been increasing steadily as the number and output of nuclear fuel-making facilities grows. If we are serious about safeguarding against the spread of nuclear weapons and preventing nuclear theft or terrorism, these trends must change. The IAEA may be able to monitor nuclear fuel-making in rough terms, but it cannot inspect these facilities to provide timely warning of diversions or thefts equivalent to many nuclear weapons. It should admit this publicly. This would help put a spotlight on the dangers associated with additional governments trying to create even more nuclear fuel-making plants than already exist.[3] At the same time, technical opportunities to improve material accountancy coverage for reactors and inspection coverage exist, and deserve to be funded beyond the current levels.[4] The agency also could do more to encourage tighter physical security and better controls on uranium source materials. For all of these needed upgrades, the existing system of country assessments to fund the IAEA's budget, a system based on the UN formula and each country's GDP, is simply inadequate.[5] It needs to be complemented with a user-fee based on the size of each country's nuclear program and inspection requirements.

(3) ***Governments must put security ahead of subsidizing uneconomical, dangerous nuclear energy projects.*** Concern for nuclear security has increasingly taken a backseat to states' encouragement of uneconomical nuclear energy projects that can bring countries within weeks or days of acquiring nuclear weapons. For example, Japan, which was already rocked by revelations that its commercial plutonium fuel-making authorities had lost track of roughly 40 bombs worth of nuclear weapons usable material, began operations of one of the world's largest reprocessing plants at Rokkasho-mura this year. This plant is certain to lose money and experts project that the IAEA will lose track of nearly 50 crude bombs' worth of weapons usable plutonium there annually.[6] Other equally problematic nuclear fuel-making operations are underway or planned in Brazil, South Africa, India, Ukraine, and Argentina. One has to wonder why: The IAEA has correctly established that there is no economic requirement for additional nuclear fuel-making capacity for next 10 to 20 years.[7] Yet, the US is doing little to object to these efforts, and arguably is encouraging countries to pursue them in order to become "nuclear fuel supplying states" under the U.S. Department of Energy's Global Nuclear Energy Partnership.[8] Here, it would help to pace nuclear power's expansion and that of commercial nuclear fuel-making more with what private financial institutions are willing to fund than with what governments are willing to subsidize.

(4) ***We need to do more to enforce the rules and do so in a country-neutral fashion.*** Finally, no nuclear nonproliferation rules can long survive if violators go unidentified and unpunished, and if states that never signed up or never followed the rules are treated as though they had. At the very least, North Korea should be held responsible for its violation of the NPT and its IAEA safeguards agreement, even though it withdrew from the NPT. In addition, Iran should be sanctioned not just for its failure to adhere to the one-off, voluntary, confidence-building political understanding it reached with the U.K., France, and Germany in November of 2004, but also for its clear violations of its IAEA safeguards obligations that it assumed by joining the NPT. Also, it is critical that the U.S. and other states not grant India the benefits of being an NPT member in good standing (India never signed the treaty) unless New Delhi is at least willing to restrict its military nuclear efforts. India could do this by restricting its weapons production efforts, as all NPT nuclear weapons states already have, or at least by not expanding its nuclear weapons material production efforts beyond its current level. This is not only needed to prevent an arms rivalry in the region (and beyond), but to

keep the U.S. and other civilian nuclear suppliers of India compliant with their NPT obligation not to help any nation that did not have nuclear weapons before 1967 get nuclear arms "directly or indirectly". Finally, the U.S. and other countries should back adoption of new country-neutral rules similar to those being promoted by the French Government. These new rules would prescribe minimum sanctions for violations in advance (without ever naming specific states). They also would shift much of the current burden of proof in determining NPT and IAEA violations (and for taking appropriate enforcement actions) from the IAEA's Board of Governors, where it now lies entirely, to the suspect nations themselves. Instead of requiring the IAEA board to prove a violation before taking action, these new rules would suspend nuclear cooperation if the board were unable to find a nation clearly to be in compliance. Similarly, minimum sanctions would be imposed automatically against states that the IAEA board found to be in violation.[9]

Endnotes

1. On these points, see Albert Wohlstetter, "Spreading the Bomb without Quite Breaking the Rules," *Foreign Policy,* No. 25 (Winter 1976-77); Arthur Steiner, "Article IV and the 'Straightforward Bargain'," PAN Heuristics Paper 78-832-08, in Wohlstetter, et al., *Towards a New Consensus on Nuclear Technology*, Vol. II (Supporting Papers), ACDA Report no. PH-78-04-832-33 (Marina del Rey, CA: Pan Heuristics, 1978), pp. 1-8; Eldon V.C. Greenberg, *The NPT and Plutonium: Application of NPT Prohibitions to 'Civilian' Nuclear Equipment, Technology and Materials Associated with Reprocessing and Plutonium Use* (Washington, DC: The Nuclear Control Institute, 1993) <available at http://www.npec-web.org/Frameset.asp?PageType=Writings>; and Henry Sokolski, "The Nuclear Nonproliferation Treaty and Peaceful Nuclear Energy," Testimony before *Assessing "Rights" under the Nuclear Nonproliferation Treaty*, a hearing of the U.S. House of Representatives, Committee on International Relations, Subcommittee on International Terrorism and Nonproliferation, March 2, 2006 <available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=060301Testimony%20House%20IRC%20-%20NPT%20Rights&PDFFolder=Testimonies>.

2. See Table 1 below, which reflects the growth of safeguarded nuclear material in NPT non-nuclear-weapons states that is of direct use for making nuclear weapons.

The IAEA Safeguards Budget, and Safeguarded Weapons-Usable Nuclear Materials

	As of 1984	As of 2004
IAEA Safeguards Budget Obligation (In Constant Fiscal Year 2004 U.S. Dollars)	$45.7 million	$104.9 million
Separated Plutonium (Pu) Outside Reactor Cores	7.7 tonnes	89.0 tonnes
Highly Enriched Uranium (HEU)	11.8 tonnes	32.0 tonnes
Total IAEA Safeguarded Weapons-Usable Nuclear Materials	19.5 tonnes	121.0 tonnes

Data Sources: For data on the IAEA's safeguards budget obligation in current—not constant—U.S. dollars, *see The Agency's Accounts for 1984*, GC(XXIX)/749, p. 26; and *The Agency's Accounts for 2004*, GC(49)/7, p. 47. For data on the amount of nuclear material safeguarded by the IAEA, *see Annual Report for 1984*, GC(XXIX)/748 (Vienna, Austria: IAEA, July 1985), p. 63; and *Annual Report for 2004*, GC(49)/5, Annex, Table A19.

Prepared by R.B. Zarate, Research Fellow, Nonproliferation Policy Education Center, September 2006.

3. On these points, see Dr. Edwin S. Lyman, "Can Nuclear Fuel Production in Iran and Elsewhere Be Safeguarded Against Diversion?," a paper presented at the NPEC/King's College London conference, *After Iran: Safeguarding Peaceful Nuclear Energy*, October 2-3, 2005, London, UK <available at http://www.npec-web.org/Frameset.asp?PageType=Writings>.

[4] The IAEA, for example, still does not know whether most of its monitoring cameras are even on. This is a serious shortcoming. Over the last six years, the agency has learned of camera "blackouts" that lasted for "more than 30 hours" on 12 separate occasions. What's worse, it only learned of these blackouts after inspectors went to the sites and downloaded the camera recordings, as they are required to do every 90 days. Under new proposed "integrated safeguards" procedures, such downloading would occur only every 13 months—a period within which a state could conceivably make a nuclear weapon unbeknownst to the IAEA. The IAEA staff recently proposed to correct this inspections gap by accelerating implementation of near real-time monitoring using satellite communication connections. This effort, though, is being implemented at an excruciatingly slow pace due to a lack of funds. *See* J. Whichello, J. Regula, K. Tolk, and M. Hug, "A Secure Global Communications Network for IAEA Safeguards and IEC Applications," IAEA User Requirements Document, May 6, 2005. In addition, the IAEA still lacks a contingency fund (of $10 million to $30 million) needed to exercise its right under the Additional Protocol to conduct wide-area surveillance of countries, such as Iran, using remote sampling technologies that are currently available. See Garry Dillon, "Wide Area Environmental Sampling in Iran" a paper presented at the NPEC/King's College London conference, *After Iran: Safeguarding Peaceful Nuclear Energy*, October 2-3, 2005, London, UK <available at http://www.npec-web.org/Frameset.asp?PageType=Writings>. On other gaps that additional funding to the IAEA's safeguards system could fix, see the United States Government Accountability Office, "Nuclear Nonproliferation: IAEA Has Strengthened Its Safeguards and Nuclear Security Programs, but Weaknesses Need to be Addressed," October 2005, GAO-06-93.

5. There are two good reasons to reform how IAEA safeguards funds are raised. First, the current system is unfair: Italy, a nation that has no power reactors, pays more into the system than South Korea, which has 18 power plants. Second, the size of the IAEA budget bares no relation to other post-9/11 security efforts. For example, the U.S. Transportation Security Agency has a budget in excess of $6 billion dollars annually to screen U.S. air passengers; it tolerates a false-alarm rate in its screening of nearly 100 percent. In contrast, the IAEA, which is responsible for preventing relatively small diversions to make nuclear bombs from hundreds of thousands tons of civilian nuclear material which it safeguards, has an annual safeguards budget of only $130 million and is legally constrained against doing any inspection if it might produce a false-alarm rate more than 5 percent of the time.

6. On these points, *see* Bayan Rahman, "Japan 'Loses' 206 kg of Plutonium," *Financial Times*, January 28, 2003 <available at http://news.ft.com:servlet/ContentServer?pagename=FT.com/StoryFT/FullStory&c=StoryFT&cid=1042491288304&p=10112571727095>; and Nuclear Control Institute, "Enormous 'Plutonium Gap' at Japan's Tokai Plant Highlights Proliferation Risks of Reprocessing," January 28, 2003 <available at http://www.nci.org/03NCI/01/pr12803.htm>.

7. For projections, *see* International Atomic Energy Commission, *Multilateral Approaches to the Nuclear Fuel Cycle*, INFCIR/640, February 22, 2005, p. 51.

8. On these points, *see* Matthew Bunn, "Assessing the Benefits, Costs, and Risks of Near-Term Reprocessing and Alternatives," testimony presented before the U.S. Senate, Committee on Appropriations, Subcommittee on Energy and Water, September 18, 2006 <available at http://appropriations.senate.gov/hearmarkups/bunn-gnep-testimony.mht>; Edwin Lyman, "The Global Nuclear Energy Partnership: Will It Advance Nonproliferation or Undermine It?" presented at the annual meeting of the Institute of Nuclear Materials Management, July 19, 2006 <available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=20060700-Lyman-GNEP&PDFFolder=Essays>; and

Steve Fetter and Frank N. von Hippel, "Is U.S. Reprocessing Worth the Risk?", *Arms Control Today*, September 2005 <available at http://www.armscontrol.org/act/2005_09/Fetter-VonHippel.asp>.

9. On these points, *see* Government of France, "Strengthening the Nuclear Non-Proliferation Regime," a working paper submitted by France to the Preparatory Committee for the 2005 Review Conference to the Parties to the Treaty on the Non-proliferation of Nuclear Weapons, NPT/CONF.2005/PC.III/WP.22, May 4, 2004 <available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=NonPaper040504%20UN-%20France%20-%20NPT-%20English%20Version&PDFFolder=Presentations>; Henry Sokolski, "When Clever Gets Dumb: Washington's Iran Deal Is An Exercise in Futility," N*ational Review Online*, July 20, 2006 <available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=20060817-Sokolski-NRO-WhenCleverGets&PDFFolder=OpEds>; Pierre Goldschmidt, "The Nuclear Non-proliferation Regime: Avoiding the Void," a paper presented at an NPEC seminar, February 28, 2006 <available at http://www.npec-web.org/Frameset.asp?PageType=Projects>; and *Letter to Congress on the Dangers that the U.S. Might Violate the NPT in Aiding India's Civilian Program*, June 20, 2006 <available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=20060620-LetterOnArticleOne&PDFFolder=Essays>.

Mr. SHAYS. Mr. von Hippel. Let me just tell you I am going to give you a choice here. I am coming back after my votes. I have kept you here all day, so I am not expecting that you would have to stay, but whoever stays, even if it is one of you, I will be back to have a dialog, because, frankly, I think you can help put these pieces together that the other two panels have introduced and so on.

What the bell meant was four votes, but, Professor von Hippel, we have time to have you make your statement.

Mr. VON HIPPEL. OK. I will make it in 5 minutes.

Mr. SHAYS. You can go over a little bit. We will be fine.

STATEMENT OF FRANK VON HIPPEL

Mr. VON HIPPEL. Thank you. Thank you for holding this hearing. I have organized my statement into why the NPT is important, why it is in trouble, and what the United States can do about it.

Mr. SHAYS. Great.

Mr. VON HIPPEL. Why it is important, the NPT embodies an almost universally shared recognize that nuclear weapons are a threat to all mankind. It recognizes that the weapons, themselves, are the threat, no matter which country possesses them. It also represents a commitment to do something about this to prevent the spread of nuclear weapons to more countries and to reduce their numbers in the countries that have them ultimately to zero.

Under the NPT, the Atomic Energy Agency checks whether non-weapon states are complying with their commitments. We know as much as we do about Iran's nuclear activities, for example, only because Iran is a party to the NPT, which gives the IAEA the right to go and look.

Now, why is it in trouble? One reason is that the non-weapon states are increasingly reluctant to accept additional restrictions when the United States has dropped any pretense of making irreversible nuclear arms reductions. The non-weapon states won't pay attention to our priorities if we don't pay attention to theirs.

In June I saw how angry this dialog has become when I attended a conference in Oslo on minimization of highly enriched uranium in civilian nuclear applications, one of your concerns. The concern was that, as you have indicated, that highly enriched uranium can be used by terrorists to make improvised nuclear explosions, but South Africa's Ambassador to the IAEA at that conference declared that the NPT is not an a la carte menu from which states' parties may choose their preferences while ignoring other aspects, and he referred in particular to the lack of progress on the Fissile Material Cutoff Treaty, which is one of the 13 steps that the U.S. committed to at the NPT Review Conference in 2000.

The treaty, which is, in the words of the U.N. resolution, the agreement in 2000 called for immediate commencement of negotiations under an effectively verifiable treaty banning the production of fissile materials for nuclear weapons or other nuclear explosive devices.

It is 6 years later, and negotiations at the Conference of Disarmament have not begun because of what I consider a petty disagreement by the U.S. and China over the proposed agenda.

Now, with regard to what the United States can do, I would like to offer a list of four things that we could do to help restore legitimacy to the NPT and thereby to its usefulness as a tool against the dangers of nuclear proliferation and nuclear terrorism.

First, a Fissile Material Cutoff Treaty will only happen if the United States gives this priority. U.S. also has to support an internationally verified fissile cutoff, not oppose it, as we do today. We can't require that non-weapon states be open to IAEA inspection but refuse such inspections for ourselves. I agree with Mr. Sokolski that there is an uncertainty of a percent or so or up to a few percent in the measurements at facilities which handle highly enriched uranium and plutonium, but that is much better than nothing.

I recall the first President Bush's insistence that under the Chemical Weapons Convention international inspections should be possible any time, anywhere, without right of refusal. He did not say except for in the United States.

Now, the second thing is the Comprehensive Test Ban Treaty. It is almost always at the top of the list for non-weapon states. The U.S. Senate refused to ratify the CTBT in 1999. The global test moratorium has continued, however, and the directors of the U.S. nuclear weapons labs have continued to certify each year that the U.S. nuclear stockpile is safe and reliable and doesn't require testing. The National Academy of Sciences and the Department of Energy agree that this situation can be maintained indefinitely, although they may not agree on how best to do it.

Under these circumstances, it would be in the U.S. interest to ratify the CTBT and lock in other countries, as well. There will always be the escape clause that gives each state party to the treaty the right to withdraw from it if it decides that its supreme national interests are jeopardized.

Third, we should take the objective of nuclear disarmament seriously. Why does the U.S. keep thousands of nuclear warheads? Because Russia has thousands of nuclear warheads. And if it came to nuclear war, we would want to be able to destroy as many as possible of theirs before they could be used. Why not then agree to destroy as many as possible of these warheads now by agreement and eliminate the hair trigger situation which has been discussed?

Russia and the U.S. could get down to a thousand warheads each—that is a thousand total warheads, not just deployed warheads—before we would need to ask other countries to reduce. Today we each have enough material to make more than 10,000.

Fourth—and this brings me back to my colleagues' statement—continue the moratorium on spent fuel reprocessing. This is an issue that is being driven by Congress that has major implications for the future of nuclear proliferation. For 30 years the U.S. has been able to say to other countries we don't reprocess and you don't need to, either. In combination with the invisible hand of economics, that posture has been very effective.

The number of states having their reactor fuel reprocessed has declined dramatically in those 30 years. Congress now proposes to have federally financed reprocessing of spent power reactor fuel. The reason is the delay in the availability of Yucca Mountain. A reprocessing plant would be an alternative destination for spent

fuel, but it would be a very expensive one. And such damage to U.S. nonproliferation policy is completely unnecessary. Storing older spent fuel in dry casks at reactor sites or at centralized storage sites would cost one-tenth as much as reprocessing and would be much less hazardous than reprocessing.

Mr. SHAYS. Professor, I have about 4 minutes, which is still enough time, but if you could kind of close up.

Mr. VON HIPPEL. I am down to my last half page.

Mr. SHAYS. Great.

Mr. VON HIPPEL. Just on that point, though, the hazard from spent fuel in dry cask storage at reactor sites is a minuscule portion of the total hazard of that site. The major hazard is from the reactor core, the next down is the recently discharged spent fuel in the pools. The dry cask storage is negligible hazard.

So, in summary, the non-weapon states will not support the U.S. effort to further limit their rights under the NPT if the U.S. doesn't begin to live up to our own central NPT commitment to irreversibly end the arms race with the FMCT and the CTBT and get on with the task of nuclear disarmament.

I would also like to make one specific suggestion: that Congress require of the executive branch an annual report from the President summarizing relevant initiatives, progress, and obstacles to implementation of U.S. commitments under the NPT.

Finally, on how easy it is——

Mr. SHAYS. I have now two and a half minutes.

Mr. VON HIPPEL. OK, but you really wanted to know the answer to this.

Mr. SHAYS. OK. Go for it.

Mr. VON HIPPEL. How hard is it to make a nuclear weapon? John Phillips——

Mr. SHAYS. Are you going to stay or do you need to leave, because I am coming back?

Mr. VON HIPPEL. I have a 9 o'clock flight from Dulles.

Mr. SHAYS. Then you are fine. You can stay.

[The prepared statement of Mr. von Hippel follows:]

Steps to Strengthen Compliance with the Nuclear Nonproliferation Treaty

Frank N. von Hippel
Professor of Public and International Affairs
Program on Science and Global Security
Princeton University

Prepared statement for the House Government Reform Committee
Subcommittee on National Security, Emerging Threats, and International Relations

Hearing on

Weapons of Mass Destruction: Current Nuclear Proliferation Challenges

2154 Rayburn Building
September 26, 2006

Thank you for holding this timely hearing on a critical issue. In my prepared statement, I summarize briefly my views on:

1. Why the NPT is important,
2. Why it is in trouble, and
3. What the United States can do about it

Why the NPT is important

The NPT embodies an almost universally shared recognition that nuclear weapons are a threat to all mankind. It recognizes that *the weapons themselves* are a threat – no matter which country possesses them. Our species and our institutions are too fallible to possess thousands of nuclear weapons indefinitely without some – and possibly virtually all – of them being used as a result of a terrible mistake.

Nuclear weapons are the original weapons of mass destruction. They can destroy masses of people indiscriminately. We learned that from Hiroshima and Nagasaki. The nuclear explosions over those cities destroyed the Army headquarters in Hiroshima and the ordinance factory in Nagasaki. They also destroyed the schools, the hospitals, the temples and everything else within a radius of more than a mile.

Today, the average nuclear weapon has ten times the explosive power of the Hiroshima and Nagasaki weapons and some are a hundred times as powerful and indiscriminate.

Other countries' nuclear weapons represent a danger to us. They could be used without authorization or by an irresponsible or incompetent leadership. And highly enriched uranium in the nuclear complexes that support those nuclear weapons could be stolen and used to by terrorists to make improvised nuclear explosives.

Our own nuclear weapons are a threat to ourselves as well as to others for the same reasons.

The Nonproliferation Treaty represents a common understanding by virtually all of the nations of the world of this danger and a commitment to do something about it: to prevent the spread of nuclear weapons to more countries and to reduce their numbers and supporting infrastructure in the countries that possess them – ultimately to zero.

Under the NPT, the International Atomic Energy Agency checks whether non-weapon states are complying with their NPT commitments and reports if that compliance is in question. The IAEA may have its limitations but it is a marvel in the anarchic international world that we live in. We know as much as we do about Iran's nuclear activities, for example, only because Iran is a Party to the NPT has given the IAEA the authority to go and look.

Why is the NPT in trouble?

There are many ways in which we could strengthen the barriers between nuclear power and nuclear-weapons technologies. For example, we could agree to eliminate stocks of HEU and plutonium wherever possible and to limit the proliferation of national enrichment and reprocessing plants.[1] But the non-weapon states are increasingly reluctant to accept additional restrictions when the nuclear-weapon states appear to have abandoned making purposeful progress on irreversible nuclear arms reductions. The non-weapons states won't pay attention to our priorities if we don't pay attention to theirs.

In June, I saw at first hand how angry this dialogue of the deaf has become when I attended a conference in Oslo on "Minimization of HEU in Civilian Nuclear Applications."[2]

Eliminating civilian uses of highly enriched uranium wherever possible is an objective on which I thought there was consensus. There is no question that, if about 100 pounds of highly enriched uranium were stolen, a terrorist group could figure out how to use it to make a Hiroshima type nuclear explosion. The Department of Energy is so convinced of this danger that it believes that a prepared group might be able to improvise a nuclear explosion on the spot within minutes of penetrating a storage facility containing HEU.[3]

So you would think that it would be easy to achieve an international agreement that highly enriched uranium should be replaced in reactor fuel by low enriched uranium wherever possible. It turns out that it is not easy! There is just about universal agreement that it is a desirable goal. But some leading non-weapon states such as South Africa,

whose government inherited a large stock of highly enriched uranium, are not ready to support the elimination of civilian uses of HEU as a new objective of the nonproliferation regime.

At the Oslo conference, South Africa's ambassador to the IAEA declared, "The NPT is not an a la carte menu from which States Parties may choose their preferences, while ignoring other aspects." He then reminded us that "South Africa has continued to call for the soonest commencement of negotiations in the Conference on Disarmament, without preconditions, on a treaty banning the production of fissile materials for nuclear weapons or other explosive devices."[4]

What he was referring to was one of the 13 steps committed to by the U.S, Russia, U.K., France and China at the NPT Review Conference of 2000. These were steps toward implementing their commitment under Article VI to "cessation of the nuclear arms race at an early date and to nuclear disarmament." The third of these steps was "the immediate commencement of negotiations on [an] effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices...with a view to their conclusion within five years."[5]

Yet, six years later, negotiations still have not begun, principally because of a disagreement between the U.S. and China over the agenda of the Conference on Disarmament. Since the CD sets its agenda by consensus, if the U.S. or China does not agree with a proposed agenda, nothing happens.

Supporters of a global HEU cleanout argued in Oslo that we should make progress where we can, and a global cleanout of civilian HEU is one place where a great deal of progress can be made today. Furthermore, we pointed out, that most of the HEU that needs to be cleaned out is in the weapons states.[6]

But our arguments did not prevail. The South Africans and others simply responded: "Your priority is a global cleanout of HEU? Ours is a Fissile Material Cutoff Treaty!"

What the United States can do

In the remainder of my testimony, I would like to discuss the FMCT and some other things that the weapon states could do to restore legitimacy to the NPT and thereby its usefulness as a tool against the dangers of nuclear proliferation and nuclear terrorism.

A Fissile Material Cutoff Treaty. An FMCT would put a ceiling on weapon stockpiles. In the case of the U.S., given the plutonium and HEU that we have declared excess, it would limit us to around 15,000 warheads. That is not much of a constraint, given that *the U.S. is currently on track to reduce to a total of 2200 operational strategic and about* 6000 total warheads.

The good news is, that as far as we know, the five NPT weapon states have stopped producing fissile materials for weapons. India, Israel, North Korea and Pakistan have not, however, and India, in particular, is vastly expanding its capabilities to produce plutonium for weapons. Some of this expansion will be facilitated by the U.S.-India deal. It is regrettable that the Bush Administration and Congress have not seen fit to condition India's access to the global uranium market on it joining the fissile-material production moratorium.

The Bush Administration has damaged the prospects for a meaningful FMCT further by opposing international verification.[7] This position is profoundly undermining of the NPT because an FMCT would, in effect, extend to the nuclear-weapon states one of the obligations that the non-weapon states have accepted: not to make HEU or plutonium for nuclear weapons and to accept IAEA verification of their compliance. The non-weapons states have every reason to ask why the U.S. thinks that this obligation should be verified in the non-weapon states but not in the weapon states?

An FMCT will only happen if the U.S. gives it priority – the first President Bush gave the Chemical Weapons Convention priority. Recall, by the way, his insistence that challenge inspections by the Organization for the Prevention of Chemical Weapons should be possible "any time, anywhere, without right of refusal."[8]

Unfortunately, neither the Clinton nor the Bush Administrations have given the FMCT that kind of priority.

A Comprehensive Test Ban Treaty always comes at the top of the list for the non-weapons states.[9] The U.S. Senate refused to ratify the CTBT in 1999. The global testing moratorium has continued, however, and the directors of the U.S. weapons labs have continued to certify each year that the U.S. nuclear stockpile is safe and reliable and doesn't require testing. The Department of Energy and independent experts both agree, that given the proper programs, this situation can be maintained (although they don't necessarily agree on the required programs).

Under these circumstances, it would appear to be in the U.S. interest to ratify the CTBT and lock in other countries as well. If necessary, there is always the escape clause, Article IX, "Each State Party shall, in exercising its national sovereignty, have the right to withdraw from this Treaty if it decides that extraordinary events related to the subject matter of this Treaty have jeopardized its supreme interests."

Take the objective of nuclear disarmament seriously. No one has a fail-safe formula for how to achieve a zero nuclear-weapon world. Although we are a lot closer to the preconditions for such a world today than we were during the Cold War, in at least three regions of the world: the Middle East, South Asia, and on the Korean Penninsula, countries still feel that their ultimate survival may depend upon their nuclear deterrents.

We can get to much lower levels of nuclear weaponry than Russia and the U.S. have today, however. President Kennedy's former national security advisor stated an obvious

truth in 1969 when he said that "a decision that would bring even one hydrogen bomb on one city of one's own country would be recognized in advance as a catastrophic blunder; ten bombs on ten cities would be a disaster beyond history; and a hundred bombs on a hundred cities are unthinkable."[10]

So why do we keep thousands of nuclear warheads? Because Russia has thousands of nuclear warheads and, if it came to nuclear war, we would want to be able to destroy as many as possible of those Russian warheads before they could be used against us.

Why not then destroy as many as possible *now* by agreement? All the rest of the world combined has only about 1000 warheads. Russia and the U.S. certainly could get down to that level before we started to ask other countries to reduce.

At the 2000 NPT Review Conference, the weapon and non-weapon states agreed on "The necessity of establishing in the Conference on Disarmament an appropriate subsidiary body to deal with nuclear disarmament."[11] The U.S. refuses, however, to allow a discussion of this subject at the CD.[12] What are we afraid of?

Continue the moratorium on spent-fuel reprocessing. My final suggestion is not on the list of thirteen steps agreed to in 2000 by the NPT weapon states. But it is an issue that is being driven by Congress at the moment and which I believe has major implications for the future of nuclear proliferation.

In the 1960s and early 1970s, the U.S. promoted spent fuel reprocessing and plutonium recycle worldwide. In 1974, however, India used the first plutonium that we had helped it produce and separate for what it called a "peaceful nuclear explosion."

The response of the Ford Administration, under the leadership of Secretary of State Henry Kissinger, was to block the export of reprocessing technology to more states. The Carter Administration, which came next, reviewed the rationale for the domestic reprocessing and plutonium recycle program that was being proposed in the U.S. at that time and concluded that it did not make any economic sense. A few years later, the U.S. nuclear utilities came to the same conclusion and have been unwilling to invest in reprocessing ever since.

The U.S. has therefore been able to say to other countries: "We don't reprocess and you don't need to either." In combination with the invisible hand of economics, that posture has been very effective. The number of states that are having their reactor fuel reprocessed has declined dramatically in the past thirty years.

Congress now proposes to reverse this successful policy and have federally financed reprocessing of spent power reactor fuel.[13] The reason is that the Nuclear Waste Policy Act of 1982 [Section 302(a)5(B)] committed the Department of Energy to start moving spent fuel off power-reactor sites by 1998. It expected to be able to ship the spent fuel to Yucca Mt but licensing delays have resulted in that destination being unavailable till at least 2017. A reprocessing plant would be an alternative destination.

Does this mean that we are willing to see other countries go down the same route? No, the Bush Administration has announced that it opposes new reprocessing or enrichment plants in "any state that does not already possess full-scale, functioning enrichment and reprocessing plants."[14]

The damage to the NPT and U.S. nonproliferation policy from this proposal for yet another discriminatory proposal is completely unnecessary. Storing older spent fuel in dry casks at reactor sites or at a centralized storage site would cost one tenth as much as reprocessing and is less hazardous with regard to both accidents and the potential for nuclear and radiological terrorism.[15]

Summary and recommendation

In summary, the NPT is in trouble. Some of this trouble stems from its inherent weaknesses. It was negotiated in the late 1960s, at a time when nuclear energy was expected to quickly become the dominant energy source worldwide. The U.S., for example, expected to have a nuclear capacity equivalent to about 1800 large power plants by today and to be building more than one hundred a year.[16] We actually have about 100 today and haven't ordered a new one in 30 years.

So the NPT protects the "inalienable right" of countries to acquire their own nuclear facilities, as long as they are subject to IAEA inspection and are not provably parts of a nuclear-weapon program. It is that right that we are trying to limit today in our struggle with Iran.

But we will not get support for further limiting the rights of the non-weapon states under the NPT if we don't begin to do a more credible job of living up to our own central commitment under Article VI of the NPT to irreversibly end the nuclear arms race (i.e. with the FMCT and CTBT) and get on with the task of nuclear disarmament.

In this connection, I would like to make one specific suggestion for a modest step Congress could take. It could require an annual report to Congress from the President summarizing initiatives, progress and obstacles to implementation of U.S. commitments under NPT Article VI.

---

[1] See, for example, *Global Fissile Material Report 2006*, www.fissilematerials.org.

[2] See the excellent summary by Cristina Chuen and William C. Potter, "The Oslo Symposium: On The Road To HEU Minimization," http://www.cns.miis.edu/pubs/week/060822.htm, which also has links to the papers and statements presented there.

[3] U.S. Department of Energy, Office of Security Affairs, Office of Safeguards and Security, *Manual for Protection and Control of Safeguards and Security Interests, Chapter I, Protection and Control Planning* FF, (Washington, D.C.: DOE, 15 July 1994).

[4] "South African Perspectives on Highly Enriched Uranium," Statement by Mr. A. S. Minty, South Africa's representative on the IAEA Board of Governors, at the International Symposium on Highly Enriched Uranium, Oslo, Norway, 19-20 June 2006.

[5] *Final Document of the Nonproliferation Treaty Review Conference of 2000*, paragraph 15.3.

[6] See e.g. "Global cleanout: Reducing the threat of HEU-fueled nuclear terrorism" by Alexander Glaser and Frank N. von Hippel, *Arms Control Today*, January/February 2006.

[7] See, for example, the U.S. White Paper released to the Conference on Disarmament, May 18, 2006, http://geneva.usmission.gov/Press2006/0518WhitePaper.html.

[8] The result was the concept of "managed access" inspections by which international inspectors could check for the presence of prohibited chemical weapons activities while unrelated proprietary and national security information was kept shielded from their view. This should be possible for the FMCT as well.

[9] Bringing the CTBT into force and continuing the testing moratorium were the first and second of the 13 steps toward nuclear disarmament demanded of and agreed to by the nuclear weapon states in the *Final Document of the Nonproliferation Treaty Review Conference of 2000*, paragraph 15.

[10] McGeorge Bundy, "To Cap a Volcano," *Foreign Affairs*, October 1969, p. 1.

[11] *Final Document of the Nonproliferation Treaty Review Conference of 2000*, paragraph 15.4.

[12] See e.g. the statement to the CD by Acting U.S. Assistant Secretary of State Rademaker, May 18, 2006, http://geneva.usmission.gov/Press2006/0518RademakerCDstatement.html

[13] Conference Report on the Energy and Water Appropriations Act for Fiscal Year 2006, Report 109-275, "Nuclear Energy Programs," pp. 141-142 and "Nuclear Waste Disposal," pp. 156-157.

[14] The White House, "Fact Sheet: Strengthening International Efforts Against WMD Proliferation," February 11, 2004, at www.whitehouse.gov/news/releases/2004/02/20040211-5.html. This position is paraphrased in the Department of Energy's *Report to Congress: Spent nuclear fuel recycling program plan*, May 2006, p. 10.

[15] See e.g. American Physical Society Panel on Public Affairs, *Nuclear Power and Proliferation Resistance: Securing the Benefits, Limiting Risk*, 2005"

[16] U.S. Atomic Energy Commission, *Proposed Environmental Statement on the Liquid Metal Fast Breeder Reactor Program*, WASH-1535, 1974

Mr. SHAYS. Let me do this. My staff can tell you where you can get a sandwich.

You have to stay, because I want to know how you do it.

Ambassador GRAHAM. Yes.

Mr. SHAYS. I just want to say that I would welcome all of you staying, but to force you to stay would be house arrest and I am not going to do that, but I think I have another 25 minutes before I am back here, and I will be back here. I think Mr. Granoff will be back here, so I am definitely back here.

Thank you.

We are recessed.

[Recess.]

Mr. SHAYS. I call this hearing to order.

What I would like, I will let you, Professor, tell me, and, Ambassador, I would like to have you tell me what I would like to hear from there, but in regards to the issue. This is the point I am trying to make: we have always known people could learn how to make a weapon, so to me the issue is not is there all the documentation if you are a bright student can you do it. The question is what I learned that I need to be disavowed of if it is not true is that basically to make a low-yield weapon using enriched uranium you don't need a lot of specialized parts, and you could, if you could get the weapons grade material, create a nuclear explosion.

Professor, I will have you start out on it.

Mr. VON HIPPEL. You are absolutely right. In fact, it is so easy to make a nuclear explosion—and it is not necessarily low yield. We are talking about Hiroshima scale—with highly enriched uranium metal, that the Department of Energy worries about improvised nuclear devices. That is, they worry about terrorists getting into a bunker which has highly enriched uranium metal in it and actually improvising an explosion on the spot before they can be stopped by the guard force. That is pretty easy.

Now, when you were talking about the Princeton undergraduate, John Aristotle Phillips, he wasn't a student of mine, but he did this as a project for a course of a colleague of mine, and it is considered so easy even by undergraduates to do a highly enriched uranium bomb that they always go for plutonium. They want to show that they are smart enough to do a plutonium bomb, which is an implosion bomb. In fact, the Hiroshima bomb was not designed at Los Alamos, it was designed by an assistant professor and a couple of graduate students in Berkeley the summer before. The whole Los Alamos head scratching and hair tearing was devoted to the plutonium bomb. But a plutonium bomb is not necessarily out of reach of terrorists, either. It is more difficult.

Mr. SHAYS. Let me ask you, with that, though, do you need material that would be harder to get a hold of? Is the material an issue there?

Mr. VON HIPPEL. No. Well, the plutonium is.

Mr. SHAYS. I don't mean the plutonium.

Mr. VON HIPPEL. No. In fact, Phillips went to call up DuPont, what kind of explosives to I use, and they were happy to tell him what kind of explosive to use. He went to the National Technology Information Service and asked for the Los Alamos Primer, which was the lectures that were given at Los Alamos to the incoming

people by this Berkeley assistant professor, and when they came out with the primer, which has now since then been published by the University of Chicago—no, by Berkeley University Press, California University Press. They said usually when people ask for this they ask for these, too, with a stack of documents. So, in fact, it was referred to in the testimony before that this was given as a project. By the way, Phillips didn't do it right, despite his claims. He actually made a mistake in the design. This is beyond the ordinary undergraduate, but it has been done by graduate students correctly.

Mr. SHAYS. OK. Gotcha.

Mr. VON HIPPEL. For the plutonium weapon.

Mr. SHAYS. Super.

Mr. VON HIPPEL. I had a colleague, Ted Taylor, at Princeton for a number of years who was an ace Los Alamos weapons designer in his previous incarnation, and he was the one who actually first raised the issue of nuclear terrorism in the 1970's, and he was concerned about the U.S. going to—at that time the U.S. was pushing toward a plutonium economy, and he was very concerned about having plutonium used as a commercial fuel by the millions of bombs worth, is what people were envisioning at that time. He was making the argument—and it was an argument. I mean, the community was not unanimous about this—that, in fact, terrorists could do it. It is more difficult, but you shouldn't ignore it.

Mr. SHAYS. Gotcha. Let me just go to you, Ambassador. You were going to tell me up front, and then I will get off of this issue, but I would like to just get it off the table here.

Ambassador GRAHAM. Well, I just wanted to, Mr. Chairman, tell you about my experience in South Africa with the South African government.

Mr. SHAYS. Can you give us a timeframe of when you were there?

Ambassador GRAHAM. Yes, I will. I headed the U.S. Government efforts to permanently extend the Nuclear Non-Proliferation Treaty in the 1993–1995 timeframe, and so I traveled all over the world looking for votes. It was a little bit like a political convention. And one of the places I went to was South Africa, because they were a very key vote. They were a swing vote. They had the possibility of bringing in a lot of non-aligned countries who were opposed to us to support our view that the NPT should be permanent.

So I went to South Africa and I was there for 2 days with a colleague and the first day I spent with the government in their offices, and then the second day they gave us a tour of their former nuclear weapon establishment, and they took us to a shut-down nuclear enrichment plant that they used to make the HEU, and then they took us over about ten miles away to Wallendaba, where they actually assembled the weapons, and they took us to the building where they assembled the weapons, and they showed us a large room. They said this is where we assembled the weapons. Look around you. Nothing has changed.

There was nothing in that room you couldn't find in a high school machine shop. They showed us the cases they had used to move the weapons around in. It was clear they would fit in the back of a panel truck. And then they gave us a short lecture on why they

built the weapons, which I won't go into unless you insist. And then they explained how. And they said that we spent on this program $150 million. I got that wrong. We spent on this program $25 million and had 150 people working on it, including the janitor. Nobody knew what we were doing. That doesn't count, of course, the money we spent enriching the uranium to weapons grade, just the bomb assembly part—$25 million, 150 people. We built six bombs of 20 kilotons. We didn't need to test them because we used the gun barrel design. You are the first Americans to see this other than those two on the International Atomic Energy inspection team. We are telling you this for a reason, and the reason is that once the fissile material is acquired—we made our own over in Wallendaba 20 miles away, but if the fissile material can be acquired, the rest is really easy, really easy. Any government can do it.

Mr. SHAYS. The rest is really easy?

Ambassador GRAHAM. Really, the rest is really easy. Virtually any government could do it and many sub-national groups like terrorist organizations could do it, in their view. You don't need an infrastructure. You just need a few skilled scientists and engineers and the fissile material.

So that goes just to reinforce what everyone else has said, but here is a country that had direct experience doing it.

Mr. SHAYS. Mr. Sokolski, comment?

Mr. SOKOLSKI. I think that is the reason why the IAEA could be a heck of a lot more important than it is, because it has the job of keeping a count of the weapons usable materials that are produced literally in the open. I think it is important to keep in mind that in the case of highly enriched uranium some scientists like to joke and say, well, you need a tall ladder and a tube to assemble. I mean, I don't think it is that easy, but you are not talking about very much.

In the case of plutonium, I don't think we should look at this as one is more difficult so they will do the easier, No. 1. No. 2, so we would be OK if a terrorist got some plutonium? I don't think so. In other words, what that allows a group to do, once it has possession, is raise literally kilotons of uncertainty as to what they will be able to do, just like Iraq. You will not know. So once they give plausible reason for you to believe they stole it, you are in a world of worry.

I think, in addition, you need to understand again something which there has been not very much candor about in the official world. When I worked in the Government I had the same problem. I worked in the Defense Department. People do not want to admit that they cannot keep track of this material, even in civilian facilities that are declared and monitored by the IAEA, never mind the ones that might be hidden away. They can do only such a rough job that, in the case of a commercial-sized facility that enriches and reprocesses, you will literally they say lost in the pipes or in solution many bombs worth per year.

Now, if you focus on that point it changes the way you look at the whole problem of what to do. If you believe you can monitor and safeguard—and safeguard means not just look at, but get warning of a diversion early enough to prevent it ft being com-

pleted by getting folks to land with Black Hawk helicopters or whatever they do. Depending on how you see that, it changes everything as to what you do.

Mr. SHAYS. First I am going to just say I tend to learn the most about the terrorist threat from folks who used to work in the Government who now have a little more freedom to talk about issues when they work for a non-government organization, have their own institutions, and so on, so I really appreciate the fact that you all stayed and I thank you very much.

Mr. Spring, were you going to make a comment?

Mr. SPRING. I was going to make exactly the same point that Mr. Sokolski just made; that is, that I would be a little bit reluctant to try, on the basis of probability, and say OK, we are going to focus on the terrorist threat in highly enriched uranium at the margin compared to what might be the risk associated with plutonium because of the relative ease of assembly. I think that these guys are too unpredictable to say, OK, we can sort of net down and focus more on the HEU source than on the plutonium source. I think you could arrive at some poor policy decisions if you take that too far.

Mr. SHAYS. Let me do this. Professor, is there anything you want to say before we get you on your plane?

Mr. VON HIPPEL. No. I thank you.

Mr. SHAYS. I think we will get you on your plane, and I thank you so much for coming. I very much appreciate it. Nick is a very good man at getting taxis. Follow that man. And let's have this on the record: my staff director is helping him get the taxi.

Do you need to leave, Ambassador? Thank you very much. Any last comment that you would like to make for the record?

Ambassador GRAHAM. I can't think of anything additional that I would want to submit for the record at this point. I enjoyed the hearing very much. I thought the questions were really excellent. The answers were good, too, but the questions set the tone of the hearing. I think a lot of issues that are not discussed nearly as much as they should be got discussed today. I hope that the transcript can be drawn together in some way that can be made available to students and scholars and Government people.

Mr. SHAYS. Let me just say this to you. If I am back in this place—and I hope to be—whether I am in the majority or Mr. Kucinich, we both agree that we need to be bringing this up to a different level, and you are going to see next year, whomever, but we are going to pursue this big time, because it is a huge issue and it is not getting the attention it deserves.

Ambassador GRAHAM. These are very big issues and Congress rarely has the opportunity to address them in a detailed way as has happened today.

Mr. SHAYS. Thank you very much, and travel safely.

Ambassador GRAHAM. My pleasure. Thank you.

Mr. SHAYS. Thank you.

With the three of you that are still here, let me ask you is there anything that was brought up in the first panel, Mr. Blix, or the second panel with our Government officials that you would want to emphasize or critique in a way that says you disagreed with the

things that were said? Are there agency points that you want to make? Mr. Spring?

Mr. SPRING. I think that Deputy Assistant Secretary Semmel addressed this in his opening statement a little bit, but I would like to reinforce it, and that is that the impression can be left that the United States and, by extension, the other four declared nuclear weapons states under the NPT, are somehow at odds with or not complying with or in violation of article six. I just don't believe that. And the Blix Commission talked about the disarmament process being in disarray. I don't believe that it is in disarray.

The Blix Commission talked about an insufficient commitment to arms control on the part of the United States and talked about there being this commitment during the cold war, but the numbers of nuclear weapons were going up during the cold war and they are coming down now, and they are on their way to between 1,700 and 2,200 at the strategic level. The U.S. has gone even greater strides below that in the tactical area.

I find it hard to equate the idea that we were somehow OK during the cold war when the arsenals were going up but now we are somehow sort of ignoring these obligations under article six when they are coming down.

So I think the United States has quite a bit to be proud of in what it has done in the arms control field. There is a tangential relationship between strategic arms control between the United States and Russia today and nonproliferation policy, but I think that generally that is a positive relationship, in my view, so that I think that I would be a little bit reluctant to denigrate too much the position the United States has taken in that field.

Mr. SHAYS. Thank you.

Mr. Granoff, do you disagree or agree but you want to make another point?

Mr. GRANOFF. I disagree very vigorously that it is a little more sophisticated than that. Article six is part of the law of the land, as you know. Article six, clause two of the Constitution makes treaties the supreme law of the land, and article six of the NPT requires good faith efforts to obtain nuclear disarmament.

All of the parties to the treaty agreed, in order to gain the indefinite extension of the treaty, to principles and objectives in 1995, and included in those principles and objectives was an unequivocal commitment to the ultimate elimination of nuclear weapons, and the parties to the treaty and the negotiations forced the United States and the other nuclear weapons states to agree to 5-year review conferences at which the commitment to nuclear disarmament and the steps in that direction would be reviewed.

In 2000 there was a very productive conference and 13 practical steps were agreed upon by all parties to the treaty as a way of fulfilling the article six commitment. Now, those commitments in the year 2000 were political commitments, no doubt, and it would be bootstrapping a political commitment improperly into a legal commitment under our Constitution to say that because we made political commitments as part of a treaty they are the law of the land.

But in 2005 at the next review conference the position of our Government was that our commitments made in 2000 to fulfill article six would not be reviewed.

Now, that alone does not constitute bad faith or noncompliance, but the failure to put forward another route of fulfilling article six I believe puts us in a legally precarious position.

Mr. SHAYS. Us or everyone? The question was put to us or the other four, as well?

Mr. GRANOFF. I would say the other four would be part of it, but the other four were not as irresponsible in overtly creating unnecessary roadblocks to creating an agenda in 2005. What happened was the conference never got a working agenda. The other countries that I would say are worth pointing out would be Egypt and Iran, who also I would say were not operating to create an operating agenda. So at the 2005 review no statement could be made, nor could there be an adequate review of the kind of threat-reducing steps that were needed, steps like making it difficult for a country to use their article four privileges and drop out of the treaty. There were proposals, for example, of friends of the United States that said if a country drops out of the treaty they lose the facilities that they developed under article four. That to me would be clearly an effective and useful nonproliferation aspect. Never got discussed. Creating a secretariat for the NPT so they could have a corporate memory never got discussed. Creating some way of having some body at which complaints of noncompliance could formally be brought and evaluated, never discussed.

Essentially, the review conference was unable to review past conduct, and the U.S. kept focusing on only the nonproliferation side of the equation without putting forward an alternative route. I think it is our obligation to do that.

I feel more comfortable criticizing my own country where dissent is part of our system than criticizing others.

Mr. SHAYS. I hear you, but the bottom line is all five need to be taking action. The burden is on all five, correct?

Mr. GRANOFF. The burden is on all parties to the treaty, but the biggest burden I would say is on the P–5.

Mr. SHAYS. I would like you, Mr. Sokolski, to respond, but then I would like to ask all of you, I am not hearing clearly the comment, I am not interpreting clearly the comment that parties that aren't part of the nuclear family have a right to expect to do more, and because they are not seeing us do more they are going in the opposite direction. I don't know what the opposite direction means. In other words, that they are doing something. I am not quite sure what we are seeing them doing.

Mr. Sokolski, you were going to make a point earlier?

Mr. SOKOLSKI. Yes. I want to make sure I understand the point you just made.

Mr. SHAYS. Why don't you answer your question first.

Mr. SOKOLSKI. OK. My reading of the history—and I have written a history that has been published of the proliferation treaty effort—doesn't quite correspond to this. It is different.

Mr. SHAYS. To what? Mr. Granoff's comments?

Mr. SOKOLSKI. Yes, and even a little bit to my colleague at The Heritage. I think there is actually a very fundamental problem in reading this document, the NPT. You can read it through the lens of article six, which says we would like good faith efforts for those that declare they have nuclear weapons to disarm, or you can look

at this understanding through the lens of article four, which says—actually, there are three lenses, article four, which says everyone has a right to develop nuclear energy in a peaceful fashion, and then there is the first two articles, which says them that's got don't give and them that's not got don't try to get. Depending on which lens you pick, you end up emphasizing very different things. What we have heard is, well, you shouldn't emphasize the article six. You should.

I think you are going to have to think about three things at the same time, unfortunately. I think the emphasis needs to be placed on making sense of article four. The reason why, it is the least discussed. Everyone has talked to death about how America needs to give up more nuclear weapons, and then occasionally they say China, which is actually making more. Then you hear some discussion that really you shouldn't try to get. But you don't have a discussion of what peaceful nuclear energy is.

A reason I think that is important is the United States, this Congress, is funding something called the Global Nuclear Energy Partnership, which threatens to be roughly a bad version of Atoms for Peace, which Eisenhower promoted, on steroids, where you are really going to encourage people to get into fuel making.

Well, none of the people on the administration witness lineup focused on the problems that the IAEA has and what it can and can't do. Regrettable, Mr. Aloise didn't speak enough to that except for the staffing point because it is hard. You only have so much time. I don't know how much this committee should get into it, but somebody in this Government better, on a routine basis, build on what GAO has done—maybe it is the CIA—and do annual reports on what it is that the IAEA can keep track of and what it can't, because that goes to the heart not only of article four but indirectly, I would argue, article six.

There is no way the United States and the nuclear weapons powers are going to disarm if other people are hedging their bets and getting right up to the edge of getting bombs.

Mr. SHAYS. It is pretty alarming, though, to think that we can't keep track.

Mr. SOKOLSKI. I keep emphasizing because you are right, it is pretty alarming.

Mr. SHAYS. Yes.

Mr. SOKOLSKI. There ought to be a law. You ought to be concerned. You ought to be having hearings. I am telling you it is like talking about something that is politically incorrect.

Mr. SHAYS. If the United States had signed the Kyoto Treaty, would it be possible for us to move forward without extensive nuclear power?

Mr. SOKOLSKI. I think the short answer is you would have to because——

Mr. SHAYS. You'd have to have——

Mr. SOKOLSKI. You would have to move forward substantially without much nuclear power because most of the pollution is going to continue to be made by things that are non-nuclear. You are not going to be able to substitute everything with nuclear.

Mr. SHAYS. Well, I am not sure I understood your answer.

Mr. SOKOLSKI. The point is that the nuclear industry would like you to believe that the answer to all problems in transport, relying on oil, coal pollution caused by making aluminum and fertilizer and everything else can all be taken care of by putting nuclear reactors everywhere. That is a great thought, it is just practically impossible to do.

Mr. SHAYS. OK. But for a variety of reasons we can't deal with the waste and, and, and.

Mr. SOKOLSKI. They can't build them quick enough.

Mr. SHAYS. OK.

Mr. SOKOLSKI. And they can't be applied to everything that way because just the economics aren't there.

Mr. SHAYS. But still there is no avoiding the fact that Europe is attempting to deal with this issue through nuclear power, correct?

Mr. SOKOLSKI. No. That is incorrect. What they are doing mostly is trying to give incentives for people to figure out how to reduce emissions, and there are many ways to reduce emissions, as the British government has laid out, besides nuclear. All of the British government, for example, is suggesting it should do is maintain the nuclear power plants it has. It is not suggesting a big ramp-up.

Mr. SHAYS. OK. Let me ask you, Mr. Spring, do you have a position on the issue of nuclear electric generating power? I mean, do you believe it has——

Mr. SPRING. Let me qualify my remarks in that I am not an energy specialist.

Mr. SHAYS. OK.

Mr. SPRING. We have a separate analyst at Heritage that looks at that. I would say this: I certainly share Mr. Sokolski's concerns about article four and what we do in that and the proliferation risk associated with the generation of nuclear power, which is expressed as a right in article four.

Mr. SHAYS. Right.

Mr. SPRING. And as a free market economist——

Mr. SHAYS. Right.

Mr. SPRING [continuing]. Which Heritage Foundation generally is——

Mr. SHAYS. Generally? It is synonymous with.

Mr. SPRING. If you are subsidizing this stuff, then maybe you are not making rational economic choices, and the nuclear industry is pretty heavily subsidized in a lot of ways, including for export. And so if you were to ask me can we cut that stuff out, I would say yes.

And so let's say, for example, with the state du jour on nuclear cooperation, which is India, sure, you can have this agreement that we would cooperate on nuclear stuff, but let's look at it. Has India made a rational economic case that nuclear energy is the best option for them? Have we made a rational economic case that subsidizing nuclear exports to Iran, presumably under this agreement, makes sense for either energy production regions or for not incurring nonproliferation problems? I think that my answer is we can have the agreement but I am not sure that it would make sense to exercise it in the full panoply of what it would allow.

Mr. SHAYS. Well, let me use this to segue, since you mentioned Iran. You heard the responses in the other two panels about Iran. I would like each of you to give me your take on what Iran is doing,

No. 1, and, No. 2, what we should be doing based on what they are attempting to do.

I will start with you, Mr. Granoff.

Mr. GRANOFF. I think Iran is hedging. I think Iran is untrustworthy. I think we can learn some lessons from Iran. Iran's spoofing and noncompliance with the inspection regime should teach us that there should be a line drawn in the sand prospectively that says if a country doesn't fully cooperate with inspections it from then on loses its article four privileges. You can't apply that retroactively. We haven't shown that their program was designed for weapons purposes, but there should be a rule that this sort of conduct is simply intolerable going into the future.

Where are we now? It would seem to me that you cannot negotiate a solution if on Monday you threaten with regime change and then on Tuesday you ask somebody to cooperate and foreclose a potential military option in the future, and then on Wednesday say we are going to have regime change again. It is simply incoherent. So I think we need to have a coherence that states very clearly: do we recognize the sovereignty of this country? Have they so violated the fundamental human rights of their citizens that they have violated their right to function as a sovereign? I don't think that they have. I don't like the system of government there. I find it abhorrent. I find their human rights standards to be unacceptable. I think they have misinterpreted the message of compassion and unity that the holy prophet preached. I don't think they understand the value of pluralism. I don't think they understand the values of the modern age. I think that they are a very hazardous country. But I also look at the demographics, which are that there are a lot of young people there. So I think the extent to which we can dialog and engage, time is on our side.

In terms of nuclear, Iran shows us that to prevent the next Iran—I view it as sort of a sparks out a volcano or a canary in a mine shaft. As long as nuclear weapons are a currency of power, countries are going to want to get them. So what do we need to do? We need to have a sufficiently intrusive inspection and verification regime that will give us sufficient confidence that countries cannot use article four to break out.

The atomic audit of the Brookings Institute said that we have spent approximately $5.7 trillion on this venture without real public debate.

Mr. SHAYS. What venture?

Mr. GRANOFF. The venture of building nuclear arsenals in our country, alone. That doesn't even go to the whole world. That is $5.7 trillion. Steven Schwartz, who led that, informs me that we are spending in excess of $105 million a day now on the venture of keeping the arsenal ready and the entire enterprise.

The IAEA has never spent in excess of $105 million in a year for inspections. change the equation: robust inspections, but do not try and shame Iran. It is a country that has a martyrdom mythos and they will die before their honor will be compromised.

Mr. SHAYS. It is amazing for me to be in the Middle East and hear people talk about honor, even in the Sudan. I mean, when we were in North Darfur to hear a Governor talk about the pride of the Sudanese not tolerating any foreign troops, and there was no

discussion or concern about the loss of literally hundreds of thousands of lives. It was pride. And he said it in such a way that he expected me to be totally in sympathy with him because I would connect. So it is just very interesting.

Mr. Spring, what is your answer to this question about Iran?

Mr. SPRING. My answer to this is that I think the Iranians are, in fact, seeking a weapons capability, and I think they are playing the politics of energy at the Security Council to try and frustrate any efforts at enforcement that the nonproliferation regime lodges in the Security Council. In my judgment, that leads me back to the regional track. I think that the United States should be working very strongly with the other states in the region to make sure that Iran is politically isolated in that region to the greatest extent possible—countries like Pakistan and Turkey and Saudi Arabia and the other Gulf Cooperation Council states—and really work on that diplomacy to leave Iran as completely isolated as possible as the future that they face, and that their ambitions to lead some sort of great broader Islamic coalition in that region will come to naught if they continue down this path. I think that the regional element is a very important role to play.

Mr. SHAYS. The regional element is, but in my reading—and that is one area where I spend most of my time. I mean, when you talk to various country leaders, or in many cases I learn more by talking to their advisors, you know, some are already hedging their bets——

Mr. SPRING. I know.

Mr. SHAYS [continuing]. That Iran is going to have it. Others don't have confidence that we have the staying power. They look at the debate here at home about Iraq and believe we will leave prematurely. I have no faith that our western allies will back us up, and so an embargo done just by the United States—so I know what you are trying to accomplish; I just don't see how we could get it done. I really don't see how we would get it done.

Mr. SPRING. It is going to be very difficult, and that is why The Heritage Foundation has put so much effort into this nuclear gains exercise that my full testimony refers to that presumes a nuclear setting, presumes a proliferated setting with seven players to look at the dynamic of how these states would interact, not with the idea that nuclear proliferation is inevitable—I hope it is not—but actually to try and look at what happens in that kind of future to explain the implications for all the regional players involved as to what is at stake for them, because my judgment is that, in playing this game with real human beings assuming the roles of state leadership, is that one of the cardinal sins that they commit across the board is to assume, not understand but just assume that nuclear weapons have massive political and military benefits. They over-estimate their value initially without question. It is just unbelievable.

Mr. SHAYS. Yes. And under-estimate cost.

Mr. SPRING. And they under-estimate cost, indeed. And, of course, the United States and the Soviet Union went through that process in the early stages of the cold war, but I think we learned the lessons, fortunately, before there was a catastrophe.

Mr. SHAYS. Right.

Mr. SPRING. But in a seven-player environment I would say that it is even worse.

Mr. SHAYS. And the seven-player environment, you are not including India or Pakistan? what is the seven-player environment?

Mr. SPRING. Well, the seven players can be applied to any region. The first study that is on our website looked at it in a model, not exact duplicate, but a model of the East Asian with North Korea, China, Japan, Taiwan, the U.S., and Russia essentially being the players of unequal strength.

We have grafted the game in a Middle East version where the players are roughly equivalent to Israel, Iran, Turkey, Pakistan, Saudi Arabia, Russia, and the United States.

Mr. SHAYS. Mr. Sokolski, did you want to weigh in on this issue with Iran, and then I am going to ask the question. Maybe I can ask you to elaborate and just quickly come back to Mr. Granoff and Mr. Spring. What happens to Egypt and Saudi Arabia if Iran gets a nuclear weapon? So why don't you tell me how you think we should be dealing with Iran.

Mr. SOKOLSKI. First, seven sounds pretty good to me. You are looking at a world that is going to have seven, seven, seven, and seven. Your model is 1914, trying to keep track of a lot of folks gaming the system, thinking that a quick war or whatever they have in the way of military capability will win if they get in trouble and that they can diplomatically figure things out. The problem with the spread of nuclear weapons capabilities is the stakes for failure exceed what we experienced in the First and Second World Wars, what we have to worry about.

I think that is the reason why he is doing the study and probably even telling his own people I love missile defense, but that isn't the entire answer. And for someone at Heritage to say that means you had better be listening, because that comes hard. Am I right?

Mr. SPRING. You are right.

Mr. SOKOLSKI. OK. I mean, here we are. You are on a panel with somebody I am thinking probably doesn't vote Republican all the time, right? I am talking about you. But they are agreeing on something. I think that should be noted.

Mr. SHAYS. Well, they are disagreeing in terms of how to deal with Iran, though.

Mr. SOKOLSKI. Well, let's get on with that.

Mr. SHAYS. They want to deal with Iran, but they are going in two different directions.

Mr. SOKOLSKI. Well, but let's get on with that.

Mr. SHAYS. Yes.

Mr. SOKOLSKI. I think first I would endorse adopting the French suggestions, and the reason I do is those suggestions about how to tighten up the enforcement of the NPT came as a result of meetings that actually my center was involved in 4 years ago, and these people are listening and innovating, and when they are right we should back the French. I can get you more information on that. It is even cited in the testimony. But that is what you are referring to, the non-paper that was given at the NPT Review Conference. I see nods, so that is one.

Mr. SHAYS. OK. Speak to about what Egypt and Saudi Arabia does.

Mr. SOKOLSKI. Trouble. Saudi Arabia has publicly said that it is studying whether or not to lease or buy nuclear weapons from China and Pakistan. Now, what billboard do you need to get the story that gee, that could be a problem.

Turkey has made it very clear that, well, you know, we have pipeline problems. And, by the way, they do. But oh, by the way, since they were involved in all those Pakistani Kahn problems, they are also folks who, when they look at the European Union, which they probably are never going to get into—I mean, think about that—may want to hedge their bets to get a little leverage.

Egypt, if you think that the Israeli Prime Minister is speaking straight when he says not a problem——

Mr. SHAYS. What's not a problem?

Mr. SOKOLSKI. Egypt. Egypt has already announced that they want to get more nuclear energy. That is code for the bomb. It is clear as day.

Now, the people at this table and the panel one or panel two probably wouldn't say that, but if you talk to Egyptians about that speech—and I can get you people who read Arabic—they will tell you that speech a few days ago by the heir apparent, Mubarak's son, is a signal. We are not going to let Iran have the bomb option, alone. And the reason why is Iran clearly wants to do this much. Look at their missile program. Forget the nuclear weapons for a moment. Look at the range arks. Those are diplomatic shadows over the region, and they intend to keep you guessing as to what they can load up on those things. That is the reason why Europe is getting a little nervous, because pretty soon, believe it or not, they are going to be in range with the latest follow-on missile, the Shahab–4.

Mr. SHAYS. Well, you can fool me that they are getting concerned.

Mr. SOKOLSKI. Oh, no. The French government paid to have me come out and talk with people in Defense Ministry about an entire——

Mr. SHAYS. That shows they are desperate, right?

Mr. SOKOLSKI. No, no. Well, it does that, too. I will agree. But I had a sort of plan, if you will, for—you know, the Iranians play chess. I understand they invented it. I don't know much about it because I don't speak Farsi. We play checkers probably compared to them. What you have to figure in chess is you have to be able to think three moves minimum. If you don't think three moves, I understand you can't play the game. You are just a victim. We are thinking one move, practically. The moves you have to think about—and here are some things you could do. You asked what we should do.

Mr. SHAYS. Right.

Mr. SOKOLSKI. First of all, in the international basket the IAEA has a right under the additional protocol to what is called wide-area surveillance. That means they can go lots of places, put up sensors, send in inspectors. Guess what they haven't budgeted for? Standing up a force that could go into places like Iran with maybe 200 sensors. They will be crappy sensors. Don't get me wrong. This will not be a silver bullet. But there is nothing. They have not even done a bad job of standing up a wide-area surveillance capability.

They need about $10 to $20 to $30 million. Guess what? They can't raise it because, well, everyone would be upset if we raised the fees. A spotlight needs to be put on that. That is outrageous.

Mr. SHAYS. Is the implication—and I want to get to the other members—is the implication, in terms of raising dollars, that, while we are willing to put some more money in, there is very little concern on the part of the other member nations to contribute?

Mr. SOKOLSKI. I don't think there is enough. I think the French government, I think the German government, for a lot of complicated reasons, and the British government are interested, and I would not under-rate what certain elements in those governments are willing to do, because when I talked with them they were interested about the very thing that I think someone here took offense to. Maybe we need to buildup our forces in the region to enforce the law of the sea, which even Iran subscribes to, so that, instead of them threatening to close the straits, which is the strategic center of gravity—it is that oil that we have to worry about—maybe we could ruin their surviving such an embargo and imposing it.

Now, that leads to a whole lot of other things you have to do. You have to make sure you can get the oil out of that region without going through the strait. The French and the GCC nations are focused on that like a laser beam. It means connecting certain pipes. It is not heroic.

Mr. SHAYS. Let me just get to North Korea. Did you want to say something briefly?

Mr. GRANOFF. Briefly. Resolution 687, which was the enabling resolution of the Security Council for the first Gulf War——

Mr. SHAYS. Right.

Mr. GRANOFF [continuing]. In section 14 called for creating a weapon of mass destruction free zone in the Middle East. Iran has been calling for that. Egypt has been calling for that. We have just simply been ignoring it.

Mr. SHAYS. What does that mean? That Israel has to basically——

Mr. GRANOFF. Well, obviously Israel is not going to join the party right away, but it would seem to me that it would be in our benefit to start a confidence-building series of conferences in the region amongst the parties because regional parties like Egypt don't want to see a total breakdown.

Mr. SHAYS. Does it impact the United States? In other words, I make assumptions that we don't have a nuclear weapon on our carriers or—well, maybe I shouldn't on our submarines.

Mr. GRANOFF. The effect on the United States to me would be to lower the saliency of nuclear weapons in the region would be very much in our interest, but Israel is a strategic partner and I don't think we want to really open up the can of worms of having a full-scale discussion about it. I think it is time. [Latin phrase.] I think it is time to put the truth out: Israel is not going to join——

Mr. SHAYS. So it is primarily an issue of dealing with Israel is what I was trying to——

Mr. GRANOFF. Exactly, and, of course, that is Egypt's sub-text when they are saying they want to have a weapon of mass destruction free zone in the region, and Iran's. But the fact is that they also have interest, as you point out. Egypt is a Sunni country. Iran

is a Shi'a country. They still live with the shadow of karbala over their heads. They haven't given that up. It is like Sherman's march. It happened yesterday for some people. I think we have to be sensitive to those dynamics. And so there are parties in the region, for their own interests within the Islamic world, who have an interest in making sure weapon of mass destruction don't proliferate, and I think we should take advantage of that because I think it is a good thing to stop it.

Mr. SOKOLSKI. Don't they have an interest in making sure that they identify Israel as having nuclear weapons? You want to be careful to promote confidence-building measures. I mean, Blix had a better idea, which is no reprocessing, no enrichment. Once Israel admits it has nuclear weapons, all hell will break loose there. Particularly the Egyptians will feel like they have to get them if they even admit it.

Mr. SHAYS. OK. Let me just ask you about North Korea. Our panelists I think said North Korea is a bigger problem. What it raises for me, the concept that you can practically snap a finger and Japan could have a nuclear program. So what that has gotten me to think about is just the fact that Japan, what, has so much material close to being weapons grade, and that is because, what, their nuclear generation, or are there other——

Mr. SOKOLSKI. We gave them a green light back in the 1980's. When I first came here and worked for Senator Gordon Humphrey—that is a long time ago—there was an agreement that we reached with Japan that let them strip out weapons-useful plutonium from spent fuel as a fuel spent fuel management technique. It wasn't economic. Still isn't. They have gone ahead and, as a result, they are piling up tons of weapons-usable plutonium, and they can't figure out what to do with all of it.

The Chinese looked at that, and the Chinese have a big stockpile of weapons-usable material, as well, and they are looking at one another, and that North Korean drama is a staged rehearsal for that bigger competition.

Mr. SHAYS. But that is why the United States gets criticized for acting unilaterally, and we want with North Korea to act multilaterally because we believe that Japan and China and Russia and South Korea have something at stake here. The irony is that we are getting criticized for it, which is amazing to me.

Mr. SOKOLSKI. I think it is because people look at those six-party talks and they look at North Korea and they say this dog isn't going to hunt very much. I think there needs to be a flash of candor that everyone is sort of saying sub-text, which is ultimately you are going to have to wait North Korea out, much as you did with the Soviet Union. I mean, it is not going to be——

Mr. SHAYS. No, no. We are not going to wait them out if they are going to develop a weapons program and then Japan decides they have to.

Mr. SOKOLSKI. That is where what you need to do is some of the things that the French are suggesting and isolate North Korea so it doesn't become an example for the others where it is either rewarded or we do nothing when it violates, No. 1.

No. 2, yes, hold Japan close. I am sure, you know, our friend from The Heritage has lots of suggestions on how to enforce the alliance with Japan.

Second of all, take a page out of the suggestion made right here. I think you mentioned China. Perhaps it is time to lean on China to stop being so unclear about the size and growth of its nuclear arsenal. I mean, everyone else is much more transparent, even the Russians. Even the Russians are more transparent, which is saying a lot. We are not focusing on that topic.

Mr. SHAYS. Mr. Spring, what about North Korea?

Mr. SPRING. I think that Mr. Sokolski set the table for me very nicely. I think that what is really key here on the part of the United States is those positive security assurances that we provide our friends and allies in the region. That is one of the things I think that will really convince the Japanese to continue with their current policy with regard to not obtaining nuclear weapons, because they have the capability to do it very, very quickly, but they don't have, at least in the body politic as I look at Japan, the appetite to do that. But they will seek and they are seeking reassurance.

I think, as a result of the situation with both China and North Korea, Japan has as close a security relationship with the United States as I can remember right now. So reinforcing the positive security relationship between the United States and Japan to foreclose a weapons incentive for them I think is a key element to addressing the problem.

We played this same nuclear game I am talking about with Japanese nationals just in August, and the Japanese national player who was playing the Japanese equivalent player opted immediately to dispense with the nuclear weapons that the game assumed that he had at the outset. In other words, he went back to being a nonnuclear state, and at the same time he moved very strongly in the relationship with the United States, and it worked.

He was able to avoid a direct nuclear conflict with either China or North Korea with the over-arching security relationship with the U.S., and it was based in part on the U.S. nuclear umbrella, it was based in part with regard to nuclear nonproliferation and arms control efforts that the U.S. was pursuing diplomatically—and we kept diplomatic records of what was going on—so that dynamic did play it out and Japan did not suffer for its decision that would presumably be irrational at one level, at least, that you look at it to say OK, even though all these other countries have nuclear weapons it is presumed in this game I am going to get rid of mine. I am just going to get rid of them.

Mr. SHAYS. Mr. Granoff?

Mr. GRANOFF. I had the privilege of being a guest of Kim Dae Jung and Mikhail Gorbachev in June, this past June, in Quan Ju, Korea, which was the birthplace of the democracy movement. They were celebrating the 20th anniversary of the democracy movement there, and they had a summit of Nobel Peace laureates. At those gatherings there were over 100 leaders from the industrial community of North Korea, the Minister of Unification of North Korea, and the Minister of Unification of South Korea, President of South

Korea, and there was 2 weeks of deliberations specifically on these subjects.

I learned much more than I had expected. As you might know, Kim Dae Jung was the author of the Sunshine Policy reaching out to North Korea and pushing for unification. The South Koreans know that if there is going to be unification they have to ensure that there won't be the economic shock that took place in East and West Germany. It would be even far greater. So there was a large number of businessmen there who were looking to invest in factories and trade with North Korea to try and normalize the economic disparity between the north and the south.

It was also clear to me that there would be no unification if there are nuclear weapons in the peninsula, because South Korea has a very high interest in maintaining the nonproliferation aspects of the NPT. They know that if they were to have unification with nuclear weapons that Japan would be forced to follow suit, etc.

So the kind of proposals that these learned people in the region informed me of—and I have shared this with the committee in my submission—talked about increasing trade. There is a railroad line that has already been laid.

Now, while this was going on, if you look at the chronology, while these talks were going on North Korea did those missile tests. So what I concluded from that is there is a divided house in North Korea. There are clearly elements there that want to maintain the status quo, a status quo in which the North Korean people suffer tremendously, and there are also people who realize that the conditions of their people are a remnant of the cold war that they need to overcome. I think we should help those people reach out and increase trade, increase normalization, and isolate their military neanderthals.

Mr. SHAYS. I would like to bring this to a close, but let me just ask you, so when I look at Iran, they could have a nuclear program, but when I look at Japan, they could have a nuclear program. It is quite different. You know, it is quite a different motivation and direction. Is there any other country in the world like Japan that is accumulating massive amounts of potential weapons grade material?

Mr. SOKOLSKI. Sure. You have reprocessing going on in weapons states, so that is good news.

Mr. SHAYS. OK.

Mr. SOKOLSKI. You have the Netherlands, Germany doing enrichment, which means if they leave the switch on on the machine it could go up to weapons level. There are a number of countries that are making enrichment facilities—Argentina, Brazil, South Africa, Ukraine—who want to be considered nuclear fuel supplying nations under our program, the Global Nuclear Energy Partnership. Canada, Australia have voiced interest in making sure they get on the right side. So I think you have 15 years. If you——

Mr. SHAYS. In a sense, isn't that just as concerning in a sense, if not——

Mr. SOKOLSKI. I have been trying to say all throughout my testimony nuclear fuel making is nuclear ready. Nuclear ready is as much of an uncertainty generator as the bomb itself. If you wink or encourage this or don't think through the security risks, you buy

the farm. You are absolutely culpable if you let this continue. We did it for the last 40 years. We winked at Japan. We winked at the Netherlands. We winked at Germany, Brazil, South Africa. Now the bill is starting to come due because people are saying, well, why not us.

Mr. SHAYS. OK. I think you may have started to answer the question I asked in a very confused way when we were talking about other countries looking at the United States and not taking the NPT seriously. They are seeing a number of particularly western European countries, some of the more developed South American countries—I was thinking at least South America is a nuclear free zone, but what you are telling me is——

Mr. SOKOLSKI. No, sir. I know too much. I worked in the Pentagon dismantling program secretly with the Argentinian government because they did not know what was going on with the rocket program, and with Brazil it was basically having their military dig a hole for a test. So it is all good and well to hope that no one that renounces will ever change their mind again, but we are all human.

Mr. SHAYS. Let me do this. This has been a great hearing. It sure makes me want to be back here. Why don't I just ask is there anything we should have put on the record we didn't, and is there anything that you want to emphasize to make sure we get it? I will start with you, Mr. Sokolski.

Mr. SOKOLSKI. I guess since I talked so much and I went over I am only going to make one request.

Mr. SHAYS. What is that?

Mr. SOKOLSKI. We are having a meeting co-sponsored by the French government. One of your staff wants to come. I hope he can come.

Mr. SHAYS. And where is that meeting?

Mr. SOKOLSKI. In Paris. And we are actually getting a Congressman to come.

Mr. SHAYS. When is that going to be?

Mr. SOKOLSKI. The 13th. That is the problem.

Mr. SHAYS. The 13th of?

Mr. SOKOLSKI. November.

Mr. SHAYS. Well, we will see you get a staff there.

Mr. SOKOLSKI. All right. Now, I get a percentage of his pay don't I? [Laughter.]

Mr. SHAYS. No. Well, you know what, I am sure it will be an excellent conference.

Mr. Granoff.

Mr. GRANOFF. I will be leaving here and going to Ottawa tomorrow for a gathering of 25 middle-power countries.

Mr. SHAYS. I thought you were going to ask me if you could be one of my staff so you could go to Paris.

Mr. GRANOFF. I would be honored.

Mr. SHAYS. You are not thinking.

Mr. GRANOFF. I would be honored. There will be 25 middle-powered countries, countries with good human rights records, countries friendly to the United States, countries that have renounced nuclear weapons, and countries that want to see progress on article six. In fact, it is called The Article Six Forum. It is convened by

the middle powers initiative. That is where Dr. von Hippel was flying off and Dr. Blix, as well.

Mr. SHAYS. Where is that going to be?

Mr. GRANOFF. Ottawa. Foreign Minister MacKay will be giving an address on Thursday morning. The focus will be exactly what we are talking about. So this is a matter in which our friends are calling for progress.

My deepest concern is that during the cold war there was some kind of qualified morality to the posture to the weapons. The logic was we have the weapons to ensure they won't be used. But there have been statements that have come out in recent years from our administration that indicates a backing away from that moral condemnation of the weapons and seems to indicate that it is not so much the weapons that are at issue but making sure the weapons are only in the hands of our friends.

Now, this moves from the standard of the unacceptability of these horrific devices and from the power of law to the raw law of power, and countries that are friendly with us 1 day may not be friendly the next day. This is not the way to set a global norm, sort of taking the National Rifle Association philosophy at large: it is not the weapons, it is the people.

But with nuclear weapons I think it is the weapons. I think that they are intrinsically incapable of distinguishing between civilians and combatants. I think that they are of a different caliber because of their effect on future generations. I think that we need to start thinking of nuclear weapons as something like the way we look at biological weapons, like the plague. It is not a benefit in anybody's hands.

But by no means can we just get rid of them overnight. We have to build an edifice of peace and cooperation and security in the same way as we have built this edifice of destruction.

I think that if we would say what are the criteria for building that edifice, do the steps enhance security, do they enhance law, do they stand on their own merits, and if they do and they follow on that compass point of disarmament—it is a compass point, not something we can reach overnight, but if it follows on that compass point I think we have to say that is in our interest. If we don't, we are going to be breeding incoherence.

The Middle East, now that we have legitimized Pakistan's weapons, why would there not be a Middle East Treaty Organization like NATO with nuclear sharing? What is our argument against that? It is dangerous? It is de-stabilizing? Well, I mean, we have it in NATO.

So I say let's get back to the principles of law that our country stands for and the principles of morality that our country stands for. That is in our security interest and that is the right thing to do.

Mr. SHAYS. Thank you very much.

Mr. Spring?

Mr. SPRING. Just two quick sort of practical things that I think that everybody in Congress has reached. One is that during the cold war there was a rather sharp divide between people who were regional specialists on the one hand, for example, in the State Department's Regional Bureau, to just take one department at a time

here, versus the functional people that worked on arms control and nonproliferation matters.

I think that there is a natural coming together with that, but I think it is something that Congress could probably help accelerate, and that is putting together real teams of functional and regional specialists to hash these issues out, because they have to be done in tandem, I think, now that the division that we had during the cold war between regional and functional isn't going to be as workable. It is not a huge step. It is a matter of really encouraging, you know, different ways of looking at how to handle issues within the bureaucratic wire diagrams, if you will, and I think that would be useful.

The other is that what I see is going to be the next sort of ideological battle on this entire arms control nonproliferation front, which is one that Representative Kucinich raised, which I think is really a ruse, which is the weaponization of space issue. I think it is really artificial. I don't think it really comes to the heart of the concerns the United States should have for security. I think that the nuclear proliferation issue is much more important. I think almost as important are the other issues related to the proliferation of weapon of mass destruction.

Mr. SHAYS. Let me be clear though. Are you advocating that there be nuclear weapons in space?

Mr. SPRING. No, not nuclear weapons. The weaponization of space thing is going to be really driven about missile defenses.

Mr. SHAYS. OK.

Mr. SPRING. And also the survivability of U.S. military systems to support tactical operations from space.

Mr. SHAYS. Is this in the end just to make sure—I wanted to make you smile, not look so serious. So you are just putting in a word that, while you think it is far more serious to deal with nonproliferation issues, you are saying that a defensive system is not something we should just dismiss.

Mr. SPRING. Exactly. That is exactly right. And it has to be really in space, in my judgment, because that is where the missiles fly.

Mr. SHAYS. OK.

Mr. SPRING. The missiles fly in space.

Mr. SHAYS. OK.

Mr. SPRING. And so we are talking about non-nuclear defensive systems that we would have in space, and also the same technologies go into making survivable our overall satellite networks that support very important tactical military operations all over the world.

Mr. SHAYS. OK. Let me just say that Mr. Granoff disagrees, but I am not going to give him the opportunity to speak because I want to close this hearing up, but you do have the last word.

Gentlemen, all three of you have been delightful, tremendously informative. I think my job is to listen, to learn, to help, and to lead, and I think you are helping me be a better leader and ultimately the Congress by your contribution to this afternoon and tonight, and I thank you all very, very much.

With that I also thank the transcriber for stepping in and reminding me once again not to forget to swear in our witnesses.

With that, we will adjourn this hearing. Thank you all very much.

[Whereupon, at 7:37 p.m., the subcommittee was adjourned.]

[Additional information submitted for the hearing record follows:]

The Nuclear Nonproliferation Treaty

And

Peaceful Nuclear Energy

By

Henry Sokolski
Executive Director
The Nonproliferation Policy Center

Just because a nuclear activity or material can be used for peaceful purposes does not mean that any member of the NPT has an unconditional right to pursue or acquire it especially when the activity or material in question might bring it within days of having a bomb.

In making this argument, I side with President Bush who, in his February 11, 2004 speech on nuclear nonproliferation, complained that states like Iran have "cynically manipulated" the Nuclear Nonproliferation Treaty to acquire all they need to acquire nuclear weapons under the guise of developing peaceful nuclear energy. UN Secretary-General Kofi Annan made the same point at the NPT Review Conference last May, when he warned against subverting the NPT's purpose by reading into it an unqualified guarantee for all to acquire the most dangerous forms of nuclear energy.

Their view, as well as that of legal authorities, diplomatic historians, and officials closely involved in the negotiation and ratification of the NPT, is that the treaty neither recognizes nor protects such a *per se* right, but rather affirms a right to peaceful nuclear energy that is logically and legally qualified in at least three respects.[1]

Noncompliance

First, by definition and by the explicit proscription of Article IV of the NPT, no nonweapons state that is a member of the NPT can enjoy the right to develop, produce or research peaceful nuclear energy if they use it "to manufacture or otherwise acquire nuclear weapons." Instead, states that exercise their right to peaceful nuclear energy must do so "in conformity" with the NPT's prohibitions in Articles I and II against acquiring or sharing nuclear weapons and related technology or materials.

Our government has emphasized this point in making its case for reporting Iran's nuclear misbehavior to the UN. Iran, U.S. officials insist, is making a bomb with technology and materials that Tehran claims it is developing for the purpose of generating civilian nuclear energy. Iran's covert bomb making activities are a clear violation of Article II of the NPT, and, therefore, Iran is in noncompliance with its NPT obligations and should be reported to the UN. Some are persuaded by this argument. Others, including Russia and China, are not.

Fortunately, U.S. officials have made another argument that enjoys much broader support. Iran, they point out, has violated its International Atomic Energy Agency (IAEA) nuclear safeguards obligations. These violations serve as grounds for action under Article 12 c. of the IAEA's Charter Statute. Article 12 c. provides that in cases in

1. The thoughts expressed here rely heavily on the substantive historical and legal analyses of Albert Wohlstetter, Arthur Steiner, Eldon V.C.Greenberg, and Paul Lettow.

which the IAEA Board of Governors finds a member to be in noncompliance, the Board shall report the noncompliance to the United Nations Security Council (UNSC). [2]

It is this argument that the U.S. and its friends are relying on to move the IAEA Board of Governors in its upcoming meeting March 6 formally to report Iran's noncompliance to the UNSC.[3] As you noted in your invitation to testify before this committee, some have questioned if failing such a finding of noncompliance, any NPT member's right to develop, research or produce peaceful nuclear energy can or should be restricted. If Iran declared its enrichment and reprocessing activities as it should have, would we have any grounds to find Tehran in noncompliance failing some "proof" that it was developing or acquired nuclear weapons? The position of the U.S. State Department's Legal Division—along with the Foreign Ministry of Iran—is that the answer is no.

Why Merely Declaring Nuclear Activities Is Not Enough

Although this State Department legal interpretation may be soothing to nuclear fuel making states like Japan, Germany, the Netherlands, Brazil, and South Africa, it ultimately turns the NPT on its head. Certainly, if we are serious about using the treaty to prevent states from getting within days of acquiring an arsenal, it is too narrow a reading.[4] One begins to appreciate how untenable this constricted interpretation of the NPT is when one examines the much sounder position the U.S. State Department simultaneously maintains regarding the limits on what nuclear technology NPT member states should supply to others. Speaking from a cleared text before the NPT Review Conference last May, the U.S. representative to these talks explained:

> Parties are not compelled by Article IV to engage in nuclear cooperation with any given state -- or to provide any particular form of nuclear assistance to any other state. The NPT does not require any specific sharing of nuclear technology between particular States Party, nor does it oblige technology-possessors to share any specific materials or

2. Article 12 c. of the IAEA Statute also provides that "In the event of failure of the recipient State or States to remedy forthwith any non-compliance," the Board may further "direct curtailment or suspension of assistance being provided by the Agency or by a member, and call for the return of materials and equipment made available to the recipient member or group of members" The Statute also authorizes the Board to suspend any non-complying member from enjoying the rights and privileges of IAEA membership.

3 . Some contend that because the NPT's Article III stipulates that IAEA safeguards "shall be followed," a determination by any NPT member of noncompliance of IAEA safeguards by any other state should serve as sufficient grounds for finding that state in noncompliance with the NPT, without a finding of a majority of the IAEA Board of Governors. This position, though, has not yet been tested.

4. See, Albert Wohlstetter, "Spreading the Bomb without Quite Breaking the Rules," *Foreign Policy* , (25, Winter 1976-77).

> technology with non-possessors. Indeed, to conform both to the overall objective of the NPT -- strengthening security by halting nuclear proliferation -- and to any Article I and III obligations, supplier states must consider whether certain types of assistance, or assistance to certain countries, are consistent with the nonproliferation purposes and obligations of the NPT, other international obligations, and their own national requirements. They should withhold assistance if they believe that a specific form of cooperation would encourage or facilitate proliferation, or if they believe that a state is pursuing a nuclear weapons program in violation of Article II, is not in full compliance with its safeguards obligations, or is in violation of Article I. [5]

Here, the State Department correctly argues that the NPT's call on parties "to facilitate ... the fullest possible exchange" of technology for the peaceful uses of nuclear energy should in no way be viewed a being a requirement to supply any specific nuclear technology to any specific member and that, instead, just the opposite applies . History clearly backs this position. In fact, two separate proposals during the NPT's final negotiation, one by Spain and another by Mexico, to amend the treaty's text to *require* the nuclear weapons states to provide non-weapons state members with "the entire technology of reactors and fuels" were rejected. The UK representative noted that these were "too sweeping".[6]

The question is why. A technical as well an historical answer is available in the record of the Eighteen Nations Disarmament Committee (ENDC) talks in Geneva in which key negotiations relating to the NPT were conducted. Here in 1966, the Swedish representative, Mrs. Myrdal, warned:

> To prohibit just the final act of 'manufacture' would seem to come late in these long chains of decisions. On the other hand, already to probe the preliminary thinking of politicians and the laboratory research of scientists obviously is as difficult, as it would be considered an undesirable intervention. Could a middle link be found on which the prohibitory regulation should most definitely be focused? . . . [M]ust not regulations about effective controls be linked with certain definitive and uncontestable steps, such as actual purchases of nuclear reactors, fuel elements and so on

---

5. USUN Press Release #101 (05) May 19, 2005, Statement by Christopher Ford, Principal Deputy Assistant Secretary of State, Bureau of Verification and Compliance, on Article IV, in the Third Committee of the 2005 Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons, May 19, 2005.

6. See Arthur Steiner, "Article IV and the 'Straightforward Bargain'," PAN Heuristics Paper 78-832-08, in Wohlstetter, et al., *Towards a New Consensus on Nuclear Technology*, Vol. II (Supporting Papers), ACDA Report no. PH-78-04-832-33 (Marina del Rey, Calif.: Pan Heuristics, 1978), pp. 1-8.

> from abroad, and/or the establishment within a country of such installations as plutonium separation [reprocessing] plants and the like? These problems are so important that no effort should be spared in order to establish our positions as exactly as possible. I trust that we all agree that no 'loopholes' should be left for misunderstandings or contradictory interpretations.[7]

Although, Mrs. Mydral's questions were never fully answered by the Committee, they clearly were raised and were among the key reasons why the Spanish and Mexican proposed amendments were subsequently rejected. More important, these observations suggest why the NPT can hardly recognize a per se right among any non-weapons state member to develop "the entire technology of reactors and fuels" without running afoul of the treaty's clear Article II stricture against manufacturing or otherwise acquiring nuclear weapons.

Most diplomats have tried to extricate themselves from the dilemma that many civilian nuclear activities can bring nations to the very edge of bomb making by simply contending that all declared civilian nuclear facilities or materials – whether they be reactors, enrichment or reprocessing plants or weapons usable nuclear fuels – are "peaceful" and protected by the NPT once they are placed under IAEA inspections. This view, which is quite popular today, however, is, as will be explained below, an incomplete understanding of NPT's actual provisions and intent.

Safeguards

This brings us to the second qualification on a nonweapons state's "inalienable" right to peaceful nuclear energy, which is that it must involve nuclear materials or activities that can be safeguarded. As Article IV stipulates, the right to peaceful nuclear energy will be exercised "in conformity" with Articles I and II. Article II's prohibition against nonweapons states acquiring or manufacturing nuclear weapons, though, is to be verified by adherence to Article III, which requires nonweapons states to "accept" and "follow" IAEA safeguards on all their key nuclear activities and materials. It is for this reason that the NPT Review Conference in 1995 determined that the right to peaceful nuclear energy is qualified not only by Articles I and II, but by Article III as well.

It would be comforting to think that whatever nuclear programs the IAEA inspects are actually safeguarded against being used to make bombs. Recent experience with Iran, however, suggests that this view is unwarranted. First, the IAEA's cannot always find covert nuclear activities. In Iran's case, the IAEA missed an entire "peaceful" uranium enrichment program for nearly 20 years. Second, certain nuclear activities, such as

---

7. Speech by Mrs. Myrdal (Sweden) in Plenary Session 243 on 24 Feb. 1966 in *Further Documents on Disarmament: Ninth Session of the Eighteen-Nation Committee on Disarmament,* 27 January to 10 May 1966, Cmnd. 3120 (1966) (U.K.) at 81-82 cited in the May 2005 unpublished history of the NPT and Article IV by Paul Lettow.

nuclear fuel making, can bring states, such as Iran, so close to acquiring nuclear weapons, inspections could hardly provide sufficient warning to other states to prevent Iran from completing a military diversion to make bombs.

In fact, both of these caveats are addressed in the NPT. Under Article III, the purpose of safeguards is explicitly specified as being to verify "fulfillment of ... obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons." Monitoring procedures authorized by the IAEA that fail to meet these objectives, then, may be inspections but they are not safeguards and, as such, the activities and materials subject to such monitoring ought not to be presumed to be peaceful and, therefore, protected under the NPT.

What sorts of nuclear activities and materials are likely to fail to admit to being monitored in a manner that would meet the NPT defined purpose of safeguards, i.e., of preventing diversions and verifying states' pledges not to make bombs? Two sorts at least: Nuclear activities of a clearly uncooperative nonweapons state, such as Iran or North Korea; and nuclear processes and materials that can be converted to make bombs so quickly that reliably preventing their diversion with inspections is improbable in the extreme. Here, any nuclear fuel making activity involving direct nuclear use materials, such as highly enriched uranium, separated plutonium, or mixed oxide fuels, would have to be included. Also, the enrichment of uranium, especially enrichment involving the use of centrifuge systems, a process that can turn from the production of lightly enriched uranium to making bomb-grade fuel overnight, would have to be included as well. Finally, any large reactor that requires either significant quantities of fresh lightly enriched fuel or generates plutonium-laden spent fuel would also be too risky in any nonweapons state in which one was uncertain if it had a covert enrichment or reprocessing program — programs which could be ramped up with the quick seizure of these materials.[8]

---

8. On these points, see Thomas B. Cochran, "Adequacy of IAEA's Safeguards for Achieving Timely Detection," presented at a conference "After Iran: Safeguarding Peaceful Nuclear Energy," sponsored by the Nonproliferation Policy Education Center and King's College London October 2-3, 2005, available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=Paper050930CochranAdequacyofTime&PDFFolder=Essays; Edwin S. Lyman, "Can Nuclear Fuel Production in Iran and Elsewhere Be Safeguarded Against Diversion?" paper presented at a conference "After Iran: Safeguarding Peaceful Nuclear Energy," sponsored by the Nonproliferation Policy Education Center and King's College London October 2-3, 2005, available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=Paper050928LymanFuelSafeguardDiv&PDFFolder=Essays; and Victor Gilinsky, *A Fresh Assessment of the Proliferation Dangers of Light Water Reactors,* October 22, 2004, available at http://www.npec-web.org/Frameset.asp?PageType=Single&PDFFile=Report041022%20LWR&PDFFolder=Reports.

Benefits

A third condition on one's exercise of the right to peaceful nuclear energy is implicit in the NPT's preamble language extolling the "benefits" of peaceful nuclear energy. That condition is that the nuclear activity in question actually be one that can produce some economically measurable advantage.[9] This is a much softer point than the two previously discussed conditions, but it too is significant. Certainly, one of the persistent and reasonable complaints that U.S. officials have made about Iran's construction of its large power reactor at Bushehr and of its nuclear fuel making facilities is that neither make any economic sense. Certainly, no private bank would finance such programs on their own merits. This one of the key reasons why Iran's claims that its nuclear activities are "peaceful" have rightly raised so many doubts. Any nation's development of civilian nuclear energy, then, comes under suspicion the more uneconomical it is or becomes.[10]

Implications

The first and most obvious implication of backing this set of tougher, sounder views of the NPT and peaceful nuclear energy is that promoting them will upset nonweapons states, such as Japan, the Netherlands, Germany, South Africa, and Brazil, whose nuclear fuel making activities the U.S. has already blessed. For them, such a reading of the nuclear rules will be seen as a step backwards. Joining in their likely protest against such a reading will be those states, such as Australia and Canada, which are now contemplating nuclear fuel making, as well as a large number of developing nations which will object to any further restrictions on potential nuclear activities.

One partial response to their objections would be to argue that with time, we have come to learn more about the limits of IAEA inspections and the increased ease that countries now have in making nuclear arms. Certainly, there is no good reason to make our past

---

9. See Eldon V.C. Greenberg, *The NPT and Plutonium: Application of NPT Prohibitions to 'Civilian' Nuclear Equipment, Technology and Materials Associated with Reprocessing and Plutonium Use* (Washington, DC: The Nuclear Control Institute, 1993), available at http://www.npec-web.org/Essays/Article930507%20Greenberg%20-%20The%20NPT%20and%20Plutonium%20-%20May%207%20%201993.pdf. [DELETED DEAD HYPERLINK.]

10. As the French government explained in the lead up to the NPT Review Conference of 2005, the economic rationality of a nuclear activity is directly relevant to the achievement of the NPT's nonproliferation objectives. See *Strengthening the Nuclear Non-Proliferation Regime*, Working paper submitted by the French Republic to the Preparatory Committee for the 2005 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, NPT/CONF.2005/PC.III/WP.22, May 4, 2004, available at http://www.iaea.org/NewsCenter/Focus/FuelCycle/france_npt2004.pdf.

mistakes hereditary by grandfathering dangerous nuclear activities in such nonweapons states.

Persuading these countries that their right to develop peaceful nuclear energy does not necessarily entitle them to pursue any specific nuclear activity, though, will not be easy. As with encouraging other states to open their nuclear facilities to routine IAEA safeguards and to adopt the Additional Protocol, the example that the nuclear weapons state members of the NPT set will be important. Certainly, if the U.S and other nuclear weapons states are unwilling to subject their own civilian nuclear activities to some of the same conditions that a sound reading of the NPT requires, the chances that these conditions will be sustained by others will be much lower.

In this regard, the U.S. and other nuclear weapons states under the NPT would do well to avoid expanding their net nuclear fuel making capacity unless there is a clear market economic imperative to do so. Here, the recently proposed Global Nuclear Energy Partnership needs to be approached with caution. Funding research and development of potentially useful nuclear technologies is difficult in principle to argue against. However, using taxpayer or ratepayer monies to fund the construction of "engineering demonstration" plants that lead to the production of electricity that is placed on the commercial grid is something that ought to be resisted at all costs lest our example become a world-wide model. Finally, any thought that the U.S. and others, such as Russia, can bribe or induce other states not to make their own nuclear fuel, while publicly insisting that these states still have the right to make such fuel, ultimately is both inconsistent and untenable.

This time, let's listen to Blix on WMD

John Burroughs, Chicago Sun-Times, June 17, 2006

Hans Blix is back, this time with a report on how to reduce dangers posed by nuclear and other weapons of mass destruction worldwide. This time we should listen to him. His call as chief U.N. weapons inspector prior to the invasion of Iraq for continued inspections instead of military action was vindicated by the later failure to find WMD. After the catastrophe of the Iraq war, Americans have much reason to reconsider the policy of preventive war to counter WMD proliferation. A reasonable alternative is articulated by the report: Win the cooperation of other nations in preventing further spread of nuclear weapons by working hard to reduce the role and number of existing weapons.

The Blix-led Weapons of Mass Destruction Commission released its report, Weapons of Terror: Freeing the World of Nuclear, Biological and Chemical Arms, earlier this month at the United Nations. It includes distinguished experts from around the world, among them former U.S. Secretary of Defense William Perry.

The report's timing is excellent. Nuclear weapons have once again taken center stage in world politics. In January, French President Jacques Chirac signaled that nuclear weapons could be used against a state responsible for a large-scale terrorist attack on France. In April, there were credible reports that the Bush administration is giving serious attention to options for use of nuclear weapons to attack buried uranium enrichment facilities in Iran. Recent years have also seen North Korea's claim to have a nuclear deterrent and heightened concern about possible terrorist acquisition of a nuclear bomb.

Taking issue with the message familiar to Americans, that nuclear weapons are unacceptable in the hands of rogue states and terrorists, the Blix report rightly says that these catastrophic devices are dangerous in anyone's hands. It explains that the problems of existing arsenals, potential spread, and potential terrorist use are all linked; and that they can be solved only by a comprehensive approach leading to elimination of all nuclear weapons.

Regarding Iran and North Korea, the Commission makes the common sense observation that they must be given a sense of security by renouncing regime change as a policy, providing guarantees against attack, and moving toward WMD-free zones in the Middle East and on the Korean peninsula. It is also important to pay attention to the findings of international inspectors, who were, after all, proved right in the case of Iraq. The United States should take this lesson to heart with respect to Iran, where the International Atomic Energy Agency has extensive on-the-ground experience and so far has not concluded that there is a nuclear weapons program.

In the longer term, stopping the spread of nuclear weapons requires reversing proliferation where it began, in the United States. We led the world into the nuclear age during World War II; now we must lead it out. Unfortunately, since the treaty banning all nuclear test explosions was negotiated in 1996, the United States has abandoned the multilateralism necessary to the exercise of leadership. The Senate rejected ratification of the treaty in 1999. In the 2000s, the Bush administration has repudiated commitments the United States made under the Nuclear Non-Proliferation Treaty to work with other nations to reduce the role of nuclear weapons in security postures and to pursue verified, irreversible reduction and elimination of nuclear arsenals.

The United States needs to take leadership again, by ratifying the test ban treaty and with other countries implementing measures like making deep cuts in U.S. and Russian arsenals and dismantling the reduced warheads; de-alerting nuclear forces by removing warheads from missiles; securing nuclear materials and warheads around the world to prevent terrorist acquisition, and establishing a verified ban on production of plutonium and highly enriched uranium for nuclear weapons. Ultimately, what is needed is what the Blix report calls "planning for security without nuclear weapons."

Admittedly, the sort of international policy-speak found in the report has had little influence in American debate. But the Blix Commission nonetheless should be heeded. It is infinitely preferable to get our wake-up call from a Swedish international civil servant than from a nuclear bomb going off in a major city somewhere in the world.

John Burroughs is executive director of the New York-based Lawyers' Committee on Nuclear Policy, one of several NGOs offering commentary on the Blix report at www.wmdreport.org.

San Francisco Chronicle

Nuclear arms in the hands of any pose a global threat

By Jacqueline Cabasso

Even as Secretary of State Condoleezza Rice condemns North Korea for threatening to test a new missile that could theoretically deliver a nuclear weapon to the Western Aleutians, the Pentagon is poised to develop its own new generation of nuclear-capable, long-range delivery systems. And while President Bush declares a nuclear-armed Iran would pose "a grave threat to the security of the world," the United States is modernizing every weapon type in its vast nuclear arsenal, as Lawrence Livermore and Los Alamos national laboratories pursue America's own arms race.

Lawrence Livermore National Laboratory was founded in 1952 to compete with Los Alamos to develop a hydrogen bomb, a bomb far more powerful than the atomic bombs that destroyed Hiroshima and Nagasaki. Now, under the "Reliable Replacement Warhead" (RRW) program, the labs are competing to design an entirely new warhead, Linton Brooks, head of the U.S. nuclear-weapons complex, has said that in 25 years our arsenal would largely consist of these replacement warheads, and "the weapons design community . . . revitalized by the RRW program" will be able to produce weapons with new military capabilities, "within three to four years of a decision."

If you think this new arms race is endangering, not enhancing our security, you're in good company.

This month, an independent international commission, the Weapons of Mass Destruction Commission, headed by former chief Iraq weapons inspector Hans Blix, released its report, "Freeing the World of Nuclear, Biological and Chemical Arms." The commission, whose members include former U.S. Defense Secretary William Perry, reminds us that the 27,000 existing nuclear weapons are "not an abstract theory," and rejects the hypocritical view that nuclear weapons in the hands of some pose no threat, while in other hands they place the world in "mortal jeopardy." The commission holds the United States largely responsible for the current nuclear crisis, in which threats of further proliferation to additional countries and possible terrorist acquisition are inextricably linked to threats from existing nuclear arsenals.

"Explanations by the nuclear-haves that the weapons are indispensable to defend their sovereignty are not the best way to convince other sovereign states to renounce the option," states the commission's June report. Reducing the threat and number of existing nuclear weapons – including the United States' arsenal, "must be addressed with no less vigor than the question of the threat from additional weapons, whether in the hands of existing nuclear-weapon states, proliferating states or terrorists."

Historically, the United States agreed to nuclear disarmament as matter of law, signing the 1968 Non-Proliferation Treaty. The treaty obligates the United States to end the arms race "at an early date" and negotiate, "in good faith," the elimination of its nuclear arsenal. But although the treaty was extended indefinitely in 1995, President Bill Clinton reaffirmed threatened first-use of nuclear weapons as the "cornerstone" of U.S. national security in a 1997 directive.

> The obligation to move away from nuclear weapons "should start with . . . the United States and Russia."
>
> — Hans Blix, chairman, Weapons of Mass Destruction Commission

At the 2000 Non Proliferation Treaty Review Conference, the nuclear weapon states, including the United States, committed to (under growing pressure from non-nuclear weapon states) an "unequivocal undertaking . . . to accomplish the total elimination of their nuclear arsenals," and "a diminishing role for nuclear weapons in security policies to minimize the risk of their use and to facilitate the process of their total elimination."

Then came Sept. 11, 2001.

The 2002 Nuclear Posture Review exposed U.S. plans for first-use of nuclear weapons in response to non-nuclear attacks or "surprising military developments," and targeted Iraq, Iran, North Korea, China, Russia, Syria and Libya. The 2002 U.S. National Strategy to Combat Weapons of Mass Destruction proclaimed "the right to respond with overwhelming force," including "conventional and nuclear," employed, "in appropriate cases through pre-emptive measures." By lowering the policy threshold for using nuclear weapons, walking away from tried-and-true arms control treaties, launching an illegal preventive attack on Iraq in the name of "disarmament," and racing to build new nuclear warheads, we are seriously undermining international law and U.S. and global security.

Blix's commission says any new research on nuclear weapons must be solely for "safety and security – and demonstrably so," not for new military capabilities, as Linton Brooks envisions. I asked Blix recently whether the International Atomic Energy Agency should inspect the Livermore and Los Alamos labs to verify that the RRW program is "demonstrably" just for safety and security. He chuckled.

"We would be delighted if the IAEA would inspect Los Alamos," adding that, at a minimum, nuclear states must not give nuclear weapons new missions, and underscoring that the obligation to move away from nuclear weapons "should start with . . . the United States and Russia," the biggest nuclear weapon states.

In other words, not only should we not pursue new nuclear weapons, but as the commission spells out in 60 recommendations, nuclear weapons must be outlawed and systematically eliminated, not just in "rogue" states, but everywhere, starting here.

Jacqueline Cabasso is executive director of the Oakland-based Western States Legal Foundation, one of several nongovernmental organizations offering commentary on the Blix report at http://www.windreport.org.