

***The Paul C. Warnke Conference
on the Past, Present & Future
of Arms Control***



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***Arms Control Association
Edmund A. Walsh School of Foreign Service
Center for Peace and Security Studies***

**PROCEEDINGS OF THE PAUL C. WARNKE CONFERENCE ON THE
PAST, PRESENT & FUTURE OF ARMS CONTROL
AT GEORGETOWN UNIVERSITY, WASHINGTON, DC, JANUARY 28, 2004**

Sponsored by the Arms Control Association, Edmund A. Walsh School of Foreign Service, and the Center for
Peace and Security Studies Program at Georgetown University

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Ambassador Paul C. Warnke was a leading and tireless proponent of arms control. A member of the Arms Control Association Board of Directors for nearly two decades, Warnke had a distinguished career of promoting arms control from within and outside government. Most notably, he served as the director of the Arms Control and Disarmament Agency (ACDA) under President Jimmy Carter. During this period, he also led the effort to negotiate binding limits on U.S. and Soviet nuclear forces at the Strategic Arms Limitation Talks (SALT). Although Warnke resigned from the government in 1978 under pressure from those who thought he was not taking a tough enough stance with Moscow, the U.S.-Soviet arms talks eventually produced SALT II in 1979. However, SALT II never entered into force because President Carter asked the Senate to halt its consideration of the treaty following the Soviet invasion of Afghanistan.



Before President Carter's 1976 nomination of Warnke to lead ACDA, he had already riled defense conservatives for criticizing their view that the United States needed to match or surpass the Soviet Union weapon-for-weapon. He set out his ideas in a renowned and controversial 1975 *Foreign Policy* article, "Apes on a Treadmill." Warnke wrote, "The contention that, whatever the practical military utility, we will incur political disadvantages unless we maintain a lead across the spectrum of strategic and conventional forces, is both a recipe for endless escalation of defense costs and a self-fulfilling prophesy." Instead, he recommended that the United States show restraint in its weapons developments on the premise that the Soviet Union would follow suit. "The Soviets are far more apt to emulate than to capitulate," Warnke argued.

Warnke never shied away from saying what he felt was right. As Assistant Secretary of Defense for International Affairs during the Lyndon Johnson administration, Warnke spoke out against U.S. involvement in Vietnam. He was one of the highest-level government officials to give public voice to his criticisms of the war.

After leaving the Carter administration, Warnke returned to the private sector to practice law. Yet he remained a fervent advocate of arms control measures to ease tensions with the Soviet Union and to protect U.S. security. In his later years, he served on President Bill Clinton's Presidential Advisory Board on Arms Proliferation Policy and strongly promoted a comprehensive nuclear test ban.

Paul Warnke died on October 31, 2001. In June 2003 the Warnke family generously donated his papers to Georgetown University's Lauinger Library, where they will be housed in the Library's Special Collections. In a ceremony marking the gift, Ambassador Robert Gallucci, Dean of Georgetown University's Edmund A. Walsh School of Foreign Service, said, "We are so fortunate to have Paul Warnke's papers at Georgetown University. His negotiation of the SALT II Treaty and his intellectual contributions in the field of arms control made a very dangerous period of the Cold War safer for all of us."

—*Arms Control Association*

Foreward

For over five decades, the United States has sought to make the acquisition and development of nuclear, chemical, and biological weapons more technically challenging and less acceptable. During and after the Cold War, Republicans and Democrats, scientists, doctors, concerned citizens, and highly-dedicated public servants like Paul C. Warnke worked to restrain unbridled weapons competition and prevent the use of these terrible weapons.

The *Paul C. Warnke Conference on the Past, Present, and Future of Arms Control* held on January 28, 2004 was organized by the Arms Control Association, the Edmund A. Walsh School of Foreign Service of Georgetown University, and Georgetown University's Center for Peace and Security Studies. A diverse audience of over 200 people attended the sessions. The purpose of the meeting was to explore vital issues that Warnke devoted his career to addressing and the solutions he championed. In addition to highlighting the impact of previous arms control efforts, the conference also aimed to present new ideas and concepts about how best to tackle the evolving threats to international peace and security posed by these terrible weapons.

The record shows that nuclear arms control and nonproliferation efforts have led several states to abandon their weapons programs and headed off the development of even more deadly weapons by others. The nuclear Nonproliferation Treaty (NPT) is so broadly supported that, in addition to the original five nuclear-weapon states, only three other states clearly have nuclear arsenals and they are outside the NPT. The use of nuclear weapons remains taboo. Cooperation with international inspections and safeguards against weapons proliferation are now a standard expectation of all states. Since the 1962 Cuban Missile Crisis almost led to catastrophe, U.S.-Soviet agreements corralled Cold War nuclear arms competition, reduced arsenals, and increased transparency and opportunities for diplomacy, thereby reducing instability and the risk of nuclear war. The Comprehensive Test Ban Treaty restricts the ability of states to improve their nuclear arsenals.

But even as the nonproliferation system has become more sophisticated, the challenges it confronts have become more complex. Over the last decade, the NPT has endured successive crises involving Iraqi and North Korean nuclear weapons programs. Iran now appears to be on the verge of a nuclear weapons capability. Non-NPT member states India, Pakistan, and Israel have advanced their nuclear weapons programs with relative impunity, while the recognized nuclear-weapon states have failed to seize the opportunity to more rapidly reduce and verifiably dismantle their stockpiles of strategic and tactical weapons.

Despite the 1997 entry into force of the Chemical Weapons Convention, not all states of concern have joined and the pace of destruction of existing chemical stockpiles is still lagging. Advances in the biological sciences have created the possibility that new strains of deadly agents can be produced more easily in the future. But, necessary efforts to reinforce the Biological Weapons Convention prohibitions on germ weapons have faltered because of a lack of political will and public awareness. With the fall of the Soviet Union, its network of nuclear, chemical, and biological weapons production and storage sites require accelerated, cooperative efforts to protect against theft, sale, or diversion. The specter of terrorism and the proliferation of nuclear weapons-related technology from Pakistan through black market networks have added a new layer of risk.

In the face of these problems, it has become fashionable for some U.S. policymakers to dismiss arms control and nonproliferation as ineffective. They favor military pre-emption or the threat of pre-emption combined with interdiction of dangerous weapons shipments and unproven missile defenses.

Nuclear proliferation must be met with firm resolve but not in a way that creates an even more uncertain and dangerous future. Rather, as the presentations at the Warnke Conference suggest, the United States must strengthen and adapt—not abandon—preventive diplomacy and arms control, which is the world's first line of defense.

As the recent U.S. experience in Iraq shows, wars cost lives and money and lead to unintended consequences; nonmilitary solutions should not be undervalued. Iraq's nuclear program was actually dismantled through special international weapons inspections, which likely could have contained the Iraqi weapons threat if they had been allowed to continue. Proliferation problems in North Korea and Iran also defy easy military solutions. In both cases, multilateral diplomacy aimed at the verifiable halt of dangerous nuclear weapons and missile activities is the preferred course.

As Senator Jack Reed said in the closing presentation of the conference, future arms control and nonproliferation efforts "should draw from existing programs and activities, reinforce and expand bilateral and

global arms control measures, and be pursued in collaboration with U.S. allies and friends through the UN and other bilateral and multilateral fora.” Priorities include:

- improving international weapons monitoring and inspection capabilities to better detect and deter cheaters, encourage compliance, and galvanize support for collective action to deal with violators;
- expanding and accelerating Nunn-Lugar threat reduction programs in Russia and elsewhere, halting the production of weapons-usable fissile materials and pursuing new restrictions on access to nuclear weapon applicable fuel-cycle technologies;
- revising export controls and cooperative law enforcement efforts to help reduce the flow of illicit weapons, weapons materials, and weapons technologies; and
- practical engagement with states of proliferation concern — such as North Korea and Iran — to look for ways to bring such states into the community of responsible nations and set limits on missile and unconventional weapons competition in troubled regions.

Arms control and disarmament efforts cannot simply be limited to “rogue” states and terrorists that seek nuclear, chemical, and biological weapons. Key states that are not part of existing arms control arrangements, like India, Israel, and Pakistan, must also be involved.

The historical record also shows that nonproliferation efforts have succeeded when U.S. leadership has been consistent and steadfast. As Senators Biden and Reed and other speakers stressed at the conference, the United States and other nuclear-weapon states have a responsibility to lead by example and do far more to reduce the role of nuclear weapons in their own security policies to diminish the importance and lure of such weapons to others by supporting the nuclear test ban, engaging in further talks to reduce and dismantle strategic and tactical nuclear weapons, and refraining from the development of new or modified types of nuclear weapons designed for possible pre-emptive use. As Warnke once wrote, “Our preoccupation with military power as a political tool needs to be faced and overcome.”

I hope that readers will find this collection of expert presentations and discussion to be informative and thought-provoking. We also encourage you to be involved and engaged in these urgent matters through the Arms Control Association, our journal *Arms Control Today*, and with your friends, peers, and elected representatives.

— *Daryl G. Kimball*

Welcoming Remarks

DARYL KIMBALL: Congratulations on arriving this morning. If you could please take your seats and we'll have those outside the auditorium come in. Welcome, everyone. My name is Daryl Kimball. I'm the executive director of the Arms Control Association. We're very happy to have you all here, especially under these bad weather conditions.

The Arms Control Association is one of the co-hosts and co-sponsors of today's event. The Arms Control Association is a nonpartisan, nonprofit resource center and advocacy organization that deals with the risks of nuclear, chemical, biological and conventional arms and the strategies of diplomatic arms control to deal with those problems. For those of you who are not especially familiar with us—I know many of you are members and many of you are readers of *Arms Control Today*—there is more information in the program book, which all of you should have, about the Association and how you can support us and how you can be involved in our work.

As I said, we're one of the co-sponsors of this event, the Paul C. Warnke Conference on the Past, Present and Future of Arms Control, along with the Edmund A. Walsh School of Foreign Service and the Peace and Security Studies Program here at Georgetown. This conference is a very special event in a number of ways, and before we get into the proceedings, I'm going to offer some introductory remarks about the origins and purposes of today's conference and a bit about the inspiration for the conference, Paul Warnke, before we move to our first panel.

Paul Warnke was quite simply a giant in the field of global security and arms control, who worked with passion, principle, and with persistence in the face of long odds and difficult political circumstances. In government, he was a key architect of the agreements and approaches that led us away from the unbridled military competition with the Soviets that was—and in many ways still is—such a great danger to the United States and to the world, and also on approaches that led us away from military competition in other areas in other dangerous ways around the world involving arms.

Once out of government, Paul Warnke, as many of you know, remained a fervent and tireless supporter of arms control and diplomacy, providing generous advice to the government from the outside and also to the many nongovernmental organizations that work in this field. And he was for many years a member of the board of directors of the Arms Control Association. And so with his passing in October of 2001, the ACA Board of Directors felt it would not only be appropriate to acknowledge in some way his legacy and his contributions, but to do so in a way that served to remind and to educate the public about how the tool of arms control has helped make the world a safer place, and also, to advance the discussion, raise awareness, and advance thinking about today's arm control and arms-related issues.

And so that is what this conference is intended to do. We hope that you'll agree at the end of the day that we've accomplished those objectives or at least some of them. And I would also just like to note that in bringing this effort forward, Dean Bob Gallucci, one of our board of directors members, was absolutely pivotal in bringing the concept forward and bringing it to fruition.

So we have a very packed schedule today, which is why we are trying to stay on schedule, despite the fact that Georgetown University is, I think, on an hour delay. We have three panel sessions, each of which include time for your comments and questions. And we've assembled some of the most experienced and thoughtful experts in various areas of arms control, including our luncheon speaker today, Senator Joseph Biden. And also, later this afternoon, at four o'clock, we have Senator Jack Reed, who will be addressing us on the role of arms control and U.S. security.

Let me just make a couple final notes before I turn over the microphone. We have with us here today in the audience many contemporaries of Paul Warnke. I think more of them would have been with us if timing and weather conditions had permitted. I know that Ambassador Ralph Earl is stuck somewhere in Ohio on his way from Indiana and regretted that he could not be here. And I must say that I was fortunate to have met Paul Warnke several times since I arrived in Washington in 1989 to work on these issues and received his generous advice throughout the 1990s, especially on the topic of how to advance the cause of the Comprehensive Nuclear Test Ban, an issue that he very much believed in and worked very hard for.

We also have several members of the Warnke family here. I think all of them will be at the luncheon. We have several here this morning, among them Thomas Warnke, son of Paul Warnke. Benjamin, Stephen, and Georgia

will be here. And we also have Paul Warnke's sister, Margaret McDonald. So I hope that you'll find an opportunity to say hi to them in the breaks and have a chat with them about your impressions of Paul Warnke and how he may have affected your career and your thinking.

So thank you very much for your attendance and your persistence in getting through the conditions. With that, I'm going to turn over the microphone to Ms. Artemis Kirk, who is the Georgetown librarian, where Paul Warnke's papers are housed, and we'll hear a few opening comments from Dean Bob Gallucci. Ms. Kirk?

ARTEMIS KIRK: Thank you very much. Good morning, everyone. It's my great pleasure to be another person to welcome you on behalf of the University Library and the Georgetown University Library Associates, some of whom are here today joining this wonderful conference.

Georgetown is privileged to be the home of the Paul Warnke papers. We are grateful and honored that the Warnke family, in selecting Georgetown, recognized our outstanding special collections in political science, history, and diplomacy. The Warnke papers are an important resource for students and faculty alike and provide scholars a great deal of insight into some of the most important events in arms control history.

There is an exhibit of a portion of Mr. Warnke's papers in the Lauinger Library Gunlocke Exhibit Room today, and we hope that you might find a few moments to go to the Lauinger Library's fifth floor to view some of the documents that you have read about, that you've seen, that you know about, as well.

These papers contain considerable evidence of the development of Mr. Warnke's thought related to SALT, ACDA, and many other topics. In the text of his speeches and articles found in both draft and final forms in this collection, the essential issues are presented in a manner to inform and convince both the layperson and the specialist.

Mr. Warnke's recollections of the Vietnam era were often sought, and he was generous in reviewing and commenting on historical and theoretical discussions by advanced students, professional writers, and fellow participants organizing their memoirs. Much evidence of his contributions as both source and editor are contained in these papers. We hope that you will have a chance to view them, and we are very grateful to the Warnke family for permitting Georgetown to house this excellent and wonderful collection.

It's now my privilege to introduce the Dean of the Edmund A. Walsh School of Foreign Service, Ambassador Robert Gallucci.

ROBERT GALLUCCI: Welcome, everybody, and thank you so much for coming under somewhat difficult circumstances. I want to be the third person this morning to welcome you, and I also want to be yet another person to thank the Warnke family. Now, where are they sitting right now? There they are, in the back. Okay, I see Tom and Maggie and Georgia. Is Stephen there? How about Benjamin? (Laughter.) Okay. All right. We're very, very, very pleased you're here and very pleased you could join us for this and very grateful to the family.

I imagine that Paul Warnke would have liked this conference. I think he would have liked the concept of it. I think he would have thought this was the right time to have a conference on arms control, its past, what it has contributed, what's going on now, and what's ahead of us in the arms control world. I think he would have been somewhat disturbed by some elements of this atmosphere. I think he would have been concerned about the feeling that negotiation with defective regimes, evil regimes, was somehow inappropriate, wrong, or even immoral. I think he would have had trouble with calling those who negotiate with such regimes appeasers. I think he would have had trouble with the idea that this was submitting to blackmail. I think he was passionate about the national security, but truly believed that negotiation was one way of achieving our national security objectives.

The panel is here. I don't want to take more time. I will say that the chair of this first panel, John Steinbruner, is the chair of the board of directors of the Arms Control Association, as well as being a professor at the University of Maryland and director of the Center for International Security Studies at Maryland. John, I'm glad you could run down and make it. So ladies and gentlemen, I hope you enjoy the day, and I know it'll be a productive one.

At a time of widespread fears that a terrorist group or rogue state could carry out a horrific attack using weapons of mass destruction, it is easy to forget that the United States and the international community have worked quite successfully since the devastating U.S. bombings of Hiroshima and Nagasaki to establish standards against and prevent the use and spread of nuclear, chemical, and biological weapons. The exceptions chill us: the near catastrophe of the Cuban missile crisis and the deadly use of chemical weapons in the bloody Iraq-Iran war. Yet, dire predictions that some 20 countries or more would be armed with nuclear weapons have not come true. And most countries have forsworn chemical and biological arms as legitimate weapons of war. These are not minor accomplishments.

When arms control is mentioned, most people think of the Cold War—and for good reason. The latter years of that era were dominated by superpower negotiations and summits at which grim-faced U.S. and Soviet diplomats and leaders tried to limit each other's burgeoning nuclear arsenals. What brought them together was the ever more costly, risky, and politically unpopular nuclear arms race; the stark reality of which became undeniable during the harrowing 13 days of the October 1962 Cuban missile crisis. Shortly thereafter, the two superpowers negotiated the Limited Test Ban Treaty. The treaty did not slow the nuclear arms race, but it did offer tangible health and environmental benefits by outlawing harmful nuclear testing in the atmosphere, at sea, and in outer space. It also showed the two rivals that regulating their competition did not have to be a zero-sum game and that it could, in fact, produce mutual gains. After determining that the introduction of missile defenses would only spur a buildup in offensive forces to overwhelm them, the two sides agreed to ban nationwide missile defenses in the 1972 Anti-Ballistic Missile Treaty. Treaties limiting offensive nuclear forces—SALT I, SALT II, the Intermediate-Range Nuclear Forces Treaty, and START I—soon followed. While these Cold War agreements did not end the U.S.-Soviet nuclear showdown, they helped manage it (and its aftermath), enabling the two sides and the world to avoid nuclear catastrophe.

Yet arms control in the Cold War entailed more than merely restraining the superpower arms race. It was the chief tool in limiting the size of the nuclear club. To this end, Washington, Moscow, and other like-minded capitals concluded in 1968 the nuclear Nonproliferation Treaty (NPT), which established a legal, moral, and political norm against nuclear weapons. A handful of countries have defied the treaty, but more have given up nuclear weapons programs and actual weapons than acquired them since the treaty's entry into force. Argentina, Belarus, Brazil, Kazakhstan, South Africa, South Korea, Taiwan, and Ukraine are some of the successes. Iraq has been forced to join their ranks, Libya has announced its intent to do so, and Iran and North Korea are under intense pressure to follow suit.

Before nuclear weapons, chemical and biological weapons ranked as the most terrifying arms in mankind's arsenals. Countries outlawed their use in the 1925 Geneva Protocol following the horrors of gas warfare in World War I. But the production and possession of germ and chemical weapons was not prohibited until the international community concluded the Biological Weapons Convention (BWC) in 1972 and the Chemical Weapons Convention (CWC) in 1993. CWC states-parties, including the United States and Russia (which together have more than 70,000 tons of chemical weapons) are now working to destroy their banned arms. Still, several countries are suspected of harboring secret stockpiles of these two loathsome types of weapons and fears abound that more lethal concoctions could be cooked up in laboratories around the world. Facing these challenges, the BWC, which lacks verification and enforcement provisions, and the CWC must be strengthened to permit the international community greater authority to uncover and halt unlawful chemical and biological weapons work.

—*Arms Control Association*

PANEL ONE Assessing the Record of Arms Control

CHAIR: John Steinbruner,
*Chairman, ACA Board of
Directors*

**MANAGING THE U.S.-
SOVIET ARMS RACE:** John
Newhouse, *Senior Fellow,
Center for Defense Information*

**CONTROLLING THE
SPREAD OF NUCLEAR
WEAPONS:** Nobuyasu Abe,
*UN Under-Secretary General
for Disarmament Affairs*

**OUTLAWING CHEMICAL
AND BIOLOGICAL
WEAPONS:** Elisa D. Harris,
*Senior Research Scholar,
Center for International and
Security Studies at Maryland*

JOHN STEINBRUNER: We have three very distinguished people. The overall point of this panel is assessing the record of arms control to this point.

The first speaker, John Newhouse, will talk about managing the U.S.-Soviet arms race. John Newhouse, as I suppose most of you know, is one of the principal scholars of the subject, as well as a practitioner. He is currently senior fellow at the Center for Defense Information. He was a principal European advisor to Strobe Talbott, when Strobe Talbott was deputy secretary of State. He was an assistant director of the Arms Control and Disarmament Agency in the early days, when the SALT treaty was emerging, and he wrote the definitive, historical account of that process. He spent a long time as guest scholar at the Brookings Institution and writer for *The New Yorker*, and his latest book is called *Imperial America: The Bush Assault on the World Order* and we're very pleased to have his comments this morning.

JOHN NEWHOUSE: Well, I'm deeply gratified and honored to be taking part in this ceremony honoring the contributions and the memory of Paul Warnke. And like Bob, I'm also very glad that Maggie, Georgia, Tommy, Benjamin, and Stephen and Margaret are also here. Paul would have obviously liked that a lot.

Paul always knew exactly where he wanted to go; that is to say, where he wanted to take a particular negotiation or the path to an agreement. He fought harder against those who tried to block or impede progress in this direction, probably harder than any of his like-minded peers in that era. But in doing so, he never lost his robust sense of humor. At the peak of a Republican outcry against arms control in all of its forms, he wrote a piece in *Foreign Policy* under the title "Apes on a Treadmill." This got him into no end of trouble on Capitol Hill, but he had no regrets. All that to say he took things as they came, worked awfully hard, and never minced words. I mentioned his humor. Twice I saw him reduce an entire Soviet arms control team, including its chief, to helpless laughter. And he didn't do this in any kind of an edgy or mean-spirited way. He just took their negotiating position and spoofed it a little bit, and they loved it.

During much or most of the Cold War, national security policy was dominated by contesting pressures to build ever more strategic arms and to impose some controls on these weapons. Advocates of arms control argued plausibly that setting limits would stabilize the competition for increasingly large arsenals of progressively more destructive weapons. Given the politics surrounding arms control, it was never possible to envisage or work toward a comprehensive agreement that would remove the threat and set eternal limits on the weapons or produce a fully verifiable arms control regime. The idea was partly, insofar as verification is concerned, to get tight limits, to get a verification regime so tight that it would reduce—even though there would be margins left for cheating—the incentive to cheat because it wouldn't make any sense to do so on a scale worth risking the collapse of the process.

Put differently, Paul and those on his side of the argument envisaged a process of one agreement leading to another agreement. These were envisaged I think as links in a chain, and with each link, giving the parties greater confidence in the process and also engaging their larger interests

in the process, and also creating a kind of path toward further agreements down the road, including agreements that could be reached in the post-Cold War era. All of that was looked ahead toward.

Relations between adversaries in this period—adversaries such as the United States and the Soviet Union, the Soviet Union and China—were really defined by the presence of nuclear weapons. The same could be said of relations between allies—the United States and its major allies in NATO, for example. Nuclear weapons really set the entire history of this extended era on its course with the fundamental purpose of avoiding any situation that might lead to crossing the nuclear threshold. National security policy became a growth industry in this period with the special aura of the nuclear issue promoting the larger part of the growth. The work always attracted strong and gifted people, and the intensity of the struggle led to bare-knuckled tactics, and the victim increasingly was public policy.

Reality in the Cold War, particularly in terms of nuclear issues, became what people whose voices carried said it was. There were always competent technicians to shore up any side of any argument. However, decisions in this period often involved too few people, and too many of them were narrowly focused specialists. You could think of them as brothers of a nuclear priesthood, and the inspiration—they were the inspiration for screwball notions of limited nuclear war and systematic and workable civil defenses against a bolt-from-the-blue sort of attack.

These were examples of the brothers' tendency to reify; a term the dictionary defines as "treating an abstraction as if it had concrete or material existence." In creating nuclear war scenarios over the years, many of the brothers reified that which was unknown and could not be known about nuclear war unless there was one. And the net effect, instead of sober and balanced discussion of nuclear issues, society during the Cold War and since was confused—hence, victimized—by shrill and polarized debate, the terms of which were often as arbitrary as they were absurd.

Some members of the priesthood are still around, still imposing on the rest of us their latest version of how to defend against the bolt-from-the-blue. This current notion is called national missile defense. It's been labeled, not unjustly, by one skeptic as a "defense that won't work against a threat that doesn't exist." Paul, I think, would have liked that comment. In fact, he could have invented it if he were here.

But it's just as well he didn't see the Treaty of Moscow. In May 2002, Bush and Putin signed something called the Strategic Offensive Reductions Treaty. It was advertised as having set actual limits on deployed warheads, but it was toothless. It did nothing of the sort, although all parties appeared to get something.

Putin and Powell had pressed for a written agreement, and they got one after a lot of wrangling in Washington. But the Bush team was determined that whatever was agreed to would not inhibit any part of the Pentagon's strategic planning. Hence, the text was in a sense meaningless. Not a single missile launcher or warhead would have to be destroyed. Each side was allowed to carry out reductions in warheads at its own pace or even halt reductions and rebuild its arsenal.

Our internal politics may have driven us to the point where serious progress in arms control is best accomplished, if at all, with a moderate Republican president and a Democratic Congress. Democrats tend to support arms control, but a Democrat in the White House has great difficulty in maneuvering an arms control proposal past Congress. Right-wing Republicans can be relied on to attack it as unverifiable or favoring the other side or otherwise damaging national security. A moderate Republican president can try moving the arms control process along at little risk that Democrats in Congress will oppose him. And right-wing Republicans, however hostile to arms control, are reluctant to take on one of their own.

President George Bush senior did the most to control nuclear weapons. He and his team negotiated the START treaties. In fact, I made a little list of what they did. They negotiated the START treaties. They also withdrew most of the tactical nuclear weapons deployed abroad. In 1991, Bush ordered the armed forces to eliminate the entire inventory of ground-launched nuclear weapons and tactical nuclear weapons from surface ships, attack submarines, and land-based naval bases. America's strategic bombers would stand down from their alert postures and their nuclear weapons would be removed and stored in secure areas. The short-range attack missile program was cancelled, and a moratorium of testing of nuclear weapons was announced. Funding for the Nunn-Lugar program was announced.

When the Cold War era wound down, I was groping for a few words to use in something I was writing that would kind of capsulize what we'd lived through. I was looking for I guess a kind of epigraph, and I couldn't find any words of my own, so I fell back on T.S. Eliot and *The Four Quartets*. He wrote the following passage, "We had the experience but missed the meaning."

Thanks.

MR. STEINBRUNER: Our second speaker is I'm sure well known to you all and we are greatly honored that he could come and be with us. This is Ambassador Nobuyasu Abe, who is the UN Undersecretary General for Disarmament Affairs. Prior to that, he was Japan's director general for arms control and science affairs, and he organized the Tokyo Forum for Nuclear Non-Proliferation and Disarmament. In that capacity, he was involved in the landmine convention and many other issues having to do with arms control. We greatly appreciate his willingness to address

us this morning on controlling the spread of nuclear weapons.

NOBUYASU ABE: Thank you, Professor Steinbruner.

I'm pleased to be here participating in the Paul Warnke Conference. I traveled from New York yesterday to snowy Washington, D.C. These days it's always challenging to travel by air because you're constantly reminded of the terrorist threats. You have to remove everything—almost everything metallic from your body. You even have to remove your shoes. I think sooner or later, you may have to come to the airport in pajamas and get on the plane. (Laughter.)

But I'm all in favor of security measures against terrorist threats. I took advantage of my stay in Washington yesterday to measure the temperature in the capital of the United States for arms control and disarmament. I'm afraid the temperature's not so high in Washington. But today I think we can help raise the temperature.

Since Mr. Newhouse just addressed the U.S.-Soviet and U.S.-Russia relationship and other speakers will be addressing the problem of chemical and biological weapons, I will focus upon the past international efforts in the field of nuclear disarmament and nonproliferation and their successes and failures. I think the ultimate test of the success in these fields can be summarized by one word: results. By results, I do not mean simply signatures of this or that document or pleasant words uttered at ceremonial diplomatic occasions. When it comes to nuclear arms control and disarmament, results consist of real achievements in reducing and eliminating the risk of the willful or accidental use of nuclear weapons. The assumption is that the greater the number of nuclear weapons and the wider they are spread, the greater is the risk they [might be] used willfully or accidentally.

The international community has worked for many decades to achieve results using a variety of means—in particular, national and multilateral measures against the global proliferation of nuclear weapons and to promote nuclear disarmament, as well as more recent efforts to combat nuclear terrorism. Though nuclear arms control has experienced its ups and downs over the years, it is to the progress that I would first like to turn.

Over a half century after the nuclear attacks at Hiroshima and Nagasaki, we are fortunate indeed to observe that there has not been even a single use of nuclear weapons and that there are only five recognized nuclear-weapon states, and only four states with the non-recognized nuclear weapons capability outside the NPT [nuclear Nonproliferation Treaty]. George Bunn recently estimated that without the NPT, there could have been at least 28 additional states with nuclear weapons. This alone is a significant achievement. Several states, including South Africa, Brazil, and Argentina have voluntarily given up their nuclear weapons programs. There are now four regional nuclear-weapon-free zones, which cover virtually the entire southern hemisphere; not to mention treaty regimes that prohibit the stationing of nuclear weapons on the seabed, in Antarctica, in orbit, on the moon and other celestial bodies, or the testing of such weapons at sea, in the atmosphere, or in space.

Commitments on paper like these can be quite meaningful, but commitments backed by credible verification measures bring us closer to what I would call real progress in nuclear arms control. The IAEA [International Atomic Energy Agency] safeguards system is one such measure to the extent that it has served as an intrusive, agreed, multilateral means to verify the peaceful uses of nuclear material. While these safeguards have by no means eliminated all threats from the misuse of peaceful nuclear technology or material, the world is undoubtedly better off with these binding, intrusive safeguards than without them. The new authorities contained in the Additional Protocol will further enhance the ability of safeguards to verify the peaceful use of commitments.

More generally, I must note, on the positive side of the ledger, the enormous, virtually universal support that exists in the world today for the fundamental norms of nonproliferation and disarmament and against nuclear terrorism. This support is demonstrated not just in declaratory resolutions adopted each year in the UN General Assembly but in the form of legally binding commitments made by states to regional and global nuclear arms control treaties, commitments that are increasingly being reinforced by concrete national actions.

The indefinite extension of the NPT in 1995 and the adoption a year later of the Comprehensive Nuclear Test Ban Treaty [CTBT] were two specific landmark events in the evolution of nuclear arms control norms. Though the latter has not yet entered into force, the world has witnessed for many years now a *de facto* moratorium on nuclear tests, and the steady buildup of the international monitoring system under the provisional CTBT Secretariat, adding a significant deterrence against any clandestine testing.

I have to recall, however, that negotiation of this treaty was a major part of the package deal that led to the NPT's indefinite extension in 1995. After all, the NPT succeeded in preventing a significant number of industrial nations that had significant technological capability at that time from acquiring nuclear weapons. With the passing of time, that non-nuclear-weapon status has settled down very well in those countries' body politics.

Preventing such nations as Japan, Germany, Sweden, Switzerland, Canada, and Australia [from pursuing nuclear weapons] is no means a small accomplishment. If it is about conventional weapon, I think the NPT would have very well earned a passing grade. But the nature of such WMD [weapons of mass destruction] as nuclear

weapons is such that the bar for a passing grade is very high. A few nuclear bombs in new hands can greatly change the strategic equation. I have recently seen a Japanese magazine describing with graphic illustrations the devastating damages that can be caused by a single nuclear bomb dropped on Tokyo or Osaka. A terrorist explosion of a nuclear bomb in New York or Washington has also been a realistic threat since September 11th.

Consequently, in spite of these successes, there's a growing criticism that the NPT and the IAEA are failing in the task of stopping nuclear proliferation. We have been dismayed by the uncovering of the clandestine nuclear activities that had taken place in such NPT states-parties as Iraq, [North Korea], Iran, and Libya. And for as long as 18 years, they were left without either detection or significant national or international responses. The NPT was designed more than 30 years ago when the production of fissile material for nuclear bombs required highly advanced, large industrial facilities. Today, the technology has become a lot more easily available under dual-use guise.

The NPT, IAEA, and national preventive measures have not caught up to the changing world. The IAEA safeguard system has undergone a number of major reforms but only after catastrophic events. We have witnessed, for example, improvements in these systems only after the [1991] Gulf War exposed the Iraqi nuclear capability, just as other safeguard reforms followed China's first nuclear test in 1964 and India's so-called peaceful nuclear explosion in 1974.

The events of September 11th have inspired new efforts to improve the physical security of nuclear materials, even though the problem of nuclear terrorism had been widely discussed in the media and in the scholarly circles decades before. Considering the stakes involved with just one nuclear detonation, I believe that those safeguards and physical security functions should evolve more responsively and proactively to perceived threats without requiring external shocks to deliver such progress. The reality is that even the controls contained in the Additional Protocol are only enforced in 38 states.

I note that the IAEA's Director-General, Mohamed ElBaradei, has also commented in recent months about the great challenges facing safeguard systems. The greatest challenges concern sensitive fuel cycle activities, in particular enrichment and reprocessing. His recent proposal to allow such activities only in facilities under international control deserves serious consideration by all who seek to reduce nuclear threats. His proposal seems to reflect his frustration about blame being put on the IAEA for the latest outbreaks of proliferation. The existing treaty and the IAEA's statutes allow states-parties to build uranium enrichment and plutonium processing plants legitimately, and then the states can jump to weapons production almost with impunity. Because of this concern, he thinks the world one day has to go a step further to consider comprehensive global control, if not prohibition, of the production of fissile material.

Beside the concern about the past illicit nuclear activities in NPT states-parties, other challenges arise from various activities of the four states outside the NPT. Specifically, Pakistan, which has reportedly provided, directly or indirectly, nuclear assistance to other proliferators; India, which continues to expand its nuclear weapons programs; Israel, which has shown little interest in abandoning its nuclear weapons; and [North Korea], that alternates from boasting about its nuclear weapons capability to denying it. Diplomatic efforts are underway to address each of these cases, but some are very limited in scope, and virtually all of them are uncertain of their outcome. Most important of all, the world community must ensure that proliferation does not pay dividends in whatever form.

Of all the problems facing the NPT regime, I believe the most serious one today relates to the issue of enforcement. Many questions remain unanswered concerning what the world is supposed to do once non-compliance is reliably detected. The NPT offers no guidance in addressing the issue. If the Security Council is unable to reach a consensus on enforcement actions, the available alternatives become unilateral action or collective efforts by ad hoc groups or so-called coalitions of the willing.

Secretary General Kofi Annan addressed this issue in his opening address last September to the General Assembly, saying that, "It is not enough to denounce unilateralism unless we also face up squarely to the concerns that make some states feel uniquely vulnerable, especially to those concerns that drive them to take unilateral action. We must assure that those concerns can and will be addressed effectively through collective action."

I believe the great challenge ahead is not simply to oppose individual action by states but to strengthen the effectiveness and credibility of multilateral efforts on behalf of nuclear nonproliferation and disarmament while simultaneously enhancing the capabilities and willingness of individual states to ensure that their laws, regulations, and policies are serving the vital interests of international peace and security.

In 2004, nuclear weapons still remain very much of a concern in the world. There is no denying that the number of nuclear warheads has drastically come down from the peak during the Cold War, but still there are reportedly over 30,000 nuclear weapons still in existence. And the fact that we do not know the exact number testifies to the lack of transparency. Qualitative improvements in those weapons and doctrinal changes are under-

way in many countries. There are no rules against acquiring a nuclear fuel capability, no bans on nuclear weapons research, and no legal provision of nuclear-related cooperation between non-nuclear-weapon states. The CTBT is not in force, nor is there a fissile material cutoff treaty.

Finally, most of the 13 steps agreed to at the 2000 NPT Review Conference for progress in nuclear disarmament have not been implemented. This mixed record has led some observers to declare confidently that the NPT regime is moribund and obsolete. I do not believe it is so bad or too late. But the world urgently needs to work to strengthen its nuclear disarmament, nonproliferation, and anti-terror mechanisms. Efforts by organizations in civil society, such as the Arms Control Association, can do much to promote responsible actions to address the many unresolved problems of the nuclear arms control agenda.

At the outset, I said it is the results that count, so let us revitalize the arms control process, expand our common search for the practical means to achieve disarmament and nonproliferation goals, and to strengthen the ability to verify and secure the compliance with nonproliferation and disarmament commitments. For this reason, I salute the Arms Control Association, not just for its persistence, but for its keen vision of the goals ahead and for its many efforts to identify and to promote practical measures that are so vitally needed to achieve them.

Let me send my best wishes for your efforts over the years to come. Thank you very much.

MR. STEINBRUNER: Thank you. We do appreciate the encouragement and your presence here.

The final presentation from the panel before we begin discussion will be on the questions of outlawing chemical and biological weapons. It will be made by Elisa Harris, who is a colleague of mine at the University of Maryland, well known to all of you as the director of Nonproliferation and Export Controls for the National Security Council during the Clinton administration, and prior to that a well known scholar of this subject.

Elisa.

ELISA HARRIS: Thank you, John. Good morning, everyone. I'm delighted to participate in this important conference and to be on this panel with such distinguished colleagues. It's also terrific to be back at Georgetown, which is my alma mater. I didn't know Paul Warnke personally but have been a great admirer of not only his scholarly work but also of the many things he achieved when he was in public service.

I've been asked to assess the record of arms control efforts involving chemical and biological weapons, and so I'm going to assume, since I've been given two weapons systems to discuss, I can take a little bit more time than my distinguished colleagues.

Efforts to prevent the use of chemical and biological weapons of course go back more than 100 years. There was the 1899 Hague gas declaration, which outlawed the use of projectiles containing asphyxiating gases, and the 1907 Hague convention, which outlawed poison weapons. It was, though, the 1925 Geneva Protocol which ushered in the era of modern arms control efforts with respect to CW [chemical weapons] and BW [biological weapons]; it prohibited the wartime use of poison gas, as well as bacteriological methods of warfare. As many of you know, many countries, upon ratifying the Geneva Protocol, reserved the right to retaliate in kind should others use chemical or biological weapons against them, or to use such weapons against nonparties. As a consequence, the Geneva Protocol over the years came to be seen as a sort of no-first-use agreement.

Half a century later, in 1972, the Biological and Toxin Weapons Convention [BWC] was concluded and it banned biological and toxin weapons. It was the first arms control agreement to eliminate an entire class of weapons of mass destruction, but it contained no verification provisions—no means of ensuring that countries were complying with their obligations. Twenty years later, when the CWC [Chemical Weapons Convention] was concluded, the situation was very different. It was a milestone for exactly the opposite reason, because it contains the most intrusive verification provisions ever negotiated in a multilateral agreement.

When Daryl first called me and asked me to speak on this panel about the record of arms control efforts to outlaw chemical and biological weapons, I realized that there were a number of ways one could approach this subject. What I would like to do in the time that I have this morning is to focus on three questions: first, whether these treaties have helped reinforce the norm against the use of chemical and biological weapons; secondly, whether they've helped de-legitimize possession of such weapons; and finally, whether they've helped stem the proliferation of chemical and biological weapons.

Let me begin first with preventing use. I think assessing the record of these treaties in terms of preventing the use of chemical and biological weapons is probably the most difficult question given the unique circumstances of every conflict over the past century.

So let's look at the facts. By any measure, chemical and biological weapons have been used very rarely in armed conflict since chlorine was used at Ypres in April 1915. There have been only about half a dozen significant uses of chemical weapons over the past nearly 100 years. There was of course the use of gas by Britain against the Bolsheviks

during the Russian civil war in 1919; Spain used chemical weapons in Morocco in 1922; the Italians in Ethiopia in the 1930s. The U.S. used riot control agents and chemical herbicides in Vietnam, which was considered by most of the international community at the time to be the use of chemical weapons. The Egyptians used gas in Yemen in the 1960s, and of course both Iran and Iraq used chemical weapons during the first Gulf War in the 1980s.

The record on biological weapons is even more striking. Only one military power has used biological weapons in armed conflict, and that is Japan, which used biological weapons against the Chinese and others in the late 1930s and early 1940s. So the record of the use of these weapons is really very limited. Moreover, every significant use of chemical or biological weapons has been followed by the development of stronger international restrictions on these types of military power. The Geneva Protocol was, of course, in many ways, a product of the use of gas in the First World War. The BWC, if you look at the history, was very much linked, at least in part, to the controversy surrounding the use of riot control agents and herbicides in Vietnam, and the CWC, in my judgment, was given an impetus by the Iran-Iraq war and the near-miss in the [1991] Gulf War.

The Geneva Protocol was, of course, a codification of the norm against chemical and biological warfare. As measured by the number of states-parties, I think it can be argued that the norm has gotten stronger over the last 75 years. When it entered into force in 1928, France was the only state-party. On the eve of World War II, there were about 40 state-parties, including every major power but the United States and Japan. And today there are some 133 state-parties to the Geneva Protocol. Its prohibitions are generally viewed by most international lawyers and governments as having entered into customary international law, and that means they're binding upon all countries, whether or not they are parties to the protocol. The BWC and the CWC have helped reinforce the norm against the use of these weapons.

Let me turn to my second question now: how effective have these treaties, in particular the BWC and the CWC, been in de-legitimizing the possession of biological and chemical weapons? Let's start with the BWC.

I think it can be argued that the prohibitions in the BWC have been widely accepted within the international community, at least as measured by the number of states-parties. When the BWC entered into force in March 1975 there were about 45 states-parties. At the present time there are about 151 countries that have undertaken a binding legal obligation not to develop or produce or possess biological agents and toxins, in the words of the treaty, "of types and in quantities that have no justification for prophylactic, protective, or other peaceful purposes." And those words, the three Ps as we call them, are important. I'll come back to that.

Of course, from the outset the provisions of the BWC pretty much guaranteed that there would be questions and concerns about whether countries were abiding by their obligations. There were three reasons why that was the case.

First, the treaty did not ban research on biological agents or toxins. It's often said that the treaty did not ban defensive research. In actuality, it did not ban any research, and offensive research on biological agents and toxins is permitted under the BWC. Secondly, it allowed, as I just mentioned, the retention of biological agents and toxins for certain permitted purposes—prophylactic, protective, or other peaceful purposes—as long, again, as they were of types and in quantities that were consistent with those three purposes. So you could do research on the agents. You could retain them, develop them, produce them for prophylactic or protective or other peaceful purposes. And finally, as I mentioned at the beginning, there were no verification provisions—no declaration, no inspection provisions—that would provide reassurance that both the disarmament and the non-armament provisions of the BWC were being adhered to.

In the 20 years since the BWC came into force, states-parties have tried to compensate for these limitations of the treaty in a number of ways. First, as many of you know, in the 1980s, they agreed to voluntarily exchange information about facilities and activities that were relevant to the convention, the so-called BWC confidence-building measures (CBMs). But participation in those measures has been relatively limited. Many countries have not done so, or have not done so with regularity, or with the detail that has been expected.

In the 1990s, the CBMs were followed by an effort to negotiate real compliance measures, legally binding declaration and inspection requirements that would form a protocol, as it was called, to the BWC. This was motivated to a very significant extent not only by the lack of participation in the CBMs but also the revelations about the enormous biological weapons program that the Soviet Union had maintained throughout the period in which the BWC had been in force, as well as the revelations in the early 1990s about Iraq's pursuit of a biological weapons program. As is well known, this BWC protocol effort collapsed in 2001 when the Bush administration decided that it could not support the text that was under negotiation or the very idea of a compliance and transparency protocol to the BWC.

Now we have a new process, as it is called, underway. It began in 2002 and this new process among BWC states-parties is much more limited in its focus. It is designed primarily to encourage individual countries to take various steps on a national basis, voluntarily, to reduce the likelihood that biological agents or toxins are misused

for hostile purposes. And the focus of this new process is on things like strengthening controls over pathogens and encouraging countries to pass national implementing legislation.

Expectations are relatively low, at least based on the first meetings of countries participating in this new BWC process, that much of significance will come out of this. But the real problem is that whatever does materialize will not fundamentally address the key issue confronting the BWC, and that is the continuing concern that a number of countries are pursuing biological weapons programs. In recent years, as is known, the U.S. government has said that more than a dozen countries are believed to either have or be pursuing biological weapons.

Outside of the treaty, the key holdouts, if you will, about which there are concerns, are Egypt, Israel, and Syria. Within the treaty, the U.S. government has identified Iran, Iraq, Libya, North Korea, Russia, and China as being BW proliferators, as having illicit BW programs contrary to the terms of the BWC. And several other countries have also been mentioned: India, Pakistan, Sudan, and Taiwan, which of course has a special status, a complicated status with respect to international treaties.

As everyone knows, and has been much in the news in recent weeks, both UNMOVIC [the UN Monitoring, Verification and Inspection Commission] and U.S. inspections—under David Kay in Iraq—appear to have resolved the concerns that Iraq possesses biological weapons. But those inspections did show—and I think this is important to bear in mind—clear evidence of not only a laboratory network but also procurement efforts aimed at reconstituting Iraq's biological weapons program in the future.

The other significant development with respect to BW proliferation in recent months of course has been the Libyan announcement that it will comply with the BWC. That is also a very welcome development. Ultimately of course we need to ensure that both the Iraqi program is not reconstituted in the future and that any required Libyan disarmament efforts are carried out. And of course we need to address the concerns that have been expressed by the U.S. and others about continuing BW programs in the other countries that I mentioned.

What about the CWC? I think the track record of participation in this treaty is even more impressive than with respect to the Biological Weapons Convention. At entry into force in April of 1997—that's less than seven years ago—there were 87 states-parties. With the recent accession of Libya and Tuvalu, we are now at 160 states-parties to the CWC; 160 countries have agreed now not to develop or produce or possess or use chemical weapons. As I mentioned, unlike the BWC, the CWC does contain detailed declaration and inspection provisions that are designed to ensure that its parties are meeting both their disarmament and their non-armament obligations. So you can look at how countries have met these declaration and inspection requirements to get a more tangible feel for the impact of the CWC.

So what has happened since entry into force of the CWC? Let me just run through a few data points that I think are important.

First, five states-parties, including three who had not previously acknowledged possessing chemical weapons, have declared CW stocks. These countries are the U.S., Russia, India, South Korea, and most recently Albania, which apparently has some bulk agent that may or may not be militarily usable.

Since entry into force of the CWC, some 8,000 metric tons of chemical agent and approximately 2 million munitions have been destroyed under international supervision. This represents approximately 11 percent of the 70,000 tons of chemical agents that have been declared under the treaty, and close to 25 percent of the 8.6 million munitions or containers that have been declared.

Since entry into force, 11 states-parties have declared 61 current or past CW production facilities. These countries are the U.S., Russia, India, South Korea, China, Iran, France, Japan, the U.K., Bosnia and Herzegovina, and Serbia and Montenegro. All 61 facilities have been inactivated. Two-thirds of them have either been destroyed or converted to permitted purposes under international supervision.

Finally, over 1,600 inspections have been carried out at close to 700 sites in 58 countries. Two-thirds of these inspections have been at chemical weapons-related facilities, (chemical weapons stockpile sites, chemical weapons destruction facilities), and roughly a third of these inspections have been at industry facilities that handle chemicals that could be used to make CW agents, the so-called scheduled chemicals.

Pretty impressive record, at least in terms of the numbers. But as is well known, the CWC, like the BWC, faces some important challenges, and let me just quickly mention a few of them.

First, we have the continued existence of chemical weapons programs. Prior to the ratification of the CWC here in the United States, U.S. officials said that there were some two-dozen countries that either had or were seeking chemical weapons. In recent years, the number used is roughly a dozen. So we've seen a significant reduction in the number of countries of CW proliferation concern, but still, a dozen countries is a dozen too many. Among the countries that are outside the treaty, there are concerns about Iraq, Libya (until recently), Syria, North Korean, Egypt, and Israel. Myanmar and Taiwan have also been mentioned as countries with probable chemical weapons programs.

Within the treaty there are also concerns about the compliance of particular countries. Iran, Russia, China, India, Pakistan, all of them have been identified as countries that, at least in the judgment of the U.S., are either not meeting their declaration obligations or are maintaining illicit chemical weapons programs. Two other countries that are CWC states-parties, Ethiopia and Vietnam, have been mentioned previously as having possible CW programs. Now, Libya's announcement that it has a chemical weapons program and its decision to accede to the treaty has created the opportunity to remove it from the list of countries of CW concern. Iraq clearly needs to join the CWC as well. The CWC's declaration and inspection provisions will be of critical importance to ensuring that questions about Iraq's past CW capabilities are sorted out and more importantly, that Iraq does not reconstitute its chemical weapons program in the future.

Beyond the problem of continued chemical weapons programs we also have problems within the CWC in terms of countries meeting their destruction obligations. Both Russia and the United States, which are of course the two largest possessors of chemical weapons, have requested the five-year extension that is provided for in the treaty for meeting their destruction obligations. The treaty requires that all stockpiles be destroyed by April 2007. Both the U.S. and Russia have now gone to the other CWC states-parties and said, we can't do it by 2007; we need an extension. There are serious doubts about whether Russia can even meet an extended deadline of 2012 unless there is substantially more international assistance provided to the Russian CW destruction program.

One final point that I want to make on the CWC that's not talked about but that I think is important is what some scholars have called the verification imbalance in the treaty. And by this they mean the fact that most of the verification resources of the treaty are being focused on verifying declared stockpiles and monitoring the destruction of those declared stocks. And much less of the verification capability is being directed at preventing dual-use and industry facilities from being used to produce new chemical weapons. I am among those that are concerned about this imbalance in the way the verification capabilities of the treaty are being used. I think it needs to be adjusted in the coming years.

Let me just make a comment about one final issue that I think is corrosive of both the biological arms control regime and the chemical arms control regime. That is the growing interest in what are called non-lethal chemical and biological weapons in a number of developed countries in particular, such as the United States and Russia.

Proponents of these so-called non-lethal weapons believe that they would be particularly useful as an alternative to the use of lethal force in various scenarios—in hostage rescue operations, counter-terrorism operations, humanitarian relief operations, peacekeeping operations—the so-called military operations other than warfare.

There are very real risks associated with non-lethal weapons that all of us, and the parties to these treaties, need to think about. And let me just tick off three.

First, they aren't non-lethal. Their effects clearly depend very much on the health of the target population and the specific circumstances in which they're used. This was demonstrated most vividly by the Moscow theater siege in October 2002 in which a fentanyl-based compound was used to subdue the hostage takers. One in seven of the actual hostages were killed by that so-called non-lethal gas that was used.

A second risk is of course the risk of escalation. Because there is no clear dividing line between non-lethal and lethal weapons, if non-lethal weapons are used in military operations, their use could be misinterpreted as the use of lethal weapons and invite retaliation. And in fact, if you look at the history of chemical warfare over the last 100 years, every use of lethal chemical weapons began with riot control agents or other non-lethal agents.

Finally, these non-lethal weapons certainly complicate, if not undermine, verification. Ensuring that biological and chemical agents are only being developed for permitted purposes is already a huge challenge under both the BWC and the CWC. If we allow military establishments to develop and stockpile non-lethal agents, to test munitions for delivering those agents, to train in the use of those non-lethal agents, I think we could make verification even more difficult.

From a legal perspective, the development of non-lethal biological and toxin weapons would appear to be prohibited by the BWC. But the status of these weapons under the CWC is less clear. The CWC allows the development and production and possession of toxic chemicals for a limited number of permitted purposes, one of which is law enforcement—to quote the treaty, “law enforcement including domestic riot control.” But there's no definition in the treaty and little in the negotiating record that enlightens us about what exactly “law enforcement” means. Indeed, the only law enforcement purpose discussed in the negotiations was capital punishment. So this is a potential loophole in the CWC. I think it needs to be addressed if we are to preserve and protect the norm against CW possession and use that is embodied in the treaty.

Let me turn to my third question, and that relates to proliferation. What has been the impact of these treaties on efforts to try and prevent chemical and biological weapons from proliferating around the globe? It's difficult to draw a direct link between treaties and nonproliferation successes. But I'd like to make three quick points.

First, there is the issue of reassurance. Many of the countries that are parties to these treaties clearly are

capable of producing biological and chemical weapons, but they've decided not to do so. Most of the countries are abiding by their obligations. The treaties have provided these countries, the vast majority of abiding parties, with a legally binding way of reassuring others that biological and chemical weapons are not going to be a part of their military arsenals.

Second, there's the issue of export controls. Both treaties include legally binding obligations not to assist others in acquiring the weapons concerned. I think as a consequence, the treaties have helped legitimize the various export control efforts with respect to chemical and biological materials, equipment, and technology that have emerged over the last 20 years, both national export controls but also efforts like the Australia Group and the more recent Proliferation Security Initiative. In the case of the CWC in particular, there are also restrictions on the transfer of controlled chemicals to non-parties, and this too reinforces nonproliferation export controls.

Finally, there's the issue of enforcement. I believe that the codification of the norm against possession embodied in these treaties provides us with a much stronger political as well as legal basis for acting against those countries that seek to acquire biological or chemical weapons. Of course, that enforcement is only going to be as good as the states-parties decide it will be.

Let me just conclude with a few quick observations.

Any assessment of the impact of the Geneva Protocol, the Biological Weapons Convention, and the Chemical Weapons Convention has to take account of the different times in which these particular treaties were concluded as well as the different nature of their provisions. In many ways the Geneva Protocol was a further step in the codification of the laws of war we saw reflected in the Hague Gas Declaration and the Hague Convention of 1907.

The BWC was one of the first Cold War arms control treaties. Its limitations and weaknesses—the absence of a prohibition on research, the reliance on national technical means for verification—were very much a reflection of what the superpowers would accept in arms control. And the CWC was concluded at the very end of the Cold War when attitudes toward verification were fundamentally different.

That said, any assessment of the impact of these treaties has to focus not only on their provisions but also on how those provisions have been implemented by the international community. I think there's little doubt that these treaties have helped prevent the use of chemical and biological weapons, that they've helped delegitimize the possession of these weapons, and indeed stemmed proliferation. Where there have been failures, and in particular, where illicit chemical and biological weapons programs have been maintained, those failures have not been the result of any treaty but rather of conscious decisions by individual governments. These treaties all have a critical role to play in helping bolster the norm against chemical and biological warfare, both against use and possession, but ultimately their success will depend on the actions of national governments.

MR. STEINBRUNER: Okay, thank you. Fortunately we have time for questions and comment. We have an unusually knowledgeable audience and an interested one too. And let me ask those who do wish to ask questions or make comment to line up behind one or the other of these microphones. As you're moving yourself to do that I'm going to allow myself just one brief comment about all the presentations.

They were describing a history of the business whereby I think it's fair to say the main concern has been to impose limitation or prohibition on the capacity for destruction. And the context for that has largely been historically a concern for large-scale forms of warfare. Obviously, and for obvious reasons, recently we've become more concerned about smaller-scale events. I would argue that as you think about a world in which we do become concerned about smaller-scale events, one of the big things that happens is we become more interested in imposing restrictions on behavior and documenting compliance with that rather than on capacity simply because there is a lot of capacity for destruction out there. So the future of [arms control] might well feature, more than it has in the past, the organized exchange of information to document compliance with standards of behavior. In fact, if you look into the history you can see a lot of that has been happening under these previous agreements.

With that said, we now have people ready to make comments.

Please, Jonathan. Please identify yourself too.

Q: Jonathan Tucker, the Monterey Institute. I have a question for Elisa Harris. You did an excellent job of looking back at what the treaties have accomplished and I wondered if you could look forward. You said, I think, with reason that the current new process, the intercessional process, has very low expectations, but what are the prospects for strengthening the BWC, particularly if there is a Democratic administration in 2005. Would it be possible to revive the BWC protocol, or is that really a dead letter and we have to think about alternative approaches to strengthening the convention to deal with the problem of compliance? Thank you.

MS. HARRIS: I don't know whether the sort of comprehensive approach reflected in the BWC protocol, involv-

ing declaration and on-site inspections, is feasible politically, at least for the near term, even under a Democratic administration. So I think all of us need to think harder about disaggregating the problem and trying to put in place a series of mechanisms that could address the concerns that all of us have, especially about the compliance issue. Let me be more concrete.

The secretary general has the authority under UN resolutions to dispatch inspectors to investigate allegations of the use of chemical or biological weapons. That authority has existed since the 1980s. In the context of this new process, that authority may be extended to include suspicious outbreaks of disease, but I don't think it's enough to just have a response mechanism for after chemical or biological weapons are used or there's a suspicion of their use. Serious thought needs to be given by states-parties to the BWC to creating a mechanism whereby concerns about the development and production of these capabilities, about suspect facilities, can be addressed by the international community. That's one very concrete but defined way in which the international community could begin to address the compliance problem in a more robust way.

MR. STEINBRUNER: Thank you. Please.

Q: My question is for Ms. Harris as well. Chris Fasano, SAIC. You did a nice job talking about the traditional arms control approach at the state level. If you step aside and look at other nonproliferation measures or threat-reduction measures to prevent the spread of these weapons to non-state actors, such as terrorist groups—I'd like to hear your thoughts on those, please. Thank you.

MS. HARRIS: Well, my task was to look at arms control efforts, but I am an enthusiastic proponent of threat-reduction measures. I am among those who believe that it would be very difficult for a sub-national group to mount a large-scale, effective chemical or biological attack absent assistance from a national program. And therefore, I think our focus does continue to need to be on those national programs.

In the case of the former Soviet Union, our primary concern today is that expertise and materials and technology from that program will proliferate to Iran and others. And so I think it's critically important that we develop more resources to help the Russians, for example, accelerate their chemical weapons destruction program so that the thousands of tons of highly lethal nerve agent they possess are eliminated. We need to devote more resources toward working with former Soviet chemical and biological scientists to give them meaningful opportunities to conduct relevant research and therefore to be able to fend off the approaches that we've seen by countries like Iran that are quite interested in getting access to the expertise from the former Soviet programs.

We need to do more in terms of dismantling former production facilities. So I think there's a very substantial threat reduction agenda in the chemical and biological area. It has to be approached carefully because obviously we don't want to be providing assistance that could ultimately facilitate illicit activities in Russia. There are of course still concerns about Russian compliance with the CWC and BWC.

But I think it was shown during the 1990s that these programs can be pursued successfully, and I hope that whatever administration is in power a year from now would devote far more resources to this than has been the case over the last three years.

Q: I'm Greg Thielmann, retired State Department. I have a question for any of the participants about the terminology that we use to describe some of these weapons. We use the term "weapons of mass destruction" to talk about all of the three categories of the weapons of concern here, and, historically speaking, in World War I it was machine guns and artillery that killed far more people than chemical weapons. In World War II, had chemical weapons been used, it's hard to imagine they would have killed more people than the incendiary bombings of the American and British forces.

Why don't we use terms like "illicit weapons" or "unconventional weapons" instead of lumping nuclear weapons, which are truly weapons of mass destruction, in with chemical and biological weapons?

MR. STEINBRUNER: Ambassador Abe do you have thoughts on that?

AMB. ABE: Yes. These days there is sort of a spread of the terminology "WMD," and some call it misuse of the terminology "WMD" because we now have these small arms and light weapons. Some people call it *de facto* weapons of mass destruction because they are killing a lot of people, for example, in civil conflicts in African countries.

But I think the [issue] here is that three kinds of weapons of mass destruction can kill and destroy such an enormous volume of life and facilities with just a single shot. That is, I think, the [issue]. Indeed, machine guns and small weapons kill as a total, but you have to carry those weapons with soldiers, and you have to go there, and that

takes individual soldier's decisions, individual platoon commanders, and those things.

That may not be a very good expression. The magnitude is so different and therefore people came to call them weapons of mass destruction.

Indeed, there is also debate about the differences among the three categories, because nuclear, for instance, once it's used there is virtually no way to protect. There is enormous force of destruction. There is no way you can protect yourself. But chemical or biological, with appropriate protective gear, you can still protect yourself even if the enemy has used them. So some people argue that there is even first-class WMD and second-class WMD. They're not weapons of mass destruction. Analysis done by OTA [Office of Technology Assessments] in the early 1990s showed that even under the most optimistic scenarios, an aircraft delivering nerve agent would only produce, in the best circumstances, thousands of casualties, whereas the same aircraft delivering a payload of anthrax, for example, could produce casualties up to 2 million people. So I think biological, clearly as I would define it, falls into the category of weapons of mass destruction. Nuclear weapons of course, as well. But we should be careful about sort of using that expression as a sort of shorthand way of describing chemical weapons.

MR. NEWHOUSE: I'd agree with the inference in Greg Thielmann's question that the term unconventional weapons is far preferable to weapons of mass destruction.

Q: Avis Bohlen, retired State Department, former assistant secretary for arms control. I have just a couple of comments. First of all, it seems to me that if we are to define a useful role for arms control in today's world, we need to recognize the limits of what arms control now and historically has been able to accomplish. Arms control does not exist in a vacuum, its successes or failures are conditioned by the political context in which it lives. During the Cold War, arms control never succeeded in controlling any weapons until the Cold War began to be over, at which point we had all the Bush administration treaties, and I think that was the dominant fact—not the fact that we had a Republican president and a Democratic Congress.

And similarly, I think the success of the NPT... has relied on the fact that most countries, even though many of them would have the capacity to develop nuclear weapons, do not choose to do so because they do not feel compelled for reasons of their own security, or other political reasons, or whatever. And what arms control does, both in the case of the Cold War and the NPT, is to reinforce this political fact. But it cannot create the political fact by itself of countries deciding they don't need nuclear weapons. [Chemical and Biological weapons], the same thing. It seems to me the BWC both reflects and reinforces the general consensus against BW, its use and/or its possession.

So what we're left with are a handful of problem countries—you can call them rogue states, you can call them other things because they're not solely limited to the number of rogue states—but you have to start with an analysis of the political reasons that have led these countries to try to develop these capabilities. And I think that's absolutely the essential point of departure, and I'm sure that none of the panelists would disagree with this, but I think all too often we tend to behave as though arms control were an independent actor.

Second point, we've only talked about the treaties this morning but it seems to me in today's world that treaties are only one part of the picture, in particular the Nunn-Lugar cooperative threat reduction are absolutely essential instruments, both for the reduction of nuclear weapons—the Russians never would have been able to implement the START treaties without this—the importance to the Russian destruction of chemical weapons, the tightening of nuclear controls, et cetera, et cetera. You all know that.

Just two final points. Elisa, it seems to me that there is room for a challenge inspection provision in the BWC. I totally agree with you about not reviving the protocol—it was not going to fly anyway—but something that countries could agree on, that would be a multilateral instrument would be a stronger challenge inspection provision. And finally, let me associate myself wholeheartedly with Greg Thielmann about the use of the weapons of mass destruction—I think the smushing together of all these things have permitted, as we have seen over the past year, a very irresponsible use of the term WMD threat by the Bush administration and also by Tony Blair in England, and it is essential to be clear that the threat is nuclear and maybe some categories of BW, but it is not most BW or CW. Thank you.

MR. STEINBRUNER: Thank you, let me take that as a comment rather than a question and have the other people at the microphone make their comments and questions before the panel begins to reply. So you'll have to keep in mind the things you want to respond to. You will have the last word.

Q: Nancy Gallagher, University of Maryland. My question is for Under-Secretary General Abe. You talked about the very important historical relationship between the NPT and the CTBT, and I'm wondering whether you see that relationship continuing to be equally strong, and in particular, if in the coming year, the administration—

whether it's the existing administration or a different administration—were to step back from its current policy of continuing the U.S. nuclear testing moratorium, do you think that the international reaction would be comparable to what happened with the ABM treaty withdrawal—a lot of disapproval but nothing that seriously hurt American national security interest—or do you think the reaction would be something much stronger than that?

AMB. ABE: I'm not sure I got your question correctly but I think CTBT is still a useful arms control disarmament and nonproliferation tool and international treaty. It has a value to greatly reduce the efforts to upgrade existing weapons of a nuclear-weapon state, and also it has a great value in preventing proliferation, but this is almost a cat and mouse game as you have been observing. When countries these days cannot test themselves it seems some of them are sending their equipment to another country to test there. Or it gets all the results from that country so in future time, those proliferators may get satisfaction with the reliability of their nuclear devices without even testing them in their own territory. So in that case we may have to come up with other, additional tools to prevent proliferation.

So as someone said, those treaties are not for everything—they're not a panacea—they are only part of the network of preventative measures.

Q: Vaughn Johnson from Wright-Patterson Air Force Base in the treaty office at Air Force Materiel Command. Question for Ms. Harris. On CWC, as you know, we have spent a lot of time and money in the Air Force in preparation for challenge inspections, but have not had any in close to seven years. What do you think is the likelihood that we would ever see one in the near future? Secondly, would you amplify a little bit more on the verification imbalance that you covered on earlier?

MS. HARRIS: Okay. First, challenge inspections. If we have good, solid intelligence information about a violation underway at a specific site in a specific country, I would certainly hope that the treaty parties would use the challenge inspection provisions that are available. There are of course other ways of pursuing compliance concerns. There are consultation and cooperation provisions in the CWC which have been used extensively by the United States since entry into force to resolve questions about the declarations of certain states-parties. I think it's quite possible that the challenge inspection provisions will be used. In the meantime, we need to do what we can to make sure that the OPCW [Organization for the Prohibition of Chemical Weapons] is ready to carry out that type of inspection, and that means continuing to do mock challenge inspections, including, as others have suggested, in parts of the world where they haven't been carried out up to this point in time.

On the issue of the verification imbalance, what I was trying to get at is the fact that the bulk of the verification resources of the convention have been directed at dealing with munitions and the destruction of those munitions. Over two-thirds of the inspections that have been done have been to confirm that the declarations on stockpiles are accurate and then to monitor those stockpiles pending destruction, and then to monitor the destruction process. As the chemical weapon stocks continue to decline—and we've already seen a reduction in 25 percent of the munitions—the greater risk to the non-possession norm is that countries will use the capacity that exists in the chemical industry to launch new armament programs. We need to see a shift over time in verification resources toward the industry side and in particular toward the—I hate to get into this—discreet organic chemical producers that can very quickly shift from production of one type of chemical to another. The breakout capability for the CWC is there in the chemical industry, and I think we need to face it more squarely than has been the case up until now.

Q: Jonathan Dean, Union of Concerned Scientists. My question is for Ambassador Abe. You mentioned, Ambassador, the proposals of Dr. ElBaradei to place enrichment plants under international control, and it does seem to me that that is an extraordinary admission on the part of Dr. ElBaradei, of the inability of the IAEA to actually do its safeguards job, even with the additional protocol, and I point out that even international control as he proposed it, would not prevent the illegal centrifuges that have turned up in Iran, Libya. So it seems to me that we need an array of new measures to control these transfers. Would you comment both on the capacity of IAEA and on that point? Thank you.

AMB. ABE: Thank you. You touched on a very important point, and I have a couple of points I wanted to make. First of all, Mr. ElBaradei, in proposing international control of fuel cycle, did not admit the failure of the IAEA. It was the problem of allowing countries close to weapons production by allowing them to have enrichment and reprocessing plants. That is the question. Some people these days call those suspected proliferators, smart proliferators. You can go to being legitimately under the NPT and IAEA to owning a huge enrichment facility, saying it is to produce low-enriched uranium for power generation. But one day you can use a cascading effect to produce highly enriched uranium.

There's a separate question about this concerning arms control. All the selling and the complacency being involved in arms control business, it is sort of bureaucratic inertia of each agency or the keeper of the treaties. To sell, this is a very powerful tool. We can't do everything to prevent proliferation. That's almost human nature to do so. By doing so, in a way, you give, implant a sort of, a sense of complacency among the people and make people come to think, okay, the biological weapons are taken care of, chemical weapons are taken care of, but it's not true, as Avis said. They can be only useful as a part of the set of measures, national means of verification, plus those international obligations. One day I asked Richard Butler, the last chairman of UNSCOM [UN Special Commission]. He told me, no, don't put all the responsibility on verification. You can't do everything with it. It's only useful as a set of, first, political commitments of the countries not to have those weapons, and second, international legal obligations not to have them. Verification regimes can do a useful work to verify non-possession or nonproliferation. So I think that's the problem.

Then this question of internationalization—I think it's one very interesting proposal by Mr. ElBaradei. There are two big questions to implement it. One question is there are already countries with vast fuel cycle industries like Japan, Germany, Belgium, and Canada—it would be very difficult to persuade those countries to submit the existing facilities. It's a billion-dollar industry for those countries. How do you do it? But if you allow them to keep them and if you say we just want to prevent the new ones to do so, countries like Iran will immediately say, this is discrimination, and how can you multilaterally agree on such a measure. That's a big challenge but I think we need to explore this possibility.

MR. STEINBRUNER: This will be the last question, and the panel can respond to what he is about to say and to the others, but we have just a few minutes left.

Q: Thank you, it's a great honor to be among the last. Vladimir Rybachenkov, Russian Embassy, senior counselor for political and military affairs. I have a question to Ms. Harris. I've heard you mentioning Russia among your proliferation concerns inside Chemical Weapons Convention. Well, it's rather strange for me to hear it, taking into account that Russia as well as the United States, is a founding member of the convention and there we do have a rather developed partnership in this field together with the United States. But nevertheless I would like to ask you, do you have some specific concerns that could be presented to the organization of the Chemical Weapons Convention? We did have a lot of inspections and no concerns registered, and do you have any specific concerns that could be presented at that organization or are they just some theoretical concerns that, well, for example, Russia also has about chemical weapons and the United States? I do understand that we have a free conference and it's proper forum to discuss these issues, it's not a formal talks among government so we must discuss these concerns here. Thank you.

MS. HARRIS: I don't think it's a secret that there have been concerns since even before entry into force of the CWC about Russian declarations under the Wyoming MOU, the bilateral data exchange that the U.S. and Russia had. And those concerns have revolved around three issues. The first is the size of the stockpile that has been declared. Russia has declared a stockpile of 40,000 metric tons of chemical agents. There are questions, at least within the U.S. government, as to whether that is in fact the total size of the stockpile that Russia inherited from the former Soviet Union. Secondly, there have been questions about the composition of the stockpile and in particular about the work on "novichoks" under the former Soviet Union—agents that are based on chemicals not on the CWC schedules. Russia has acknowledged that such weapons were researched under the former Soviet Union but has not acknowledged that those "novichoks" form part of the existing stockpile. This is a question about which there are concerns in the U.S. Finally, there have been concerns about whether or not all of the facilities that were part of the Soviet chemical weapons program have been declared as required under the treaty. It has been a while since I saw the details on all of this but I think Russia declared only a very limited number of development facilities for a stockpile of tens of thousands of tons of a variety of agents and munitions types. So there are outstanding concerns about whether the facility declarations have also been fully accurate.

I just want to react to two things that Avis said. First, just to keep the record straight, on the issue of the protocol, I think a comprehensive approach is preferable, would have been preferable, and did not share the view of the Bush administration with respect to the protocol under negotiation. Declaration and inspection provisions are mutually reinforcing, and if we could get both, I think that that would be very valuable to the BWC. What I was trying to say in my comments on the protocol is that, at least for the foreseeable future, I don't think this sort of comprehensive approach is politically feasible and therefore I think we need to break apart the problem and focus on the most urgent pieces, I would start with creating a capacity to pursue concerns about suspect facilities.

Secondly, on the issue of context, I was trying to make a similar point and in fact, looking for a quote from

Richard Butler, which I think makes part of this point as well. He said in an article last fall, "The effectiveness of these nonproliferation treaties relies not only on their substance and their means of verification but ultimately on the political attitude expressed by the international community toward them." I think that's absolutely right.

Finally as Under-Secretary Abe has said, arms control treaties are but one tool to deal with weapons proliferation threats. We have intelligence, we have export controls, we have sanctions. None of these are perfect. When export controls fail to stop the transfer of a chemical or biological item, we don't say that export controls are useless. When the intelligence community fails to provide policymakers with an accurate assessment of a threat, we don't say intelligence is useless. We accept that these are not perfect instruments but recognize that they still are of real utility in addressing proliferation problems. We should hold arms control treaties to the same standard we hold intelligence, export controls, sanctions, and all the other measures. We shouldn't expect perfection and we shouldn't assess their value in terms of whether they are always 100 percent effective.

MR. STEINBRUNER: Thank you. Briefly please, John.

MR. NEWHOUSE: With regard to Avis' comments I certainly agree with a great deal of what she said but I'd like to add a point going back to the Cold War period. I think there was a tendency here in both the executive and legislative branches to misread the stakes of the various parties, including ourselves. I don't think we fully understood the intensely political nature of this process and how important it was at the time to sustaining and, in a sense, legitimizing our unique role in the world. It was unique then just as, of course, it is now.

It's even more interesting in the case of the Soviet Union. This process was deeply important to the Soviet leadership. The process of setting limits on strategic weapons was the only vehicle by which the Soviet Union could equate itself with the United States. Otherwise the Soviet Union was anything but a superpower. It was a third-rate power throughout that period. But it was the only other power that obviously could deploy strategic nuclear weapons.

Often in the negotiations—both the SALT I and SALT II negotiations—our internal politics would drive the leadership and the negotiators to demand stuff from the Soviet Union—concessions if you will—that they seemed most unlikely to grant. But almost invariably we took this hardened U.S. position to the table and they would accept because the process was just that important to them. We understood, I think better at the time, how our allies looked upon the process, which was deeply ambiguous. If the process wasn't going anywhere, if we seemed to be giving the Soviets the back of our hand the tendency in allied capitals would be these Americans don't realize how much power they deploy and how they're capable of blowing up the world when they've got to get into some sort of a process with the Soviet Union—a workable political process. And then when the process seemed about to bear fruit and we were going to have an agreement, the reaction in allied capitals would be one of great nervousness, and they'd say, oh, the Americans are negotiating over our head, they're creating a condominium with the Soviet Union. So you could never be confident of getting it right vis-à-vis the allies. Everybody had different sets of stakes and we understood the allied capitals, I think, a great deal better than we understood our own stake and certainly the Soviet stake.

PANEL BIOGRAPHIES

CHAIR • John Steinbruner

Chairman of the ACA Board of Directors, John Steinbruner is Professor of Public Policy at the School of Public Affairs at the University of Maryland and Director of the Center for International and Security Studies at Maryland. He is also currently Vice-Chair of the Committee on International Security and Arms Control of the National Academy of Sciences. Dr. Steinbruner previously served as Director of the Foreign Policy Studies Program at the Brookings Institution and has taught at Yale and Harvard. He has written extensively on national security issues and authored several books, including *Principles of Global Security*.

MANAGING THE U.S.-SOVIET ARMS RACE • John Newhouse

John Newhouse is currently a Senior Fellow at the Center for Defense Information (CDI). Prior to joining CDI, Mr. Newhouse served for several years as a senior policy adviser on European affairs to then-Deputy Secretary of State Strobe Talbott. Two decades earlier, he was involved in the Strategic Arms Limitation Talks with the Soviet Union as the Assistant Director of the Arms Control and Disarmament Agency. Between these two stints of government service, Mr. Newhouse was a guest scholar at the Brookings Institution and a staff writer for *The New Yorker*. In addition to his latest book, *Imperial America: The Bush Assault on the World Order*, Mr. Newhouse has published other books on arms control, including *Cold Dawn: The Story of SALT* and *War and Peace in the Nuclear Age*.

CONTROLLING THE SPREAD OF NUCLEAR WEAPONS • Nobuyasu Abe

Ambassador Nobuyasu Abe, who joined the Japanese Foreign Service in 1967, is the UN Under-Secretary General for Disarmament Affairs. Prior to being appointed as the international community's point person on arms control issues, Ambassador Abe helped organize the Tokyo Forum for Nuclear Non-Proliferation and Disarmament as Japan's Director-General for Arms Control and Science Affairs. During his decades of experience in the Japanese Foreign Service, Ambassador Abe played an important role in Japan's ratification of the Ottawa Convention banning anti-personnel landmines, pressed for the entry into force of the Comprehensive Test Ban Treaty, and helped negotiate an international instrument on the illicit firearms trade.

OUTLAWING CHEMICAL AND BIOLOGICAL WEAPONS • Elisa D. Harris

The former Director for Nonproliferation and Export Controls on the National Security Council (NSC) from 1993-2001, Elisa D. Harris is currently a Senior Research Scholar at the Center for International and Security Studies at Maryland. At the NSC, Ms. Harris coordinated U.S. policy on chemical, biological, and missile proliferation issues. In addition to serving on the staff of the House of Representative's Committee on Foreign Affairs, she has held research positions at the Brookings Institution, the Royal United Services Institute for Defence Studies, and the Center for Science and International Affairs. She has testified before Congress and published numerous articles on chemical and biological weapons issues.

More than a decade after the end of the Cold War, deliberate attacks by hundreds or thousands of nuclear warheads from Washington or Moscow seem impossibly remote. While this danger has receded, nuclear rivalries and risks of nuclear war have grown more severe in other parts of the world. The Middle East, the Korean Peninsula, and South Asia are all regions home to nuclear powers or countries with nuclear ambitions. Many of these countries share a seemingly implacable distrust and hostility toward one or more of their neighbors or fear U.S. intervention into their regional and internal affairs. Many also bear a deep-seated resentment that they are not seen as rightful possessors of nuclear weapons, in contrast to other states whose stockpiles have been permitted by international law or tacit acquiescence.

Over the past several months, the strategic situation in the Middle East has been shifting as fast as desert sands. Saddam Hussein's brutal reign and his unrealized weapons ambitions are no more, Libya unexpectedly announced it will abandon all efforts to acquire weapons of mass destruction, and Iran has pledged to open itself up to more intrusive international arms inspections to verify that it is not seeking nuclear weapons—even though evidence suggests otherwise. However, one constant remains: the arms race between Israel and its Islamic neighbors. On the conventional side, Israel appears unsailable except to individuals willing to blow themselves and other people up. But weapons of mass destruction (WMD) are perceived as an arena in which Islamic nations can match Israel's decades-old arsenal. To be sure, countries in the region have other motivations for pursuing WMD programs than simply balancing or countering Israel's mix of armaments, such as poor relations with each other, acquiring symbols of status and power, and warding off interference from larger powers. Nevertheless, as long as one country in the region possesses nuclear weapons, others will be tempted to follow suit. A permanent solution to the proliferation of WMD in the Middle East will require addressing all the reasons why governments seek these weapons.

North Korea may not have nuclear weapons, but it has all the fissile material that it needs to make several soon—along with the capacity to build an entire arsenal. Pyongyang also is one of the world's top proliferators of ballistic missiles and reportedly threatened in a private April 2003 meeting with U.S. officials that it would export nuclear weapons. North Korea's weapons capability is only exceeded by its bellicose rhetoric. Despite its tough talk and provocative actions, North Korea has so far refrained from unambiguously joining the nuclear club, preserving hope that it might still shelve its nuclear weapons effort as it agreed to do once before in the 1994 Agreed Framework. Whether the United States and the international community are able and willing to repeat a similar deal remains to be seen.

There is nothing ambiguous about Indian and Pakistani nuclear capabilities. In a series of tit-for-tat nuclear tests in May 1998, the two bitter rivals publicly disclosed their status as nuclear powers and successive crises have brought them to the nuclear brink. They treaded so near that Secretary of State Colin Powell once publicly fretted, "It would be horrific, in the year 2002, to see a second use of nuclear weapons in history...And we do not want to even contemplate the use of nuclear weapons, and that is my message to both of them." The beginning of peace talks next month between the two countries herald hopes. It should be increasingly evident to the two countries that nuclear weapons have not improved their security, brought stability, or resolved persistent domestic ills. Helping ease tensions between India and Pakistan to prevent them from charging or stumbling into a nuclear war against each other must be one of the international community's top priorities. Another needs to be guarding against the leakage of nuclear arms, secrets, or technologies from the subcontinent.

—*Arms Control Association*

PANEL TWO *Meeting Today's Proliferation Challenges*

CHAIR: Robert Gallucci,
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THE MIDDLE EAST: Robert
Einhorn, *Senior Adviser,*
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NORTH KOREA: Daniel
Poneman, *Principal, The*
Scowcroft Group

SOUTH ASIA: George
Perkovich, *Vice President for*
Studies, Carnegie Endowment
for International Peace

ROBERT GALLUCCI: As we wait for people to find seats I thought I'd tell you a Paul Warnke story here that bears somewhat on North Korea. This is actually a true story.

Right after we had negotiated the Agreed Framework with North Korea in 1994, some of us—particularly Dan [Poneman] and myself—were out in a sense selling the framework as best we could. And I went on one of these TV shows that USAID runs, and they had two—because they insist on balance; it was not my idea (laughter)—they had two rather hostile critics there and they also had Paul Warnke. And I figured, well, this is pretty good: two guys against the framework. And Warnke and I will be for the framework, and given Paul Warnke's skills I won't have to say much, and this will be pretty good.

And so I gave my pitch about why the agreed framework was, of course, the best agreement that God could have conceived (laughter) and then the critics lit into me. And I'll spare you their names, but you would recognize them. And one went after the technical side of the deal on about how much plutonium is produced in light water reactors, and you've got to be crazy to make a deal which gives them the light water reactors. And then when Henry finished (laughter) then the other one went into the political side and the enormous naïveté it would take to do a deal with North Koreans. And I was waiting for, of course, Paul Warnke to come and smite these two attackers. And he said—I can't do a Paul Warnke impression, but with his gravelly voice he said, "Well, actually, I could have written a much, much better agreement than the agreed framework." (Laughter.) And I was devastated. Then he said, "But of course, I could not have negotiated such an agreement; I could have written it. (Laughter.) This was the best one that could have been negotiated." Now, I thought, that was Warnke. It was very pleasing to me.

We will, of course, I suspect, have some words today about the framework and about North Korea. Speaking on North Korea will be Dan Poneman. He comes to us now from his position as a principal with the Scowcroft Group. He has been at the NSC, first as director of Defense Policy and Arms Control and then as special assistant to the president and senior director for Nonproliferation and Export Controls.

I have known Dan, it seems to me, close to 30 years since he was an undergraduate at Harvard, and I imagine when he talks about this he will talk about a breathtaking and groundbreaking book that's coming out called "Going Critical: The First North Korean Nuclear Crisis." And I just think it's going to be extraordinary, Dan, and I certainly hope you'll say something about it, because your other two co-authors, Joe Witt and I, will appreciate that. (Laughter.)

Speaking on the Middle East will be Bob Einhorn. When I got to the Arms Control and Disarmament Agency in 1974, Bob was already there. He is now senior adviser at the Center for Strategic International Studies and he has been assistant secretary of state for nonproliferation and has had a long and distinguished career in government service.

Speaking on South Asia is George Perkovich, who is currently vice president for Studies at the Carnegie Endowment. He had been at W. Alton Jones, and we all depended on him when he was in that mode as he was director for programs and the director of the Secure World Program. As I think all of you know, George has written an extremely important

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book for generalists in the nonproliferation area and for specialists in South Asia: *India's Nuclear Bomb*.

This is an extraordinary panel. Bob Einhorn is, I think, the most talented person I know in the field we're now talking about in multilateral diplomacy. Dan is definitely among the most effective policymakers in the field I ever saw, and George, without question, has added an intellectual approach to this topic that we were deeply in need of. So I'm really looking forward to the presentations.

And I think we're supposed to start, Bob, with you, if you would.

ROBERT EINHORN: Thank you very much. It's a great honor to be at a conference dedicated to Paul Warnke. I was, as Bob mentioned, an official at the Arms Control and Disarmament Agency when Paul was director. During that period, from 1977 to 1979 or so, Paul was head of the American delegation to the trilateral negotiations on the Comprehensive Nuclear Test Ban, and I was one of the junior members of his delegation. It was really a wonderful time, and due to Paul's extraordinary efforts, we almost succeeded then. It's too bad we didn't. If we had succeeded then, some of the subsequent developments in the nuclear field would not have occurred, and I think some of the instabilities that developed with accurate MIRVs could have been avoided. In any event, it was a great honor for me to have worked with Paul.

The organizers and Bob have asked me to talk about the Middle East and prospects for weapons of mass destruction [WMD] proliferation there. In terms of WMD threats in the Middle East, 2003 was a pretty good year. Just think back to the beginning of last year. Things were looking pretty ominous. Intelligence agencies in the United States and elsewhere were convinced that Iraq possessed chemical and biological weapons and was reconstituting its nuclear weapons program. And at the very minimum, Iraq's neighbors in the Middle East were uncertain about Saddam's WMD intentions and capabilities, and this uncertainty was a factor motivating some of them, especially Iran, to pursue weapons of mass destruction programs of their own.

On Iran, disclosures by dissidents about two sensitive fuel-cycle facilities and investigations by the International Atomic Energy Agency [IAEA] had revealed that Iran was making an alarming amount of progress in its uranium enrichment program, and therefore in its nuclear weapons program.

On Libya, the U.S. and other countries were growing concerned that Gaddafi's longstanding nuclear and missile programs were finally getting some traction and could no longer be considered a joke. And these situations in Iraq, Iran, Libya, when added to Israel's already advanced but undeclared nuclear capability and Syria's relatively sophisticated chemical and missile capabilities, suggested that the Middle East region was destined to become a region saturated with weapons of mass destruction.

A year later, at present, things have changed quite significantly. Both the fears and the uncertainties about Iraq's WMD capabilities and programs have largely been eliminated. Faced with the prospect of an IAEA Board finding of non-compliance and the possibility of UN Security Council sanctions, Iran has agreed to suspend enrichment and reprocessing activities, to adhere to the IAEA additional protocol, and to make a full disclosure of its nuclear program. And of course Gaddafi has now decided to come clean about Libya's WMD programs and to permit their elimination under verification. And just as importantly, Libya is providing information to U.S., British, and IAEA officials about its sources of supply, and hopefully this is going to permit strong action to be taken against the black market networks that constitute one of the greatest threats to the nonproliferation regime today.

Now, the Bush administration and its critics are debating why these positive developments are occurring. Administration officials claim that it's the Bush administration's tough national security strategy and the so-called "demonstration effect" from the Iraq military operation that is responsible, and that this has caused Iran and Libya to have second thought about their weapons of mass destruction programs. The critics, however, argue that the Libyans and Iranians are motivated at least as much by positive inducements as by fear. They say that recent progress is a confirmation that multilateral institutions and carrot-and-stick diplomacy can be successful. Now, whoever is right—and I would say that both sides of this argument are right to some extent—but whoever is right, the outlook today for curbing WMD proliferation in the Middle East, I think, is much better than it was just a year ago.

So what should we be doing to try to keep this pointed in the right direction? On Iraq, I think the priority should be preventing any residues from Saddam's WMD programs from becoming the seeds of WMD programs in Iraq or elsewhere. And so the Iraq Survey Group should keep pressing to try to find out whatever happened to the weapons, the precursors, the materials, the blueprints, and so on. And coalition authorities should do whatever they can to keep track of key Iraqi former weapon scientists, to provide them with professional opportunities in the civilian sector, and to make sure that these former scientists aren't peddling their know-how outside of Iraq or even to insurgents inside Iraq.

In our dealings with future Iraqi authorities, I think U.S. officials will need to make clear the importance they attach to avoiding any WMD recidivism in Iraq, and I think they're also going to have to work closely with Iraqi

defense institutions to make sure that Iraq develops the kind of army and the kind of conventional defense capability that reduces Iraq's incentives for developing weapons of mass destruction in the future.

On Iran, I think the challenge is much more difficult than it is in Iraq or elsewhere in the region. Iran's agreement this past fall to adhere to the [IAEA] Additional Protocol and suspend enrichment activities was hardly an indication that Iran's leaders have made the fundamental decision to abandon their quest for nuclear weapons. Indeed, Iran has already begun to arouse suspicions by insisting that its suspension of enrichment be defined in a very narrow way.

Still, I think it may be possible over time to bring Iran's leaders to the conclusion that nuclear weapons are simply not in Iran's national interests. The key to bringing them to this conclusion, I think, is for the United States, Europe, and Russia to stick together and to confront Iran with a very stark choice. It can be a pariah with nuclear weapons or it can abandon its ambitions to get nuclear weapons and become a well integrated member of the international community—politically and economically. It has to be made very clear to Iran that giving up the nuclear option convincingly means giving up the capability to enrich uranium. The suspension of enrichment and reprocessing activities must sooner or later be replaced with a permanent prohibition on those capabilities, and that will mean eventually the dismantlement of existing facilities. And in exchange for giving up the right to produce enriched uranium fuel, Iran should receive a multilateral guarantee that as long as it lives up to its nonproliferation obligations, it would be able to buy reactor fuel for any nuclear power reactors that it decides to build. And the Europeans, Russians, and Americans should get together to offer such a guarantee.

Such a fuel assurance might well address possible Iranian concerns about arbitrary future cutoffs of fuel supply, but it won't address what I believe is Iran's principal motivation for seeking the nuclear option, and that is security. With the Iraq threat gone, as far as Iran is concerned, Iran's main security preoccupation today, I think, is the United States, and specifically a concern that the Bush administration may be interested in putting pressure on Iran, even toppling its regime. And that's why I believe that a permanent solution to the Iran nuclear issue will probably require a fundamental improvement in bilateral relations between the U.S. and Iran. And the sooner these two countries begin to engage one another and explore the possibility of a *modus vivendi* that can address the concerns that each side has, then I think the sooner it may be possible to reach a durable solution to the Iran nuclear problem.

On Libya, things seem to be moving in the right direction. The U.S., U.K., and the IAEA are working to document and dismantle Libya's WMD programs. I wish I could say that they were working collegially to do this, but that's clearly not the case. The U.S. and the U.K. have a legitimate interest to be fully involved in this process. They have a great security stake in being involved in the process. But the IAEA's role is also legitimate and central. And I think the Bush administration would be well advised to recognize that its longer-term nonproliferation objectives would be served by not trying to marginalize the IAEA on Libya.

Syria has come under strong pressure from the United States since the invasion of Iraq. In some areas, such as preventing the movement of foreign fighters through Syria to Iraq, Syria seems to be trying, at least, to accommodate American demands. But on the question of abandoning its weapons of mass destruction capabilities, especially chemical and missile programs, Syria has so far given no indication that it is prepared to follow Gaddafi's lead.

Syria very much sees its non-conventional weapons capabilities as a counter to Israel. If it's prepared to put those programs on the negotiating table at all, it will probably be in the context of a peace settlement with Israel, and even then, it might argue that it needs to hold on to those capabilities as long as Israel retains nuclear weapons.

Now, in the period ahead, Israel clearly can expect to become the focus of increased attention. Already Libya, Syria, and Egypt have raised the question of a double standard in the Middle East, and they have urged Israel to relinquish its nuclear weapons capability. And reportedly, Israel is giving consideration internally to how it can respond.

In my view, it's unrealistic to expect Israel to do very much at the present time, and especially on the nuclear issue. It's certainly true that the fall of Saddam, the apparent end of Libya's WMD programs, and positive steps in Iran have diminished the WMD threat faced by Israel. But the Israelis correctly point out that the Iran issue has not been resolved, and, more fundamentally, the Israelis believe that the Arab world today is less prepared to accept the existence of the state of Israel than it was during the 1990s when the peace process was moving forward in a very purposeful and promising way. And as long as the Israelis face what they regard as an existential threat, they're going to be reluctant to surrender what they see as an ultimate guarantor of their security.

Still, in order to keep the positive momentum going within the region, Israel needs to consider what it can do now. George Perkovich and Avner Cohen have recently suggested that one step Israel could take is to ratify the Chemical Weapon Convention [CWC] and adhere to the Biological Weapon Convention [BWC]. I think this would be a very good idea.

But on the nuclear issue, I wouldn't expect very much. One thing Israel certainly can do and should do is to

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state that, in the context of a comprehensive and durable peace in the Middle East, it's prepared to give up its nuclear option as long as others in the region, including Iran, do the same. Now this was a position that Israel had adopted in the early 1990s. It apparently remains Israel's position, but we don't hear much about it today. I think in the current context, it would be very valuable for Israel to state that it is not committed to keeping the nuclear option forever, that it's prepared to renounce a nuclear weapons capability under certain conditions.

Finally, an important way of addressing the Middle East WMD threat in the longer term is to try to reestablish a region-wide multilateral forum on arms control and regional security. Such a forum existed from 1992 to 1995 and made some impressive progress, including on confidence-building measures. I see two key participants in that process in the audience—Ambassador Nabil Fahmy from Egypt and Bob Gallucci, one of the early chairs of the Arms Control and Regional Security Working Group. It made some impressive progress during that period, but it had a number of flaws. Syria wasn't involved, Iraq wasn't involved, and Iran wasn't involved. In the future, perhaps that could be corrected. And of course, it eventually broke down, in large part over disagreement between Egypt and Israel about how to deal with the nuclear issue. Given the raw nerves that exist in the region today over the Israeli-Palestinian problem, it's hard to imagine resurrecting this forum—or ACRS, as it was called—in the immediate future. But we should look for opportunities to do so, to resurrect this body as soon as conditions permit.

So my bottom line is that the Middle East is not going to become a zone free of weapons of mass destruction any time soon. Indeed, one would have to be quite an optimistic to think that the Middle East will ever become a region free of all weapons of mass destruction. But I think that developments over the last year provide some grounds for believing that a Middle East with several nuclear powers is not inevitable, whereas a year ago a Middle East with at least several nuclear powers seemed a foregone conclusion.

Thank you.

MR. GALLUCCI: Thanks, Bob.
Dan?

DANIEL PONEMAN: Thank you, Bob, and I, too, am honored to be here in this distinguished group. I look around the room and I see people who have been seminal in various nonproliferation efforts going back literally to the birth of the NPT [nuclear Nonproliferation Treaty].

It's hard to talk in this distinguished audience about North Korea, which has been a hardy perennial of these discussions. I'm reminded of a remark that Morris Udall once said, which is everything that can be said has been said, but not everyone has said it. (Laughter.) So I will think of that.

I'm torn between the admonition from Daryl Kimball not to talk about the past, and Bob's request for a plug, so I'll go with my dean (laughter) and say, yes, *Going Critical* is a story of the 1993-94 North Korean nuclear crisis in which Bob led his hardy troops to an Agreed Framework. And I will refer to it only *au passant* from now on so it will not offend our other sponsor here.

I thought I would break my remarks into three sections: One, diagnosis—where are we with this particular nonproliferation crisis; secondly, prognosis—where are we headed essentially if we straight-line what we're doing; and third, since this is Washington, prescription—what should we be doing, perhaps, beyond what we are doing.

Diagnosis. This is a story that can be briefly, although sadly told. We have a North Korean nuclear program that is now unshackled. The inspectors are gone. The seals are broken. The cameras are shut off. The spent fuel pond that up until at least last December held 8,000 spent fuel rods containing five to six bombs' worth of plutonium apparently are gone. Sig Hecker and others have seen a grayish substance which has asserted to be, and may well be in fact, separated plutonium. They already potentially had enough plutonium in North Korea for one to two nuclear weapons. This additional separation, if in fact complete, as may well be the case, would bring them the possible acquisition of five to six more weapons.

If they were to restart the 50-megawatt reactor, which was shut under the terms of the agreed framework, that could bring them an additional five to 10 bombs' worth of plutonium a year once that is up and running. And in addition to that we have, or don't have, or think we have, but there might be, but we're not sure (laughter) an HEU [highly enriched uranium] program, which, if it does exist—and I don't mean to be too flip about it—seems to exist, could bring them about three bombs' worth of plutonium a year.

So, left unchecked, what we're heading toward is a North Korea that could be turning out enough weapons-grade material for on the order of a dozen nuclear weapons per year. It is important to note that the weaponization of this material remains unclear, according to Dr. Hecker. It is clearly true that they have a ballistic missile capability which has been demonstrated, and they have a large forward deployed military, probably not as well

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fed or well trained or well equipped as they would like. But, in short, you have a large and dangerous country on the verge of a significant nuclear weapon arsenal.

They do have a failed system. Their economy is in tatters. Their political system has no legitimacy, does not satisfy or begin to satisfy the hopes or aspirations of their people. Their alliances are in tatters. The close relationship that they had in past regimes with both China and Russia, which still persist in some way, are not at all the kind of guarantor of their ultimate security as they once had.

What do the North Koreans want? We don't know. It's hard to say. It's not clear how many North Koreans know, or which of those that know count. What we do know—and what Bob always told us to do when we were working this problem last time is we don't know what they want but we do know what they have and what they can do. And therefore, it seems that the proper policy perspective would be one that monitored their capabilities rather than relied exclusively upon an interpretation of their intentions to guide our policy.

We do know that if they stick to their current glide path they're going to either end up with more nuclear weapons or more bargaining leverage, or both, because as time moves on, that's what's happening. They're getting more capable, and the more capable they become, the more they will seek to exact, by way of concessions, to give up what they've got. That's just logic.

The only way for us to truly find out what they are about is to force them to choose. We do know that they cherish their regime. We do know that they want regime survival. If we really want to test the proposition whether North Korea will or will not accept serious constraints upon its nuclear weapons capabilities, we need to force a choice between security of their regime and security of their weapons program. This we have not done.

Our objectives—and when I say “our objectives” I think it's fair to say those involved in the six-party talks all around—are clear. We want to see an elimination of the North Korean nuclear weapons program. From a U.S. perspective, there are certain parameters that have been levied on how that is achieved. One, there should be no blackmail; two, the process must be multilateral; and three, it must be irreversible.

Now, at a very broad level, two of these parameters I think are quite unexceptionable. I don't think we'd find anyone in this audience or elsewhere who would advocate subjecting themselves to blackmail or arguing for a unilateral solution, but I think we need to dig down at least one further level. I think in some measure the parameters as described reflect a misreading of history, which would be corrected if they read our book (laughter) but I think more importantly—and I will return to the question of prescription and get around the blackmail and multilateral issues—but irreversibility I think is a different kettle of fish.

Irreversibility I think is a really a will-o'-the-wisp. On the one hand, it's nice to have. On the other hand, by the time you get it you probably don't need it. When you are talking about proliferation, as Joe and I argued years and years ago, you're really playing for time. And the only way you truly get irreversibility is with profound political change that affects what I would consider the demand side of the proliferation equation. So you have irreversibility, I would submit to you, in Germany, in Japan, in South Africa, in Argentina. And I'll take it. It's the best nonproliferation that you can get. But in these harder cases—North Korea, Iraq, Iran—it's not available really, and in any meaningful way, because any pledge that you get you're going to have to monitor, and the political change that you seek is far too long in coming to help you on your nonproliferation problem.

So if you take that as your status quo and where we are headed, we are left with a pretty clear and well-rehearsed set of options on how to address the problem. One is regime change. This was not one that was seriously considered in the way it's now thought about a decade ago. The problem with a regime change is it's the flip side of the irreversibility issue. It's great. It is the most effective nonproliferation policy you can get. But it's too slow and it's too subject to elements outside of the control of diplomats. And in the case of North Korea, we have had a history of people predicting its imminent demise for years and years and years, many of whom have themselves passed from the world stage, even as the admittedly intolerant and totalitarian North Korean system has survived.

Now, the only think I can think of that is worse than a North Korea with nuclear weapons is a collapsing North Korea with nuclear weapons because under those circumstances you not only have all the dangers you already have with proliferation but the further danger of a country that thinks it's extremis and may be more inclined either to use [nuclear weapons] or to sell them to third parties. So regime change is not a very attractive option.

Secondly, the military option. This was seriously considered a decade ago when we knew where the 8,000 spent fuel rods were and when we believed that a red line against the separation of that plutonium was something the president should clearly consider and that it should be an option available to the president to take military actions in bombing or taking out the Yongbyon facility in order to eliminate the proliferation threat that the plutonium posed. We don't have to talk much about that today because I think the option is gone. It would have been hard enough then to muster international support, beginning with our regional allies in Seoul and

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Tokyo. But now if we don't even know where the spent fuel has been taken and separated into, it's not something we need to detain ourselves further on here.

The third option is containment. Basically, take a page out of the deterrence book and say this is an untrustworthy regime. We can't cut a deal that sticks with them, and therefore we're just going to contain them. And it worked. We'll deter them; we've got a powerful military; we'll make sure they understand that. And that will be our approach. The problem with that is it's too defeatist. The North Koreans have been at least saying over and over to a variety of audiences that their program is negotiable, that they are willing to give it up, and it seems to me under the containment strategy you have to stipulate the presence of the hostile arsenal. There was nothing we could do—nothing we were going to do—to take out the Soviet nuclear arsenal. It was a fact of life. We had to learn to live with it. We had to contain it. We deterred it. And there was mutual deterrence at that time. I'm not willing to let North Korea build up to that point where it's got an indisputable, demonstrated potential. I would like to take the option that may be available today—the North Koreans are saying that they will give up their program—and test that proposition.

And that brings me to the next section: Where are we headed? The six-party talks I think are fine. I think it's important to have all the critical players and they're represented. But I think we have to recognize that six-party talks are sort of like a three-legged race, if you remember from your childhood where you have two people and you put one leg in a burlap sack and so does the other guy and you see how fast you can race other people. Now, imagine a larger burlap sack and you've got six people with one leg in the bag and see how fast you run forward. Most analogies don't work; I'm not sure about this one. (Laughter.)

I would say, however, the pace of the negotiation so far does not demonstrate that I'm wrong, and it seems to me that if you have six-party talks, inevitably you have a factor of dilution of priorities. Inevitably things get stuck. Indeed, we found that over and over again a decade ago and we only finally broke through when we untethered ourselves to some degree from this lockstep approach. Now, there is nothing against six-party talks. It only seems to me that we should look at it not as some kind of talismanic mechanism for a solution, but it's one forum. I think we need all available forums to finally get to a solution.

The second thing that I think we need is a roadmap. Again, it's fairly easy to deduce the end state here because people have been talking about them for years. Indeed, even in the context of the six-party talks you've heard all of them described. From the North Koreans, we were looking for the elimination of and transparency into their program. We need to make sure we pick up the HEU as well as the plutonium. We need to get our arms back around the plutonium that's there. At that level of broad generality, it's reasonably straightforward. That would be what we expect from them.

What they would expect from the international community would be some form of security assurance and other forms of assistance to help them move away from their current glide path to one of integration into the international community, also not too hard to describe. Obviously the devil is in the details. But as important as the details are, some form of sequencing that will enable governments that do not have mutual confidence to take a step-by-step approach and get to that end state.

If we do not devise that kind of mechanism—and I don't think the next round, hopefully which will occur in February, is any too soon—then we're going to end up with the worse situation than I described at the outset: an untethered North Korean nuclear program heading towards larger and larger quantities of nuclear weapons material, no monitors, and all the risks that that entails; both for the Korean Peninsula, for the region, and for the Japanese. It's very easy to spin out a very worrisome set of events cascading through Asia, the Middle East, and beyond.

My net assessment is our current situation *vis-à-vis* North Korea is one in which there is no penalty for defiance, but no reward for compliance. And in all the years I've [dealt with] North Korea I've not seen irrational or self-abnegating behavior as one of its salient features. So their rational response to this situation is one of continued defiance, and in this I would say that time plays to their favor. Now, I don't mean to be too draconian about describing this. I do think we have more time and I think the next round is a critical opportunity, but because of the glide path, if it is not taken, I would urge that we take a somewhat more robust approach.

And here I come to the third section. Prescription: what should we do? I said at the outset that we don't know what North Korea wants. The only answer to that is for us to know what we want and to be insistent upon that. We need to have a policy that is sufficiently robust that it will be effective. I think we need to go at least one step beyond the bromide of we need the verifiable and complete elimination of their program. Fine. That is what we want, but we need to, I think, have a clearer sense of priorities. And to just take one example, I would attach a higher priority to stopping the plutonium than to maintaining multilateral talks at all times at all costs. I would like to find out what's happened to the plutonium in those 8,000 rods.

And the final point I would make about this is I would do this with a keen sense of urgency. I will conclude

with another, I hope, not too dangerous analogy. In March, 1861, Abraham Lincoln confronted a rebellious South. Now, for Jefferson Davis, the president of the Confederate States of America, all he needed was to be left alone. He could carry on his own government, collect taxes, cherish their sacred institutions. Lincoln needed the war. Lincoln needed Fort Sumter—the *casus belli*—because he had to interfere with the confederate plans.

Similarly, we need to interfere with North Korea's plans. It's not enough for us to keep talking. We need to force North Korea to make a choice now between continuing a program that threatens all of our security, in which case they would face harsh measures that would put pressure on the very continuation of their regime, or to take the other path of returning to compliance with global norms and one in which their future could be safe, secure, and perhaps even prosperous.

Thank you.

MR. GALLUCCI: Thanks, Dan.
George?

MR. PERKOVICH: I live in a town where it's referred to still as the War of Northern Aggression, so I'm not sure about the analogy, Dan. I want to thank Daryl Kimball and Spurgeon Keeny, Jack Mendelsohn, who I see here, for making ACA such a formidable organization that on a snowy, yucky, traveling day in Washington that you had a turnout like this. I'd like to congratulate you and thank you for including me.

I'm going to talk about South Asia, meaning India and Pakistan. I'm going to look forward and talk about policy approaches. I'm not going to look back. And I'll probably be a little unorthodox, but it's just because I think the situation there is not going to be addressed through the orthodox ways that we think about arms control and nonproliferation.

Let me start by saying that the operational objective in dealing with India and Pakistan today—and I would argue in other nonproliferation cases, too—is to prevent the use of nuclear weapons. That's the bottom line, and from the standpoint of potential nuclear weapons use in South Asia, there are two threats that stand out right now. The first and more important is the potential military conflict between India and Pakistan that could escalate to the use of nuclear weapons, and that escalation, indeed the conflict itself, could come from inadvertence or it could be purposeful. But it's escalation that is the primary risk.

The second risk, I would argue, and it's a formidable one, has to do with Pakistan's stewardship over nuclear weapons, nuclear materials, and the know-how that its scientists and engineers possess, and how that ties to the problem of use is in part whether that know-how and those materials could pass into the house of less deterrable actors. And those actors could be a successor government in Pakistan, they could be terrorists, or other states.

In terms of policy prescription, the most likely cause of deterrence failure would be an effort by one of the two antagonists to try to change the territorial status quo of the other. In this case we're talking about Pakistan as the most likely instance or location where that effort to change sovereignty or territorial status quo would occur. And here there is some cause of optimism, or at least we can specify what we think the problem is; namely, India appears to recognize that it cannot change the territory that Pakistan controls. In other words, India has given up on the idea of changing the current territorial status quo in Kashmir or in the region *vis-à-vis* Pakistan more broadly. So the primary challenge then is to persuade Pakistan to accept the territorial status quo or at least to accept that the territorial status quo cannot be changed by force and cannot be changed by Pakistan.

So if they both recognize that whatever they now have in Kashmir can't be changed by the other physically, you've done a lot to reduce the risk of nuclear war. Now you're into a negotiating venue where you're trying to figure out the terms to formalize that—to adjust the boundary.

And that's where a lot of people hope we are. As a result of the diplomacy last month, they're going to have talks in February to begin this process. One doesn't want to be overly optimistic. There are many things that can go wrong, but in part what you can argue is going on here is in fact this recognition by both sides that the territorial status quo is going to have to be accepted. Let's negotiate the terms and move on.

In terms of U.S. policy and what we can do, I think the U.S. should stay very closely involved and should be thinking about structuring rewards and incentives if they go forward, but these latest developments happened largely without the U.S. That's a very good thing. I think it would be a mistake to exaggerate the importance of the role the U.S. should play here, at least in the present.

The second big objective has to be to help prevent nuclear terrorism. And here we need to do, as perhaps we are doing, focus not just on Pakistan, but on India as well and ensuring that they both have state-of-the-art policies for securing their nuclear weapons, their nuclear facilities, their nuclear materials, and their scientists. And we're talking about whether it's an informal or bilateral, but better if it's a universal code of conduct regarding stewardship of nuclear assets.

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This becomes an acute problem given the news out of Pakistan in the last few weeks, and so I should comment a little bit more directly there. The reports that Pakistani engineers and scientists have been involved in commerce and the spread of their know-how and equipment to Libya, Iran, North Korea, and probably elsewhere—IAEA Director General Mohamed ElBaradei described it as a Wal-Mart of proliferation. Obviously it's a serious problem, and I think it poses policy issues to the U.S. and others. And the first order policy objective, it seems to me, should be to gather intelligence. In other words, there's a tension: do you focus on crime and punishment—catch the bad guys, make an example of them? Or do you focus on finding out where all of the threads of this network extend to and modeling it and getting a full idea of who is involved?

The tendency, I believe, in Pakistan is going to be to advocate the crime and punishment approach and you can see this so far, so that the military which runs Pakistan says, yes, it was these bad scientists and engineers. We're shocked. Shocked! And now we've brought them in for questioning and we will punish them—or not. But in any case, that's the focus. I think rather the focus should be on making sure that the government of Pakistan, including the military, exerts every bit of its leverage to get the full story.

Now the problem in that is going to be so far the full story seems to focus on scientists and engineers. The problem is that there must have been, I would argue, military officers and the intelligence community, which again is part of the army in Pakistan. They had to have been involved in this network. The problem there is the country is run by the military. They're very unlikely to turn on their own, especially if you've got people who are of relatively similar rank who may have been classmates of yours. This is a structural problem that I think we should be mindful of, but shouldn't allow to prevent this kind of further intelligence acquisition that we need. And this is a very difficult issue, but the key should be finding out whose cousins, whose uncles were part of the Malaysian plant that evidently is producing a centrifuge? Where the ties go into Dubai. Who all was involved in this? Because if we're trying to prevent further proliferation, we need to know the nature of this enterprise.

More broadly, then, if you can correct what's going on in Pakistan, you want to help them make sure this doesn't happen again. That may require cooperation in facility safeguard and security: cameras, vaults, best practices, lots of different things that experts can cooperate on and work on. And here, there's an argument that this bumps up against nonproliferation norms and rules about not cooperating with states who aren't full parties to the NPT and don't have full scope safeguards. And you also bump up against U.S. national legislation in many cases. Without going into the details of it here, I would argue that at this point preventing nuclear terrorism, establishing a common state-of-the-art practice and requirement for all states who have nuclear weapons and nuclear material is more important than punishing a country like Pakistan or India for having never signed the NPT. We ought to at the highest level of government—take it out of the middle level—conduct a lawyerly investigation and look at this as an international problem that requires high-level leadership to say, all right, how do we establish the state-of-the-art? What reforms have to be made in the supplier cartels and our own legislation? And let's get on with doing that.

The third set of policies that I would suggest, or elements of a strategy, are more traditional to the nonproliferation community, and Bob Einhorn is doing work on nuclear risk reduction centers in Pakistan and India and working with counterparts in both countries. This makes eminent sense. It ought to be pursued. People in India and Pakistan understand what Bob's talking about. There's a basis for doing this; it's a question of political will. We can hope that through the diplomacy now that political will will be generated. Obviously, it would be desirable to reaffirm their test moratoria in both countries.

The more difficult and important issue, I would argue, has to do with fissile material production, and here there's a tension. The conventional thing to say would be that we should negotiate the fissile material cutoff treaty—we should revive that enterprise. I think there are lots of questions about that because we're now in a situation where I would argue, reasonably, we don't feel comfortable with fissile material facilities period. In other words, it's not so much an issue of trying to make sure everybody that's producing fissile materials is doing it under safeguards. We're saying to Iran and I think we should say it to other places, no, no. We don't want you engaged in this activity, period, whether it's safeguarded or not.

That calls into question, then, the value of emphasizing the fissile material cutoff treaty because its premise may not be sufficient to solving the problem we're trying to address. I would look more toward exploring moving toward a new system—maybe it would take 10 years—where you phase out operation of fissile material production facilities, or transit them to international operation and control. So approach the problem of capping weapons potential through a different modality than a cutoff treaty, which even if you got, wouldn't solve our problem.

Probably the most important way, in my view, to deal with the risk of nuclear use in South Asia is the fourth point, which is that we've got to deal with the governance of Pakistan. As long as the army is the dominant institution in Pakistan—in the economy, in politics, in security, in foreign policy—we've got structural problems. I already talked about the difficulty of getting them to unravel this proliferation network in which their members may be implicated.

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You also have an army whose whole *raison d'être*—it's whole spiritual motivation—has been to contest India over Kashmir and to contest India more broadly. So again, if you have to settle that conflict, the people who are involved in setting the policy of settling it are the ones whose whole life has been spent fighting the battle. You have an institution that's consumed for its entire history a disproportionate amount of the resources of the country in terms of budget and other resources. They're used to that. If you resolve the conflicts that we're talking about, their claim on the national treasury would be greatly diminished, and you're asking them to kind of voluntarily lead a process that would lead to cuts in their own budget—not so likely. There are other structural problems that suggest that as long as the army is dominant, it will be difficult to redress these issues that we want to.

This is not an easy problem to address, but it's one that the U.S. and the rest of the international community have avoided historically. And there are lots of reasons why you avoid it. We're driving the Soviets out of Afghanistan, so you work with these guys. Now we're hunting al Qaeda and Musharraf's in charge of the army and he can maybe deliver more help in hunting al Qaeda. These are very good reasons, but as long as you don't deal with the fundamental challenge of helping to strengthen civil institutions and civil leadership so that it becomes plausible at some point that you could hand off power to civilians, which is not plausible right now, we're going to have this structural problem. To me that is fundamental to addressing these issues.

And, indeed, my fifth and last point is that if even I'm half right about these priorities that I've talked about, what you notice is that the formal nonproliferation regime and the NPT have very little to do with solving the problem that we face in South Asia. Preventing nuclear use in South Asia is primarily a problem of regional conflict resolution and domestic political reform. It isn't constructive or informative to really think about this anymore as a nonproliferation problem. To think about South Asia primarily in terms of nonproliferation and the nonproliferation regime kind of focuses you on the wrong set of instruments to actually deal with the real problem there. And so part of what we need to do is put more onus on the highest level political leadership in this and other countries to deal with questions of conflict resolution and domestic reform in Pakistan and how you facilitate that, and put a lot less focus on what people in the nonproliferation bureau are doing to solve the India and Pakistan problem.

I'll stop there. Thanks.

MR. GALLUCCI: Thanks, George. I want to invite people to come to the microphones.

Q: Thank you very much, Dean Gallucci. I'm Joe Cirincione with the Carnegie Endowment. I thank you. Also, I don't have a question; I have a short comment. Bob Einhorn, as usual, I learned a great deal from your presentation and I appreciate your insights and comments, and I really just have to take issue with one small comment you made right at the beginning. It was really kind of a throw away line. You just said that all the intelligence experts were convinced that Iraq possessed chemical and biological weapons and had reconstituted its nuclear program.

I don't believe that's true. It certainly isn't true inside the United States. Not all the intelligence experts believed that Iraq, for example, had reconstituted its nuclear program. There was strong dissent in the intelligence agency over that. One entire agency, the State Department, explicitly rebutted that in the national intelligence estimate. Found no evidence that they had reconstituted. It certainly wasn't true internationally. The agency with the most authority in this, the IAEA, went to all the sites in Iraq, found no evidence that Iraq had reconstituted, told the world this before the war. These were knowable pieces of information. Not all experts thought that. The Arms Control Association, for example, didn't think that Iraq had reconstituted its nuclear program. Many people had concerns, but there was grave doubt about this.

I'm sorry to just pick on that one point, but I think it's now become an important point in the debate as many administration officials get caught in their misstatements about Iraq are falling back on this 10-year old's excuse: Ma, everybody was saying it.

MR. EINHORN: No, I didn't say experts. And I agree with you, there's was a lot of dissent in various intelligence communities. What I said was it was the prevailing view of the U.S. intelligence community and other intelligence communities around the world. It happened to have been wrong, but that was –

MR. GALLUCCI: Excuse me, Bob, could you – I've got a problem here. What's the "it" in this thing? What is it that you think the "it" is in terms reconstituted? I mean, are you saying that it was the prevailing view in the American intelligence community that the nuclear program of Iraq was reconstituted?

MR. EINHORN: Was that Iraq was actively engaged in reconstituting its nuclear program.

MR. GALLUCCI: This is tricky. (Laughter.) That's something of an understatement. I was reading the

estimates at that time, and my appreciation was that this was a desire of the Iraqis, but I don't think the intelligence community had evidence of reconstitution; in other words, of facilities, of material, of groups, but it was almost a deduction that this was something that Iraq would like to do if it could, and this was in sharp contrast with the chem-bio, in which they really thought they did have evidence. That's how I read it at the time; not that the intelligence community—either in the unclassified or classified version—thought that there was real reconstitution going on, but that that was an objective of them.

MR. EINHORN: They had evidence—pieces of information that were pointed to. Some of them turned out to be quite flawed as valid indications of reconstitution, but it wasn't, you know, just simply a question of intention. Greg Thielmann can point this out. They did point to pieces of intelligence which to them were interpreted as reconstitution activities.

Greg wants a quick intervention. (Laughter.)

MR. GALLUCCI: Please.

Q: [Greg Thielmann, former state department intelligence officer] I'm just going to state what's in the declassified national intelligence estimate of October 2002. The intelligence community did say that Iraq was reconstituting its nuclear weapons program. The Bureau of Intelligence Research at the State Department said there is no evidence of that and dissented formally and in a very deliberate and high-level way from that judgment, but it is true that the intelligence community put its majority position in favor of the interpretation that reconstitution had occurred. It was based on three things: the [alleged attempts by Iraq to procure] uranium from Niger, the aluminum tubes, and the nuclear mafia getting awarded by Saddam Hussein in Baghdad on public television.

Q: [Mr. Cirincione] I think we've kicked this horse enough. Maybe we should move on to another issue. I didn't mean to start something here.

MR. GALLUCCI: That would be the high road. (Laughter.) Please.

Q: Bill Jones from *Executive Intelligence Review*. This is regarding Dan Poneman's statements about North Korea. The usual stuff about the North Korean economy collapsing, and obviously it is and everybody knows it. However, statements made by Ambassador [Charles] Pritchard and by [Stanford University professor emeritus] John Lewis in his discussion on *Washington Post.com* yesterday had the surprising information that one should not think that the economy is going to collapse, making the same point, of course, that you made, but pointing to the fact that certain things are going on in Pyongyang in the direction of some kind of economic reform where things seem to be getting better.

And I was just wondering if you have any clarification on that because it's an important indication that if indeed it is the case, that the North Korean leadership is moving, at least to some extent, in the direction of these economic reforms, I think this would be an important signal in showing that they see another trajectory rather than that of confrontation, which may give us certain possibilities of resolving this through economic aid and economic cooperation along these levels.

MR. PONEMAN: Thank you. It's a good question and it's not a new subject. When, in the early 1990s, Kim Il Sung was approaching his final years, there was a debate as we interpreted it within Pyongyang over the possibility of economic reforms and there have been periodic openings of free trade zones. But I guess—and I'm not familiar with the direct report from the recent mission by Lewis and Pritchard—it's consistent with that.

I'd make two points. Number one, it has been more of a Gorbachev-like approach at best of trying to restructure things at the margins that really can't be fixed at the margins, and therefore even if they are sincere, I think they tend to be somewhat limited in their net effect in terms of genuine reform. Secondly, and a related point, I think that there has been—as much as I try to avoid trying to psyche out what the North Koreans think about anything—genuine ambivalence when it comes to measures that would actually open their economy in a direction that would bring market reforms and things that might put them on that different trajectory. I think that there are some in that system who view that as a Trojan horse and who are still haunted by the vision of [Romanian Dictator Nicolae] Ceausescu and what happened there. I agree that there are promising trends that should be encouraged, but I don't put too much weight on any particular trip report as showing a secular change of direction.

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Q: Dorle Hellmuth with the Catholic University of America. I have a question for the whole panel. I was wondering if you could comment on the recent decision by the Bush administration to research new low-yield nuclear weapons and its implications for these regional nonproliferation initiatives. Also, what are the chances that these new systems—new mini-nukes—are actually going to be developed and deployed?

MR. EINHORN: I don't think these programs are going to have a big impact on the world of proliferation, frankly. CSIS [Center for Strategic and International Studies], the think tank I work in, recently did a study of eight different cases, eight countries that long ago renounced nuclear weapons, and under what circumstances might they reconsider in the future. And we're going to publish it in a few months, and our finding was that none of these countries are really focused on this issue of how many nuclear weapons the United States has, whether they're old designs or new designs, and so forth. And to the extent that U.S. capabilities are relevant to their situations, it's not a question of the specific quality or number of U.S. forces.

Much more relevant to their immediate concerns is U.S. conventional capability and whether those capabilities will be brought to bear for them or against them. But I don't think the impact on proliferation is very great.

But if you ask whether it's sensible for the U.S. to pursue these options, I don't think it's very sensible. I mean we're the country with the most sophisticated conventional capabilities in the world, unambiguous superiority in that realm. It's not clear to me whether it makes sense to pursue improvement in our nuclear capabilities that would provide marginal benefits at best.

MR. PERKOVICH: That was a great answer. Especially if your definition of the proliferation problem is in terms of military security and if states made their decisions about both seeking nuclear weapons, but also giving them up and complying with nonproliferation regimes—if they made their decisions based purely on the level of military threat they face. I agree with Bob in the sense that the new threat potential that would give to the U.S. to apply to very different states. I don't think it would affect them very much. But the nonproliferation problem is much larger than that so if the U.S. were to move forward and develop this new generation of nuclear weapons, it would have a profoundly destructive effect on our efforts to achieve nonproliferation.

Let me just say briefly why. Leaving aside whether these new weapons are necessary or you could ever get sufficiently accurate intelligence to be able to target them in a way where the president would or should say, "Yes, let's go ahead and use nuclear weapons for the first time in 50 odd years. I have absolute confidence that the target is in that bunker you just told me it was in." Given our experience with Sudan and the chemical weapons, given our experience in Iraq and so on there's a practical issue.

Developing a new generation of nuclear weapons is a clear and obvious form of noncompliance with the nonproliferation regime. We have established a norm and it's enshrined. It happens to be enshrined in a treaty beyond being a norm, which is a cessation of a nuclear arms race. Most of the world will define a new generation of nuclear weapons as a form of continuing the arms race. There's a violation either of a treaty or of the norm. You're also trying to, for very good reasons, devalue the role of nuclear weapons in national security policies to lower the currency and attractiveness of these things, partly because we don't want to get targeted by them.

So now you would be developing a generation whose advertised value is that in fact you can use the thing. So there again it's noncompliance with a norm and also something that was agreed in 2000 at the NPT review conference. You could go on, but I can't think of anything that would be more grossly noncompliant with the regime that we've tried to create than moving in this direction. That's not a security argument, it's about legitimacy and it's about building political coalitions to support enforcement of nonproliferation, which is what we're trying to do.

Q: Thank you. I am from the mission of Indonesia to the United Nations in New York.

I have a question to Robert Einhorn and maybe Dr. Perkovich. We have been discussing the issue of noncompliance under the NPT regimes, but the other core issue of the NPT is regarding universality. Do you foresee that in the near future, let's say before the review conference in 2005, Israel, India, and Pakistan could become states-parties of the NPT? If the answer is no, how do you think the NPT regime should deal with these three outsider countries?

MR. EINHORN: The answer is no. I think it's clear that the answer is no. None of those three is going to join the NPT in the foreseeable future. Probably never, although I think the Israel case is different. It's conceivable that in this context of a comprehensive peace that Israel might reconsider its options, but what does the nonproliferation regime do in the meantime? I think it encourages all three countries to be responsible members of a broader

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nonproliferation regime if not the NPT itself, and to take a variety of steps—George has identified a number of steps that India and Pakistan could take—in terms of strategic restraint and securing their nuclear materials and keeping track of irresponsible scientists and so forth.

Israel, too, could play a role in terms of its own export control policies, not being provocative by declaring its nuclear capability, perhaps at some point shutting down the Dimona reactor, and so forth. There are things it can do to bolster the regime, but one of them, unfortunately, is not joining the treaty.

MR. PERKOVICH: I'll be brief. I think one of the most powerful critiques that opponents of arms control, neo-cons, or whatever you want to call them in the administration, is exactly on the focus that we tend to put on having people sign treaties. In other words, universality of signature of the NPT is desirable clearly. I agree with Bob; it's not going to happen. But the point should be universal compliance. The focus at this point in time should be on compliance, and it can be compliance with the treaty. That would be most desirable. There are these other norms and terms and codes of conduct that we clearly can identify as vital to protecting all of us against proliferation and we ought to be pressing for universal compliance, which is a lot more important than cynical signatures on treaties. And then you have a bunch of noncompliant actors and nobody's willing to enforce it. So I would focus on compliance.

Q: I'm Phil Coyle with the Center for Defense Information. I have a question for Mr. Poneman in relation to his recommendation that we need to do something analogous to Abraham Lincoln in the South to force North Korea to rethink its nuclear ambitions.

Last year, Secretary of Defense Donald Rumsfeld, when asked why the administration's policy of regime change wouldn't be carried out with North Korea the way it had been with Iraq, said it was because North Korea already had nuclear weapons and Iraq didn't. And this seemed to me to suggest to countries that didn't have nuclear weapons that they better get them while they still can, and if they have them to keep them. So considering what the secretary said, how would you force the change that you recommend?

MR. PONEMAN: We might just note here that what we know and what we say we know and what we think we know about North Korea is a very tricky proposition, so I guess I would say the following. Number one, I would not stipulate that they possess nuclear weapons. I don't know that to be a fact. Number two, since we can define the end state, we should define that end state beginning with what we do know about the 8,000 rods that were quite recently monitored. We should then come up with a position and coordinate it first with our trilateral regional allies and then the Chinese and the Russians. Then go in with a unified position in the next round that says to a first order we need to put a lid on that plutonium out of the 8,000 rods. Find it, account for it, safeguard it.

We need to do that now. And if you do that now, we will do this now. And we should play around with what this is. So rather than holding the whole problem hostage to a universal, lasting, and irreversible solution, I would be willing to break it into that which is truly, intrinsically urgent and settle that piece as a first step to a broader solution.

And I have to make one other comment to sort of head off the blackmail concern. If you are a debtor and you owe a bank money and you default on the debt, the bank generally does not just forgive the debt. Often what happens is you'll roll the debt into a larger obligation. I think we should think in those kinds of terms. Even to get this kind of freeze that I'm talking about I would want to get a greater level of intrusiveness. I'd want to at least take a run at getting the material out of the country, so I would try to frame our position going into the six-party talks as one that expands the North Korean obligations beyond even what they had accepted on paper in the Agreed Framework, and in exchange for that I'd be willing to do perhaps a bit more than we did under the Agreed Framework.

Q: Adam Miles with the Friends Committee on National Legislation. More on North Korea and the path of the negotiations. Members of the Senate Foreign Relations Committee are looking to raise awareness of the ongoing human rights violations in the North, and legislation has been introduced that looks to address this question by bringing about democratic government in the North, which is an implicit call for regime change. Senator Brownback actually showed up at Dr. Hecker's testimony last week and pleaded with the committee to not move forward with negotiations unless this human rights situation was coupled with negotiations.

Is this potentially destructive to the negotiations about the nuclear weapons? Is it going to take hold in Congress, this coupling of the issues? And will it have any resonance with the administration? And especially, will this be a part of the six-party talks, if they have them, in February?

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MR. PONEMAN: Okay, well, the last two parts I can't handle because I'm not working on developing the position for the six-party talks, and maybe some who are want to comment. Nor can I comment on behalf of the administration.

On the first part of your comment, my view would be to the extent that there is success in tying the North Korean human rights problem to the North Korean nuclear proliferation problem, it's bad, and it's going to make the nuclear problem that much harder to solve. It will encumber it with baggage, a) that it cannot sustain and b) that is, in terms of threatening our very existence on this planet, far less consequential. Part of the problem that we have is in segregating the important from the important that is critically urgent. And in my view, while I deplore the terrible human rights conditions in North Korea and would like to see it change, I think we need to address the nuclear on a separate, faster track.

Q: Larry Weiler. I'm an ancient mariner in this field. (Laughter.) Two questions. First is, one of the problems with proliferation has always been that proliferation begets proliferation, and that's been what we've seen by and large. But the question would be that if you could solve the North Korean question and the Iranian question and hopefully begin to work something on Israel in connection with overall settlement, are we likely to be in a situation where we have some sort of natural dams now against further proliferation other than the leakage problem? Would that be a unique situation or are there other areas that we might see real pressures on?

The second has to do with our nuclear weapons use policy. This has been touched on briefly in talking about new weapons development, but I'm struck by the fact that there is very little discussion outside of government of the weapons policy of the United States and its effect on proliferation, on the legitimacy of our efforts. I mean, we're basically in a situation where we're saying, we have a right to have nuclear weapons; no one else other than the people who have already got them have a right, and we don't give up the right to hit you with them.

That's a crude way of putting it, but my question is, what do you feel would be the likely benefits of [adopting] a no-first-use policy?

MR. EINHORN: I'd like to address the first part of Larry's question. In this study that I referred to a few moments ago, we looked at what are possible drivers, why might countries reconsider, and so forth, and the single factor that was most important was whether Iran and North Korea could be stopped. That was the single most important thing. If Iran could be stopped and North Korea could be rolled back—which unfortunately is required today I think—then that would take away much of the incentive that exists in Northeast Asia and in the Middle East to go forward. Now, there are other factors, domestic and other drivers, but that was the single most important thing.

I think if North Korea and Iran could be stopped, we can imagine building the dam; calling a halt to proliferation altogether and conceivably rolling it back a little bit. So I think those are the most important things and we should really be concentrating on that.

And I agree with Dan that if the policy is simply to pressure and contain and hope for the collapse of North Korea, what's going to happen is I think we're going to see the gradual accumulation of a fairly sizable stockpile of nuclear weapons by North Korea, and that's going to make it impossible to put those brakes in place.

MR. PERKOVICH: I agree entirely with Bob about the seminal importance of Iran and North Korea, and if you can get those right I think you can manage kind of containing the proliferation problem there.

We don't have time to get into the question of nuclear weapons use policy, but I do think it actually is much more important than we have attended to. There are a variety of reasons for it, but the shorthand that I would apply to it is that there is a question of legitimacy. Theory and history would say if you've got a dominant power in the world that's a hegemon trying to make rules and impose them on everybody. If it doesn't do it in certain ways you're going to cause defection and counterbalancing power.

I think the way that we kind of wield nuclear weapons and talk about it in our doctrine—if people just generally don't look at that and say, that seems right and basically fair and legitimate, we will pay a price ultimately in people's willingness to cooperate with us when we go out to whack the bad guys; when we go out to enforce things that really matter to us.

So it is a little ethereal, but it is real. And it requires more than that but that would be my first answer.

Q: Chris Turner, Georgetown University. This is a question for the entire panel. You have enlightened us all

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on the spread of fissile materials and their production, but we haven't heard as much about delivery vehicles. I'm interested to see what your perspective is on the role of cruise missiles and ballistic missiles in future arms control regimes.

MR. GALLUCCI: Okay, I'm going to take all three of these questions and then we'll come back and have the panel respond.

Q: Benjamin Hu, reporter with *The Washington Times* newspaper. Further to that gentleman's question, an item appeared on our wires this morning saying that North Korea negotiated a deal with Nigeria for the transfer of ballistic missiles. So I wanted to know what U.S. policy is or should be on that transfer. Thank you.

MR. GALLUCCI: They're going to Nigeria, right?

Q: That's correct.

Q: My name is Courtney Raj. I'm a student here. I intern at Carnegie for Joseph Cirincione. I write for the *Daily Star* in Beirut. And my question is for Bob Einhorn.

You mentioned something that sounded like you were proposing a sort of Nunn-Lugar program for Iraq, and if you could maybe expand on that, if that's what you were talking about.

MR. GALLUCCI: Okay, spread of fissile material, North Korea, Nigeria, and Nunn-Lugar for Iraq, starting with fissile material.

Want to take a shot at that?

MR. PERKOVICH: I'm going to try to say nothing because I interpret his question to say let's talk about missiles instead of fissile materials.

MR. GALLUCCI: Right, you did. You did.

MR. PERKOVICH: So I'm done.

MR. GALLUCCI: I should note here that we have a presentation in the afternoon on ballistic missile proliferation. But does anybody want to say anything about that at this point? You're not required to.

MR. PERKOVICH: Well, actually I would just put a plug in for the Proliferation Security Initiative and the idea of building coalitions to interdict these kinds of transfers.

MR. GALLUCCI: This is PSI.

MR. PERKOVICH: PSI. I think it's a great idea.

MR. PONEMAN: This is an easy one on North Korea.

MR. GALLUCCI: North Korea. Nigeria

MR. PONEMAN: We should stop it.

MR. GALLUCCI: We should stop it. (Laughter.)

MR. PONEMAN: It ties into the PSI.

MR. GALLUCCI: With the use of force?

MR. PONEMAN: Yeah.

MR. GALLUCCI: That was a yes?

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MR. PONEMAN: This is exactly the kind of thing we need to get a grip on. I always thought that the ballistic missile threat from North Korea was genuine. I didn't think it was as urgent, and we believed it was not one that should prevent us from solving the nuclear problem first.

That having been said, we were very clear at the time on the serious consequences of ballistic missile proliferation from North Korea. I think we should be equally serious with them about it now. It's harder because we have this other very large agenda that's in front of it, and Bob Einhorn could speak authoritatively to how close we came to a more effective and perhaps verifiable kind of missile proliferation resolution with North Korea.

MR. GALLUCCI: Did we not have the Spanish interdict a shipment of North Korean SCUD-like missiles?

MR. PONEMAN: Right.

MR. GALLUCCI: And we let them go. So do you have a cut off here? If it's extended range MRBM [medium-range ballistic missiles] we stop them with force, otherwise we let them go, or...

MR. PONEMAN: No. I would use the MTCR [Missile Technology Control Regime] parameters as a critical parameter. I would try to get the kind of international cooperation that the PSI is proposing. If I could get that kind of support and if I could interdict the ship, I would.

MR. GALLUCCI: All right. And last and not least, we have the Nunn-Lugar question and whether that is what you had in mind for Iraq. That is actually how I heard you.

MR. EINHORN: Actually it's a program that's underway. The State Department is putting in place a program in Iraq. It's analogous to the International Science and Technology Center in Moscow and the one in Kiev. It's designed to find out who these scientists are and put them to gainful employment in civilian projects and try to make sure they're not peddling their expertise elsewhere.

Let me, if I can come back on the missile question. There's no way you're going to get a universal agreement to ban all missiles above a certain range. That's not going to happen. You're also not going to be able to get a kind of missile NPT where some countries can keep long-range missiles and others have to give them up. That's not going to happen either. You have to go at the missile problem in different ways. Part of it the U.S. does through dealing with each country in turn. We negotiated an arrangement with South Korea on the range of its missiles. We tried to negotiate an agreement with North Korea. We came pretty far, but we had other issues to work on.

This arrangement in Libya is going to bring down their missile capability to below the so-called MTCR threshold, so ad hoc, country-by-country, is one element of it. Regionally is another. Various regions have considered constraints on missiles. You're not going to have a universal agreement on missiles.

MR. GALLUCCI: Let me thank the panel and thank you, audience.

PANEL BIOGRAPHIES

CHAIR • Robert Gallucci

Ambassador Robert Gallucci is Dean of Georgetown University's Edmund A. Walsh School of Foreign Service. An ACA Board Member, Ambassador Gallucci worked extensively on national security issues over a 21-year career in the U.S. government, which began at the Arms Control and Disarmament Agency. In addition to serving as the Assistant Secretary of State for Political-Military Affairs and heading the State Department's Bureau of Intelligence and Research, Ambassador Gallucci also helped oversee the disarmament of Iraq after the 1991 Persian Gulf War as the Deputy Executive Chairman of the UN Special Commission. He subsequently helped negotiate the 1994 Agreed Framework to freeze North Korea's nuclear weapons program. From 1998-2001, Ambassador Gallucci held the position of Special Envoy to deal with the threat posed by the proliferation of ballistic missiles and weapons of mass destruction.

THE MIDDLE EAST • Robert Einhorn

After working nearly three decades for the U.S. government, Robert J. Einhorn is currently a Senior Adviser at the Center for Strategic and International Studies. In his last position in government as Assistant Secretary of State for Nonproliferation, Mr. Einhorn oversaw U.S. participation in multilateral nonproliferation regimes and was responsible for helping control the spread of nuclear, chemical, biological, and advanced conventional weapons. Earlier in his career, Mr. Einhorn represented the Arms Control and Disarmament Agency at the Strategic Arms Reduction Treaty Talks with the Soviet Union. In Aug. 2001, Secretary of State Colin Powell awarded Mr. Einhorn the Secretary of State's Distinguished Service Award.

NORTH KOREA • Daniel Poneman

A former senior National Security Council (NSC) staff director, Daniel Poneman is now a principal at The Scowcroft Group. Mr. Poneman first joined the NSC in 1990 as Director of Defense Policy and Arms Control and was then promoted to Special Assistant to the President and Senior Director for Nonproliferation and Export Controls from 1993 through 1996. Mr. Poneman worked at the Department of Energy before joining the NSC and is the author or co-author of several books, including the forthcoming *Going Critical: The First North Korean Nuclear Crisis* with Ambassador Robert Gallucci and Joel Wit.

SOUTH ASIA • George Perkovich

Dr. George Perkovich is the Vice President for Studies at the Carnegie Endowment for International Peace. He previously served at the W. Alton Jones Foundation as Deputy Director for Programs and Director of the Secure World Program, where he oversaw grants to arms control organizations. Dr. Perkovich, who also worked as a speechwriter and foreign policy adviser to Senator Joseph Biden, has published extensively on security-related issues, including *India's Nuclear Bomb*, which won the Herbert Feis Award from the American Historical Association and the A.K. Coomaraswamy Prize from the Association for Asian Studies.

KEYNOTE SPEAKER

Senator Joseph Biden

JOHN ISAACS [President of the Council for a Livable World and ACA Board Member]: Today I'm fortunate to introduce to you someone who is a U.S. senator but is not running for president of the United States. (Laughter.) Fortunately, because today he'd be running off to Missouri or Arizona, or South Carolina, or perhaps even Delaware—there are some activities going on the next week there. And fortunate, also, because no matter who is elected president in November—and this university and this organization are non-partisan, and I'm sure you have no views on who should be president—Senator Joseph Biden will be in a key position in the U.S. Senate to provide critical leadership on arms control, nonproliferation, and other national security issues being discussed today, and of course, issues so dear to the heart of Paul Warnke.

One thing we can all be sure of is that no matter who is president in 2005, Senator Biden will not be bashful about putting forward his views on national security issues, and indeed, he should not be bashful. This country needs advocates like Senator Joseph Biden pushing, prodding, educating, and even lobbying the president and his national security team.

Now not many of you will remember, but Senator Biden has been in Washington for quite a while. He was elected at the very young age of 29 to the U.S. Senate from the New Castle County Council, Delaware. That's an early start. He has risen in the last 30 years to be both the top Democrat on the Senate Foreign Relations Committee as well as on the Judiciary Subcommittee on Crime, which mean Senator Biden is a key player in Washington, not just on national security issues, but many issues facing the Judiciary Committee, including Supreme Court nominations, constitutional law, and many other subjects.

Senator Biden has been centrally involved in so many of the issues that the people in this room have been working on over the last years—the SALT treaties, START, the Chemical Weapons Convention, the Comprehensive Test Ban Treaty—and he has been a very effective advocate on all these issues.

I will end this introduction where I began. We are very fortunate to have Senator Biden here today and to have him here in Washington in January to continue working effectively on all our issues. Thank you.

(Applause.)

SENATOR JOSEPH BIDEN (D-DE): Thank you all very much. I'm honored to be here.

By the way, the way you rise in Washington is survive. It has nothing to do with merit, as I'm sure you all know. And secondly, with regard to the candidates, both parties running for president of the United States, I'm authorized to speak for all of them, so if you have any questions... (laughter).

When I got to the United States Senate, if you wished to play a role in American foreign policy, there was only one avenue. You had to master arms control issues. Whether you were for or against—I've been for—you had to master it. There was no other way for a young senator to even get in the game.

I want to thank John again for the introduction. I would not be a United States senator were it not for John and an outfit called the Council for a Livable World. There was a guy named Al Gore, Sr., and his wife, who back in those days helped start this organization. I was a 28-year-old kid, announced for the United States Senate, met with former Senator and Mrs. Gore, and of the \$287,000 I raised in my campaign, the Council for a Livable World, by individual checks, raised \$89,000 of those dollars, which I was very proud to accept then and [now] one of the "interest groups" that I've been most proud to be associated with. I apologize for ruining your reputation. (Laughter.)

And I also want to thank Daryl Kimball and the Arms Control Association for allowing

me to address all of you today and for being such effective advocates for sensible policies to stem the proliferation of weapons of mass destruction, and most importantly, reduce the risk of nuclear war.

We are gathered today at the Paul C. Warnke Conference on the Past, Present, and Future of Arms Control. One thing I'd say at the outset is the past was more promising than the present, and the future, hopefully, will be more like the past when it comes to arms control. (Laughter.)

Paul may be known best for his image of the arms race as two apes "jogging in tandem on a treadmill to nowhere." But he also got the nub of the arms control debate in 1986 when he wrote, "Until we recognize that no one can win a nuclear war, that no one can fight one rationally and successfully, we aren't going to be able to take steps that are necessary to bring about strategic arms control." It was as true today as it was when he wrote that paragraph in 1986.

Controlling the arms race between the United States and the U.S.S.R. was the issue that galvanized us during the Cold War. Today, though the Cold War is over, the issue of controlling the threat of nuclear explosion has become much more complicated, and the result is that not one, but three nuclear challenges must be met and conquered.

First are other nuclear powers, some of which are new and lack our experience with nuclear restraint that existed between us and the U.S.S.R. The second is nuclear proliferation to states with unstable leaders. The third is the risk of nuclear terrorism. In each of these areas, this administration is pursuing policies—and this is the nub of my thesis here—more likely to lead us into, not away from, the nuclear abyss. Policies more likely to encourage, not stem the spread of nuclear weapons. I hope this administration changes course, but more realistically, I believe it will be up to a new administration to put us back on the path of real security. Let me talk about each of the challenges that I believe we face, about the fallacies of the administration's approach thus far, and about the policies I believe we should be pursuing.

The first challenge is dealing with the major nuclear-weapon states. Some are longstanding—Russia and China. Others are more recent entrants into that position—India and Pakistan—and much less experienced in securing their systems and showing the restraint that developed over 40 or 50 years with the Soviet Union.

The administration seems unconcerned about the question of stability with Russia, arguing that our countries no longer contemplate attacking each other, and although that may be true, I think it begs the question. The risk of a nuclear exchange stems not from our intentions, but rather from the fact that armies defend against worst-case scenarios, and so long as we and the Russians keep thousands of nuclear warheads prepared to respond within minutes of receiving a warning of attack, the risk of nuclear war remains.

We still need to ensure that Russia will not fear a U.S. attack, even in a crisis, and even if one of its radars reports an ambiguous signal. We must also combat the tendency of some Russian officers and officials who still view us as the enemy, and we should take steps now to minimize the risks of war or an arms race with China. None of which we are doing. If we allow simplistic assumptions—the U.S.-Russian accord or U.S.-Chinese competition—to govern our realities with the world's two largest nuclear powers other than ourselves, we'll squander, in my view, an opportunity to truly regularize those relations and to promote peace, and maybe most importantly, predictability.

So the question for me is what specifically has to be done? With Russia, we should get off the dime and get the Joint Data Exchange Center up and running. We also need to finally begin reducing our own nuclear stockpile as this administration has promised. Both of these steps, in my view, will lower the risk of aberrant Russian reactions during a crisis or due to false warning attack.

We also need more attention to China's strategic weapons and its space program. China recently orbited its first astronaut and announced that it intends "to explore outer space and make a good use of the rich resources of space." Some people even foresee a military space race with China.

Now is the time to head that off, as remote as the possibility may be, by making China a full partner in space exploration rather than a frustrated new entrant that has to catch up with the United States. The challenge here, as with so many challenges we face across the globe, is to seize the opportunity and see an opportunity where others see only potential confrontation.

The same is true regarding India and Pakistan. As we reach out to India and Pakistan, the first rule should be do no harm. Friendship with Pakistan must not include allowing that country, or its scientists, to proliferate nuclear weapons technology or equipment. Friendship with India must not include selling it weapons that could trigger a nuclear crisis, like the special operations equipment "to attack terrorist troops operating behind enemy lines inside Pakistan," that India wants us to sell them now.

The second rule is to never give up. As India and Pakistan explore ways to reduce tensions and address the difficult issues that divide them, we must do more to help them avoid that conflict—a conflict that could easily spiral out of control into a nuclear exchange. This might include assisting them to control their borders—a project

that Sandia National Laboratories has been working on for years. It could also include working with other major powers to offer security assurances to both India and Pakistan if they were to give up their nuclear weapons.

A second great challenge is to stop the spread of the world's most dangerous weapons to the most dangerous states. Here the problem starts with the administration's security and nuclear strategies—pre-emption, the development of a new nuclear weapon, the disdain this administration shows for the interests of other countries, and the illusion of missile defense. Taken together, in my view, the doctrine of preventative war amounts to a proliferation policy instead of a nonproliferation policy.

Consider the administration's strategy of preventative war, including the possible use of nuclear weapons against countries that may not even have weapons of mass destruction, let alone be threatening us with their use. This strategy runs the risk of prompting countries to develop nuclear weapons rather than refrain from promoting them since they risk a U.S. nuclear attack even if they do not go nuclear. They will see the acquisition of nuclear weapons as their insurance policy against regime change, which we are not loath to talk about.

Then consider the administration's effort to develop new nuclear weapons such as low-yield warheads and bunker busters. In 1994 Paul Warnke warned especially, that if we were to develop low-yield nuclear weapons for use against third-world countries, "the only logical response would be for small countries to develop nuclear weapons and threaten the United States with a few primitive atomic bombs that could be delivered in comparatively primitive ways." Warnke's warning certainly fits North Korea today and might describe Iran in the future. Further, it doesn't help when the new weapons the administration seeks are largely useless. New bunker busters would cause tremendous civilian casualties due to radioactive fallout, as well as blasts, because they are high-yield. If biological weapons were stored in those bunkers, a nuclear attack would more likely spread the pathogens than destroy them. New low-yield weapons would add little to the stockpile that already has low-yield options and would lower the barrier between conventional and nuclear war—which is exactly the opposite direction we should be moving.

Our search for new nuclear weapons has an aura of mindless devotion to nuclear war. As an old friend of mine who introduced me to this issue, Frank Church, used to say, "Joe, listen to these nuclear theologians and you will much more easily appreciate the debate about how many angels can be placed on the head of a pin." None of them make sense. Truth of the matter is I think this administration is still tied to that nuclear theology.

Our search for new nuclear weapons is one that I still do not quite understand. This undermines the central bargain in the nuclear Nonproliferation Treaty (NPT) that we signed on to—that nuclear-weapon states would gradually move away from nuclear weapons while non-nuclear-weapon states refrained from acquiring them. That was the essence of the bargain. Consider how the administration has alienated the very countries we need to promote and enforce nonproliferation. We undermined international solidarity when we withdrew from the ABM [Anti-Ballistic Missile] Treaty. We make other countries less willing to obey and enforce the nuclear Nonproliferation Treaty when we failed to ratify the Comprehensive Nuclear Test Ban Treaty, give up on START II, and badger our scientists to come up with new ideas for new nuclear weapons.

The administration is especially feckless on a fissile material cutoff treaty. This has been a U.S. objective for eight years because we have more than enough fissile material while countries of concern continue to seek them. For over two years, the administration has castigated other countries for preventing negotiations from starting and now there is a chance for success. However, the administration announced we may refuse to negotiate. As my granddaughters might say, what's up with that? (Laughter.) Will this promote solidarity with our allies who worked for years to help us convince other countries to negotiate? Will this help maintain the support for a firm stand on the need for Iran and North Korea to dismantle their nuclear weapons programs? I think it will have the exact opposite impact.

And finally consider the delusion that the premature deployment of a national missile defense will in any way solve our proliferation problem. Never mind that an ICBM [inter-continental ballistic missile] with a return address is the least likely delivery vehicle a rogue state would use against us. By the way, that is the assessment of the Defense Department as well. We all know that our missile defense will be untested when it is deployed. Several critical components of the system won't even be ready when the president declares it deployed. Its ability to defeat even simple counter measures will be uncertain at best. Thomas Christie, the Pentagon's chief of [operational] test and evaluation, selected by this administration, just made that painfully clear when he wrote "it is not clear what mission capability will be [demonstrated]." He's referring to deployment.

So why is the Pentagon rushing to deploy this system? Will it meet the only test that matters in this area—and that is making America more secure? Or will it give people a false sense of security? Missile defense is no substitute for the hard work of nonproliferation.

So how do we counter proliferation to rogue states? The apparently successful recent agreement with Libya, notwithstanding what is argued, is a product of international isolation, sanctions, and hardheaded diplomacy,

and arguably our demonstrable willingness to use force. Libya must let us see everything and cart it away. As a matter of fact, as we speak or maybe as early as yesterday, a C-130 landed at Oak Ridge chock full of material that has been carted away.

It seems to me what this shows is that negotiations and agreements are indeed possible with countries of concern—even ones with mercurial leaders who have supported terrorism and terrorists in the past. Iran recently signed the additional protocol letting the IAEA conduct more inspections, which is a very vital step. But the IAEA and the developed countries must now be firm with Iran on the terms of its suspension of all uranium enrichment and reprocessing activities. The United States, it seems to me, should be working with our allies rather than picking fights with the IAEA, or our allies for that matter.

We must also address the long-term concern that the nonproliferation regime currently permits countries to manufacture fissile material in their supposedly peaceful nuclear reactor program—a concern that Dr. ElBaradei, the IAEA director general, has raised. [He has] proposed production and management of nuclear reactor fuel be limited to multinational, transparent entities rather than the individual nation-states, an idea, I believe, whose time has come. That idea is worth exploring at a minimum. It will also bolster our demand that countries like Iran and North Korea renounce sensitive fuel cycle activities.

Which brings us to North Korea. Here the administration has largely dithered and delayed. It bungled the issue of their illegal uranium enrichment program and now North Korea has reprocessed, or at least has removed—we know for certain—8,000 spent fuel rods that had previously been stored under international safeguards. As my staff, who recently visited the facility, and leading scientists indicated there is no other rational means that they would have taken these rods to store them somewhere else. So we have to assume they have been reprocessed although we do not have absolute, irrefutable proof that they have. If reprocessed, those 8,000 fuel rods could provide plutonium for six to eight more nuclear weapons. If North Korea has made those weapons, added to the one or two our intelligence community has assumed they had from previous efforts, then it has enough weapons to think about actually using them—or, although unlikely, giving or selling one of those weapons.

The administration's inattention and ideological rigidity has left America less secure today, in my view, than we were three years ago. It is time to get serious about negotiations but that does not mean that you have to yield to blackmail. North Korea must dismantle its nuclear program and stop selling missile technology. But we won't achieve that unless the president instructs his officials to negotiate in good faith—and gives them the leeway to do so. Perhaps, he could keep his ideologues out of the loop as apparently was done with regard to Libya.

One good thing could come out of the North Korea fiasco and that is the Proliferation Security Initiative (PSI). To be sure, PSI cannot prevent North Korea from exporting a bomb. But better coordination and intelligence sharing with like-minded countries can help stem proliferation of the bulky equipment needed to produce such a bomb or long-range missiles to deliver it. For the PSI to achieve its full potential, however, it seems to me we have to get the whole world involved rather than just the 15 or so of our best friends. We must also go to the United Nations if we want to stop shipments in international waters and in international air space.

Our third great challenge is to counter the new threat of nuclear terrorism. The terrorists are not there yet, to the best of our knowledge. Acquiring a nuclear weapon is clearly desirable in the minds of some of these groups—but not yet a reality. But scientists tell us if educated terrorists got fissile material, especially highly enriched uranium, they could make a workable nuclear device.

And lest you think I'm exaggerating. When I was chairman of the Foreign Relations Committee—that brief, shining moment after [Senator Jim Jeffords] of Vermont had an epiphany and before the last election—I gathered the heads of all the national laboratories and some of their subordinates in [the Capitol]. I asked them a simple question. I said I would like you to go back to your laboratory and try to assume for a moment you are a relatively informed terrorist group with access to some nuclear scientists. Could you build, off-the-shelf, a nuclear device? Not a dirty bomb, but something that would start a nuclear reaction—an atomic bomb. Could you build one? They came back several months later and said, “we built one.” I got together all of my colleagues and only a few showed up. Then I figured, well, they weren't paying much attention so I literally asked the laboratories to physically take this device into the Senate. Not a joke. As we used to say when I was a kid, it was bigger than a breadbox and smaller than a dump truck but they were able to get it in. They literally put it in a room and showed and explained how—literally off-the-shelf, without doing anything illegal—they actually constructed this device.

Now lest you think I am crazy. You may remember when we went into Afghanistan and we went to Kandahar, I think it was a *U.S. News and World Report* reporter who came out of a safe house with a diagram of a bomb, or a device purporting to be a nuclear weapon. And there was evidence that there had been meetings between Pakistani nuclear scientists and al Qaeda; in fact, specifically, in all probability, with Osama bin Laden. So this is not some fanciful notion of a person concerned about arms control exaggerating the potential problem.

And they went on to show me that if in fact I had a glass in my hand, hold up the bottom of your glass there.

If you had two spheres of highly enriched uranium about the composition of the base of the glasses you have on your table and were able, at high speeds, push them together in a rifle device—which they had just constructed for our edification—you would have a minimum one kiloton nuclear explosion that had it been at the base of the World Trade towers, it would have brought them down, I believe, within eight seconds and killed over 100,000 people because of the blast and the radiation that would flow from that.

This is not a concern that is exaggerated. But it is hard getting that fissile material. That is the real tough part. But we know it is a desire. So if an educated terrorist got fissile material, especially highly enriched uranium, it has been proven to me beyond a reasonable doubt that it is within the possibility, of the realm of reality, that they could in fact construct a homemade nuclear device. Similarly, if they were to steal or be given a nuclear weapon, they could probably use it or take it apart to build their own device.

If we are to avoid nuclear terrorism in the future there is no more critical effort today than securing the world's fissile materials. Most of the poorly secured materials are in Russia, and arguably Pakistan, but there is so much highly enriched uranium and research reactors scattered around the world that we should be concerned. Three years ago Howard Baker and Lloyd Cutler called upon us to spend at least \$3 billion a year on a Nunn-Lugar type crash program to secure Russia's fissile material. Today the world spends only \$1 to \$2 billion on this. Several U.S. programs are stalled by longstanding liability disputes and not promoted because of the ideologues within this administration who view Nunn-Lugar monies as being fungible monies. In other words, if we pay to destroy their weapons, or this material, or to corral it—they are going to take the money they would have spent anyway and do something very bad with it. I find that logic fascinating.

U.S. and Russian bureaucrats are worrying too much about turf and too little about our shared need to ensure that fissile material is kept out of the hands of rogues and terrorists. The U.S. and Russian presidents need to take a hands-on approach, end the bureaucratic battles, which will not end unless they intervene, and restore a spirit of cooperative problem solving. It is long overdue and dangerous for us not to pursue that.

Similarly, our efforts to repatriate fissile material from other countries' nuclear reactors are laudable, but it is hardly sufficient. At the rate we are going it will take over a decade to finish the task. And that exposes us for much, much too long to the risk of true catastrophe. We need a major increase in our efforts to safeguard the world's enriched uranium and in funding and in the urgency with which we pursue this program. We need greater efforts to secure radioactive sources that could be used in a so-called dirty bomb. I just came from a hearing that Senator Lugar and I conducted on the Council of Foreign Relations' report on Pakistan and India. There is an overwhelming concern about the production of a dirty bomb because of the lack of safeguards that exist within Pakistan particularly—and the environment in which it exists.

So we need a crash program to replace nuclear generators in Russia's remote lighthouses, which are already being vandalized by thieves and could sometime, someday be stolen by terrorists.

We need to maintain nuclear deterrence—even in a world of international terrorism. One useful step would be an international compact in which nations agreed to wipe out any group that dared set off a nuclear device.

A step we can take now would be to improve our ability to collect and analyze nuclear debris so that we can identify, and if appropriate, retaliate against any country supplying fissile material used in such an attack. At least if they know we have that capacity, it may be—although small—a deterrent. My amendment on this passed the Senate last year but it died in conference and I plan to keep pressing this issue.

There is so much more to say about what we should be doing. But let me conclude by saying to suspend nuclear proliferation and avert nuclear terrorism we must loose the bonds of ideology. We must invent new approaches and foster new international cooperation to meet the changing threats.

In the nuclear age, a Hobbesian world can be nasty, brutish and very short-lived indeed. Our military might is a vital force for good in this world but we must also seek the Lockean alternative of agreed restraints and responsibilities. For if we give up on that, I believe we are lost. If we are as clear headed as Paul Warnke was, we even may succeed.

Thank you, very, very much.

(Applause.)

MR. ISAACS: We have time for a few questions. If you would like to speak, raise your hand and then go to the microphone. We will start in the back.

Q: Senator Biden, my name is Benjamin Hu and I am a reporter with *The Washington Times* newspaper. This morning the wire services carried an item that North Korea has signed a compact of some sort with Nigeria to shift ballistic missiles to Nigeria. What effects does this have on the focus of nonproliferation and what do you feel the

nation should do about it?

MR. BIDEN: I have not been briefed on that. I do not know that to be true. I am not saying that it is not; I just do not know.

The effect—if it is true—is all bad. What we should do about it is move as rapidly as we can to make a determination whether or not there is any circumstance under which North Korea would see that there is a path to integration in the world that benefits them more than the continued proliferation and or acquisition of nuclear weapons. They are distinct issues; that is, delivery systems and the acquisition of nuclear weapons. But there is only one way to find that out and that is to engage them.

I am not Pollyannaish enough to suggest to you that I am certain that there is any set of conditions or circumstances under which they would determine that renouncing the shipment of, the production of, and or the acquisition of, nuclear or missile capability would be in their interest. But we do not know. We have, as I said earlier, dithered enough that we have wasted the opportunity to find that out. And I would argue that one of the reasons for that is it is very, very difficult. It is understandable for this very divided administration—I have been here for seven presidents now. I am not being partisan. I have been here for seven presidents. I do not think any of you in this room, no matter how much you like or dislike, or are concerned or are not concerned about the administration's policies. I challenge you to tell me an administration that was more significantly divided on matters of strategic doctrine and on foreign policy as this administration is.

One very important piece of this administration knows that any possible verifiable agreement with North Korea—if that is possible, and I am not predicting it is—would be an incredibly painful process and may yield nothing in the end. But if it did yield anything, one element of that agreement would have to be a non-aggression pact, and that is very difficult, understandably, for the neo-conservatives. It is a little bit like me as a Roman Catholic denying the existence of a trinity. I would not be a Roman Catholic. It is a little bit difficult for the neo-conservatives to conclude that they were going to forbear the continued existence of a regime in North Korea that is evil in order to get an agreement that related to—assuming it were verifiable—the disposition of nuclear and/or missile technology, or the continued acquisition.

So it is a very tough call but I think there is only one way to find out. And I am not alone in this. Senator Lugar, a leading Republican in the United States Senate, and many others share my view. The only way to find out is talk. Talk seriously and relatively soon.

MR. ISAACS: I see people are well-trained. They have launched a pre-emptive strike and are right in the middle. Ask the question, please identify yourself first.

Q: David Culp with the Friends Committee on National Legislation. This year, is going to be a short year. Do you see any arms control opportunities in Congress? What would you be focusing on in 2004?

MR. BIDEN: In the interest of time, no. (Laughter.) I am not being facetious. The answer is no. I see virtually zero possibility of anything happening in the Congress on promoting arms control unless—I have already said it once—as Catholics say, there is an epiphany on the part of the administration which I do not anticipate. I do not believe that much in miracles. (Laughter.)

Q: Senator, Bill Jones from *Executive Intelligence Review*. It is becoming more and more evident now that there was misinformation that has been spread, prior to the Iraq war, utilizing faulty intelligence, perhaps consciously, in order to create a pretext for war. It has also become very clear that much of this was coming out of the office of the vice president where the material was probably massaged and worked over so as to create the argument they wanted. My question is—and I know there are investigations going on in Congress, but it has dragged on for quite some time and the American public still is not fully clear about the culpability of the office of the vice president. Is it not time to get some motion in terms of the investigations on these subjects since 500 American soldiers—more than that—have died in this Iraq war?

MR. BIDEN: The answer is yes. But it is not going to happen. I unfortunately have a reputation of being not always right, but blunt. And you are all very well educated and you are a very sophisticated audience. And I would be kidding you if I suggested that I thought there was any possibility of there being a real investigation. Look at what the Congress has decided to do under the leadership—he's a fine fellow—under the leadership of the Republican co-chairman of the Intelligence Committee. They will investigate only one thing: whether or not the information that the intelligence community gathered was accurate. They explicitly will not investigate whether or

not it was used properly or misused.

I will say only one other thing. I have been around long enough to know that in very important issues of consequence to our security, our economy, our nation's well-being and health, that it is best to build a record. And during the entire run up to the war in Iraq—and I actually put it together so the press would not have any doubt about it—I put together a compilation of all the things I said about what I believed or did not believe about the information we were being given by the intelligence community relative to the nature and the immediacy of the threat, and the capacity.

I never believed and so stated contemporaneously back as far as July of last year, that they had any ability to have reconstituted their nuclear capability. I never believed there was any evidence of them having weaponized the stockpiles—which I did believe, because the UN had indicated it—that they still had, in their possession. And I never believed that there was any reason for this being moved by the vice president and others for any other reason than to create the sense of urgency that did not exist. There was no imminence to the threat if there was not the probability that he was reconstituting—or close to reconstituting—nuclear capability or he had weaponized his anthrax, VX, and other stockpiles. I did believe he had stockpiles. Whether he had weaponized those in a way that he could, in fact, disseminate those materials in a way to kill tens, hundreds, thousands, or as indicated by the administration, millions of people—I never believed any of that and I still do not believe that.

Will we get to the bottom of this? The answer is not before this next election is over. Even the 9/11 commission, headed by a very well respected former Republican governor, has been stonewalled in terms of access to information on this score. My guess is you will see between now and November of this year, the CIA and in particular the director, take the full brunt of this. The president and the cabinet will be hopeful that that will satisfy everyone—that a dead dog has been delivered to the door, and that we have found the culpable party and we will move on. But I believe that there must be, even if it has to wait until after the next election, there must be for our own safety's sake in the future a thorough, serious investigation of this matter.

You all remember—and in the interest of time I will not take you through it—that famous exchange when John F. Kennedy sent the Secretary of State over to meet with Charles DeGaulle during the Cuban missile crisis. I will paraphrase in the interest of time. [The secretary] said, by the way, Mr. President, the president of the United States has authorized me to show you all this evidence. [DeGaulle replied,] I do not need to know, I do not need to see it. I trust the president of the United States. He would not make this assertion without it being absolutely true.

The single goal I have for a Republican or Democratic president next time around, is to reassert our credibility to the degree that a foreign leader would be willing to say that to an envoy of whomever the next president is.

(Applause.)

It is in our national interest that that be the case. And I do not think you would find a single world leader, including Tony Blair, who would buy it without proof. Very damaging, very damaging to our war on terror.

Yes, sir?

Q: Senator, Hermann Hagen, retired German Air Force. I am now working for European security, the military mostly. First let me express my appreciation for the concern you have shown for the sensitivity of your friends and allies in Europe in questions of arms control. I really appreciate it. You brought up the possibility of a space race, a military space race between China and the United States—a subject that I am dealing with too. My question is: China maintains that both Russia and China have for at least 10 years tried to reach agreement in Geneva, at the [Conference on Disarmament], about extension of the 1967 Outer Space Treaty, interpreting this treaty in such a way, officially, that it would prohibit deployment of any weapon, not just nuclear, but also conventional weapons in space. At the time the treaty was concluded it was not considered likely or possible to deploy conventional weapons, but the preamble says outer space should be for the benefit of all mankind.

How likely do you think it is that a future U.S. government would change the attitude towards a new interpretation of the Outer Space Treaty? Thank you.

MR. BIDEN: I really am on thin ice here. I would argue that it warrants more than reinterpretation. I would argue that only through U.S. leadership should we be able to negotiate a clearly articulated position relative to the weaponization of outer space. Now I suspect the reason why neither China nor Russia has been able to reach agreement on this, is that you have, not an official policy, but you have clearly articulated positions coming out of this administration that suggests we should weaponize space. For peaceful purposes (audio break, tape change)... but there is open discussion, hardly anything is being discussed about arms control or arms buildup now because of the overwhelming predominance of the issues relating to terrorism, the war in Iraq, and the war in Afghanistan.

Not much has made the front page of the paper. But I take you back to just prior to Iraq, prior to 9/11 to be more precise. The almost total fixation of this administration was on moving a national missile defense program as rapidly and robustly as could possibly be done. That fixation got preempted on 9/11 by another fixation—more justified in my view—dealing with international terror and the prospect of terrorist groups acquiring weapons of mass destruction.

But that does not lead me to believe that all of those energies within the administration that were pushing very hard relative to various national missile defense schemes, including using outer space, have gone away. They certainly have not receded in the minds of my European friends. They certainly have not. The concern about what we may be thinking has not receded in the minds of my European friends, as you know better than I, and in terms of our Russian friends, our Chinese friends, or anyone else in the world.

But these are the unattended-to concerns that are the ones that are the most likely to jeopardize my grandchildren more than almost anything else that can happen in the near term. But it is going unattended. You hardly hear any discussion about the desire to acquire new nuclear weapons. Imagine if that debate had ensued prior to 9/11. It would consume the bulk of the public interest. It would be on the front page of every paper running for the last six months to a year. But you hardly hear it, it is hardly mentioned, and it is underway.

The reason why it so important that you all continue to raise these issues is because there is almost no other fora in which it gets raised. What happens is, we in Congress, whether it is through ineptitude on my part and my colleagues or some other reason, but we tend to deal with that which is the most urgent thing staring us in the face. And today it is American soldiers being killed in Iraq. And it is very hard, it is very hard, especially when you are not in control of the mechanisms of the Senate. It makes a difference. It makes a gigantic difference who chairs the various committees.

The question the gentleman asked me about intelligence; can you imagine what it would be if there were 53 Democrats and 47 Republicans? I guarantee you the Intelligence Committee would be not only investigating the soundness of the intelligence generated, but the use of the intelligence that was generated. I guarantee you that there would be hearings in the Foreign Relations Committee laying out, from all sides, the rationale or the need for an additional nuclear weapon, a new nuclear weapon, and so on. So it matters. It matters a lot.

Now again, obviously I'm partisan, but I am trying to not reflect my partisan, that is, Democratic, point of view with a capital D. I am trying to reflect a point of view as a person who believes that the control of nuclear weapons, the prevention of the proliferation of that capability, is still the single most urgent requirement for all of mankind.

Thank God for Senator Lugar and his absolute commitment to nuclear threat reduction programs and his quiet and forceful way. He continues to persist with this administration and push it. But short of that, name me any of the issues you raised here today you think would find any airing, even a straight objective airing, in any committee or any forum in the United States Congress. Name me one of the issues you have raised that would lend themselves to a genuine congressional oversight and or investigation. It is not going to happen; not going to happen until there is a change, if there is a change. I am not predicting anything. I have no idea what the hell is going to happen in the next election. Another nine months is a lifetime in American politics. So I do not know but I think we should—as the kids say—get real here.

None of this is going to find the forum that is the only forum that ever has generated national interest, generating the front page of every newspaper and magazine, and the top of the broadcast of the network news and all the proliferation of television stations around. It is either generated by the president or the Congress. With all due respect to all of you, as hard as you work, you can't even get on page 12. I'm not joking. It is not a criticism. It is an observation. And therefore the American people think it is not that big of a problem because if it were a problem it would be on the front page. So I hope that we have a change of circumstance that allows to be able to get it on the front page because I have ultimate faith in the good judgment of the American people providing the backing required in order to get us to act more responsibly.

I thank you all very much.

(Applause.)

Senator Joseph Biden is the senior senator from Delaware and Ranking Minority Member of the Senate Foreign Relations Committee. First elected to the Senate in 1972, Senator Biden is now serving his sixth term. In addition to his leadership on foreign policy, Senator Biden is also active on legal and victims' rights issues as Ranking Minority Member of the Judiciary Committee's Crime and Drugs Subcommittee. He is a member of the Senate National Security Working Group, Senate NATO Observer Group, and co-chairman of the Senate Delegation to the NATO Parliamentary Assembly.



During his three decades in the Senate, Senator Biden has dedicated himself to improving U.S. security and championed arms control as crucial to achieving that goal. For Biden, a top security priority today is stopping proliferation. He recently wrote, "In the war on terrorism, our foremost long-term objective must be to prevent the spread of weapons of mass destruction and the means to make them." He holds that there is not a single approach to addressing this danger, and promotes a combination of policies, including deterrence, security assurances, nonproliferation, diplomacy, and the use of force if necessary.

Senator Biden backed military action against Iraq last March to enforce UN demands that Saddam Hussein disarm. Although he was supportive of President George W. Bush's decision to invade Iraq, Biden has publicly questioned the administration's prewar planning and its failure to get the international community more involved. He warned last September that, "losing the peace in Iraq would mark a major victory for the forces of tyranny and terrorism and a significant setback for the forces of progress and modernization...If we fail, the impact on our national security would be grave."

Senator Biden advocates hardheaded engagement in dealing with Iran and North Korea, the other two members of President Bush's "axis of evil." He supports working closely with our allies to end Iran's support for terrorism and its weapons of mass destruction programs. He also favors direct dialogue with the Iranian government. Biden calls for putting more details on the table about what the United States would offer North Korea in return for a verifiable dismantlement of Pyongyang's nuclear weapons efforts and ending North Korea's exports of ballistic missiles and missile technology.

Senator Biden is sharply critical of two Bush administration proposals for addressing proliferation threats: building strategic missile defenses and potentially using new nuclear weapons to deter adversaries or destroy their arms stockpiles. Arguing in May 2003 that nuclear weapons are of a "wholly different order and magnitude" from all other arms, he said any benefits derived from developing new types of atomic arms would be "far outweighed by both the risk that they will actually be used and the dangerous signal that they send to other countries—intentionally or not—that we intend to fight nuclear wars." He also views the Bush administration's strategic missile defense deployment plan this fall as counterproductive, stating: "The push to deploy that system has been at the expense of making an effective defense." In general, Biden rejects unilateral U.S. approaches to dealing with proliferation, and believes, "We cannot close down proliferation traffic by ourselves."

Before his election to the Senate, Senator Biden worked as an attorney in Wilmington, Delaware, and served on the New Castle County Council. He was elected to the Senate before his 30th birthday, and is viewed by many congressional experts as the only current lawmaker capable of surpassing the late Senator Strom Thurmond's 48 years of Senate service. A constitutional law expert and former Judiciary Committee chairman, Senator Biden has been an adjunct professor at the Widener University School of Law since 1991.

Conceptually, tomorrow's arms control challenges will be much like those of today: preventing terrorists from acquiring unconventional weapons and reducing the dangers posed by the spread, possession, and use of nuclear, chemical, biological, and conventional arms. As times change, so do friends and foes. New technologies may also make new forms of weapons possible. Therefore, effective long-term strategies to protect against the most deadly weapons and new forms of weaponry must be comprehensive in nature; policies and principles cannot be applied selectively on the basis of current relationships between governments. Moreover, good relations between capitals provide little solace or security if a country's arsenals or weapons know-how are open to theft, sale, or misuse.

Over the past four decades, the United States has helped create and enforce international norms against nuclear, chemical, and biological proliferation through a web of mutually reinforcing regimes and arms control agreements. To preserve the viability of these norms, the United States must demonstrate through its own actions that it supports their universal application. Otherwise, U.S.-led efforts to persuade other countries to give up or forgo these weapons of mass destruction will be unconvincing. Bush administration initiatives to explore new, more usable types of nuclear weapons and plans to indefinitely deploy some 2,000 strategic warheads with thousands more in reserve against no comparable threat wrongly suggest that nuclear weapons have viable military uses. If the country with the most powerful conventional forces in the world today claims to need nuclear weapons to protect its security, other countries will likely draw the same conclusion. U.S. nuclear policy should reinforce, not undercut, its nonproliferation goals.

Preventing terrorists from obtaining nuclear weapons or material has to be the foremost U.S. and global nonproliferation objective. Unlike states, terrorists would be certain to use a nuclear weapon if they acquired it. Although the United States has been funding efforts to secure and destroy nuclear weapons and material in the former Soviet Union for more than a dozen years, much more remains to be done. Russia possesses roughly 1,150 metric tons of bomb-making material in its vast and not fully secure nuclear complex. However, the potential sources of a terrorist bomb are not confined to Russia. Some 40 countries have research reactors that use fissile material that could be turned into nuclear weapons. Successful operations to remove such material from Bulgaria, Romania, and Serbia should be quickly copied elsewhere.

During the late 1990s, speculation mounted that a biological, chemical, or nuclear attack against the United States could be carried out via a ballistic missile, reviving support in Washington for building missile defenses. This change in political sentiment occurred even though the U.S. intelligence community judged that long-range ballistic missiles were not the most likely delivery means for an attack on U.S. territory. In December 2001, President George W. Bush announced the U.S. withdrawal from the 1972 Anti-Ballistic Missile Treaty in order to pursue nationwide missile defenses. Defenses, particularly those against short- and medium-range ballistic missiles, may be part of the solution to the proliferation problem, but they can also be trumped. Moreover, proposals to jointly build or share anti-missile interceptors with foreign countries may only fuel missile proliferation further because the technology in both is essentially interchangeable. The surest safeguard against ballistic missile attack is to deny their spread.

—*Arms Control Association*

PANEL THREE

Addressing Future Arms Control and Security Problems

CHAIR: Catherine Kelleher,
*Editor, Naval War College
Review*

**DENYING NUCLEAR
WEAPONS TO
TERRORISTS:** Matthew
Bunn, *Senior Research Asso-
ciate, Project on
Managing the Atom*

**STEMMING MISSILE
PROLIFERATION:** Richard
Speier, *Nonproliferation
Consultant*

**THE ROLE OF NUCLEAR
WEAPONS IN U.S.
SECURITY POLICY:** Gen.
Eugene Habiger, *former Com-
mander in Chief of the U.S.
Strategic Command*

CATHERINE KELLEHER: Hello. I'm Catherine Kelleher, and I'm very pleased and honored to have the chance to introduce this panel. I think it's been a splendid morning, and certainly with an agenda of topics that make this panel about assessing future directions in arms control and in security even more important as we bring this wonderful day to fruition.

I'd like to start, if I could—it's a cheap trick but I'll do it anyway—with arguing with the last speaker, Senator Biden, in what otherwise I think was a very stimulating address and certainly one that called on us to meet certain challenges in our future. He made an argument that perhaps it would be a good idea if the future would be like the past. I would at least like to challenge my fellow panelists to say, is the future really going to be like the past? Now are the forms, the techniques, the tool kit of arms control really going to be the same, or are there challenges about the evolving international system, about the ways in which we have found to cooperate in finding answers to meeting the challenges of proliferation, or even the restraint and constraint of arms development and spread really going to be the same as those tools and instruments and tool kits from the golden age of arms control, if it ever existed?

You have the biographies of what is truly a distinguished panel in your pamphlets, so without further ado from me I'll start with Matt Bunn, who will be our first speaker, followed by Richard Speier, and then by General Habiger.

MATTHEW BUNN: Thank you, Catherine. In terms of the tool boxes of the future versus the past, it's interesting that I don't think the word "treaty" appears anywhere in my particular presentation. While the present is in some respects worse in the subject area I'm going to talk about than the past, we can hope, if we take effective policy action, for the future to be better than the past. But the actions that need to be taken are largely in the way of national actions or international cooperation in various formal and informal fora, rather than negotiation of formal treaty regimes in this particular area.

It's an interesting point because very often, certainly when I was in the government, there were different views as to how to move forward. The traditional response in some quarters of the State Department was "we've got to go meet with the Foreign Ministry people and negotiate a text about what we're going to do." The response at the labs was "let's go to talk to their technical guys and see if we can get something going." That in fact often worked a lot better. There were things you can do over a couple of vodkas at a site that you would never manage to get going at headquarters in Moscow.

I'm in the fortunate position that while there's a time constraint, I will be more easily able to meet it because Senator Biden covered approximately half of what I was going to say. The basic points being that there remains a serious threat that terrorists might get nuclear materials and that they might be able to make a nuclear weapon if they did. And then I'm going to go on from there to talk about what programs we have in place to deal with that and what more ought to be done.

First of all, there are a number of myths, some of which Senator Biden already debunked. In particular, the notion that it would be almost impossible to make a nuclear bomb even if you got the nuclear material; that it

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would take some kind of Manhattan Project. Unfortunately, the laws of physics aren't set up that way. I wish that were true. It turns out, in fact, particularly with highly enriched uranium, from which you can make a simple gun-type bomb, that making a nuclear explosive is little more than getting two pieces of highly enriched uranium together fast enough. It's potentially well within the capabilities of a sophisticated terrorist group like al Qaeda. Unfortunately also, it's not as hard as it once was to get the nuclear material. I'll talk about that more in a minute. It's not only the former Soviet Union but also many countries around the world this material is inadequately secure.

One of the reasons that we haven't seen more action coming out of this administration on this agenda, even though we do in fact have a president who seems to be quite alarmed about the possibility of terrorists getting weapons of mass destruction, is that there's a belief that it would really take a hostile state to provide them these kinds of weapons. Therefore, the answer, the policy prescription is to take on the hostile states. It's certainly conceivable a hostile state might provide weapons of mass destruction to terrorists, though I personally believe it's extremely unlikely. But there are other routes. Those routes have to be closed down. We can't rely on offensive action against hostile states to do that. Nor can we rely on our ability to stop things coming into our country. After all, thousands of illegal aliens and tens or hundreds of tons of illegal drugs come into our country every year despite our efforts to stop them.

I'm going to skip over some of this material because Biden covered it. This is just a photo of Hiroshima, just to remind ourselves. That was a gun-type, very simple gun-type bomb.

Now a lot of people say, well, this was a big deal in the 1990's when highly enriched uranium was showing up in cars in Prague and so on, but that hasn't been on the front pages of the papers lately. Surely that's pretty much taken care of by now. Unfortunately, that's not the case. Russia is a very different place today than it was five or ten years ago. The economy is growing. The government actually has a budget surplus. The government is in significantly firmer control of a variety of things than it was a few years ago, and in particular nuclear workers are getting paid a living wage on time. So we no longer have, as we did in 1998, for example, guards at nuclear facilities leaving their posts to forage for food, electricity that ran the alarm systems at nuclear sites being cut off because the site hadn't paid its electricity bill, and so on.

Nonetheless, the people who actually go to these sites on a regular basis continue to report that when you get there the fence is often broken down, has holes in it, the intrusion controls are no longer working. These are kinds of systems that need to be maintained regularly, particularly in the harsh weather in northern parts of Russia, and that level of maintenance is not happening. So we continue to have serious weaknesses in the security systems—and also in the accounting systems, by the way. The accounting systems in Russia were really designed to make sure that production was within a couple of percent of input at a given facility—so that you were meeting quota—rather than designed to detect theft. And the reality is that no one will ever know how much material has already been stolen because the accounting system isn't good enough for anyone to ever be able to determine that.

But in addition to the vulnerabilities being high, the threats remain high. The Russian officials have acknowledged four cases, very recent cases, 2001 and 2002, of terrorists carrying out reconnaissance at Russian nuclear warhead storage facilities or Russian nuclear warhead transport trains. The locations and schedules of those trains and storage sites are secret. That secrecy is a very, very important part—I would say the largest part—of the security regime for those facilities. So it's really quite scary that the terrorists were able to penetrate those secrets.

Now we know that in October 2002, 41 heavily armed and suicidal and well-trained terrorists struck without warning and seized a Moscow theater. Russian officials have indicated that those terrorists considered seizing the Kurchatov Institute before they decided on seizing the theater. At the Kurchatov Institute there's hundreds of kilograms of highly enriched uranium, enough for dozens of nuclear weapons. And I have to say that most nuclear facilities' security arrangements in the world, including most in our country—certainly for civilian facilities but even for some military facilities—would not be able to reliably defend against 41 heavily armed suicidal guys arriving with absolutely no warning and with a decent plan of attack.

This is not just a Russia problem. There is weapons-usable nuclear material in hundreds of buildings in more than 40 countries worldwide. Some of the security for that material is excellent, but some of it is very, very bad. There are no binding global standards in place. There are more than 130 operational research reactors fueled with highly enriched uranium, the easiest material in the world for terrorists to make nuclear bombs from, in more than 40 countries. Most of those have no more than a night watchman and a chain link fence for their security. The one down the street from me in nuclear-free Cambridge at MIT, which operates on 93 percent highly enriched uranium, after September 11, added a guard. There's a Cambridge police officer who literally stands on the street outside the reactor, and obviously would be dead within seconds if anybody ever actually attempted to attack that

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facility. There's not, by the way, very much highly enriched uranium there so let's not get too excited about that particular reactor. But at a lot of others there are. In Libya, there is a Soviet-supplied research reactor with enough essentially fresh highly enriched uranium for a bomb sitting at their facility. It's my understanding that material is going to be removed as part of the deal with Libya.

There are issues around the world. Pakistan remains a very high concern from my perspective, not because security is low. We believe that there is pretty heavy guards for that stockpile, but because the threat is extraordinarily high. Both the insider threat, as is now unfolding in our newspapers on an essentially daily basis, the degree to which insiders in their nuclear establishment have been, either for personal gain or for Islamic fervor, or the combination, spreading this kind of technology. But also the outsider threat, since you have heavily armed remnants of al Qaeda. If you're going to have 41 heavily armed guys attacking the middle of Moscow, imagine how many people might attack without warning at a Pakistani nuclear weapons storage facility.

So do terrorists want nuclear weapons? Yes. Bin Laden has said so. The Chechens are carrying out these reconnaissance at nuclear warhead storage sites. Is it conceivable they could make a crude bomb? Yes, as Senator Biden said. Is there material that might be vulnerable to them? Yes. Is it likely that if they had a crude device they could smuggle it into Moscow or into Washington or into New York? Yes, unfortunately so.

We did a study that came out a year ago, which was available out on the table. I gather all of them are gone now. It's available on the Worldwide Web at the Nuclear Threat Initiative's Web site—it's *Controlling Nuclear Warheads and Materials: A Report Card and Action Plan*. We looked at the terrorist pathway to the bomb. We tried to lay out the steps terrorists would have to take to get from first deciding to pursue nuclear violence to actually detonating a weapon in the United States, and then the various things the government might be able to do to address those, ranging from threat reduction to the global war on terrorism to homeland security.

The bottom line is that the weak point for the terrorists, the hard point for the terrorists, and the most cost-effective place for us to act is in securing this material in the first place. Once it gets out of wherever it's supposed to be, finding it and getting it back again, or stopping it from coming into our country becomes a very, very difficult problem. So as Senator Biden was saying, the fundamental issue is we've got to lock down every nuclear weapon, every kilogram of nuclear material that could be used to make a nuclear weapon wherever it is. Much has been done to do that over the last decade or so. The Russians were taking quite a number of steps themselves, although generally in their case it's been add more guards. Add more guards is good if the outsider threat is the main threat. If the insider threat, somebody carrying something out in their briefcase, is the main threat than whether there is one guy saying, "have a good weekend" to Ivan as he's walking out, or whether there's five guys saying that, it really doesn't make any difference.

U.S.-Russian cooperation has improved security for hundreds of tons of nuclear material and thousands of nuclear warheads at dozens of sites. Enough bomb material for thousands of nuclear weapons has been permanently destroyed. Many of you may not know that half of all the fuel we use in our nuclear reactors in this country today comes from dismantled Russian nuclear weapons. They dismantled the weapons, they take the highly enriched uranium from the weapon, they blend it to low enriched uranium that can never be used in a nuclear bomb again. They ship it over here and we use it as fuel in our nuclear reactors, and it's all done on a more or less commercial basis so it basically doesn't cost the taxpayer anything. It's quite an amazing accomplishment, but we ought to be doing it faster.

We've also removed, with the Russians, and with the IAEA some nuclear material from some particularly vulnerable sites. A lot of people have worked hard. But the reality is that much more remains to be done than has been done so far. As of the end of last fiscal year, only 23 percent of the potentially vulnerable nuclear weapons that had had comprehensive security and accounting upgrades installed with U.S. assistance. Less than half had even had the first round of what are called rapid upgrades, things like bricking over windows that you could pass material out through, or piling a big block in front of the door, that kind of thing, completed.

Now if you look at the number of sites where those have been completed, the numbers look better because a lot of the sort of little sites with small amounts of material were done first, and that was probably a good thing because I think those were some of the most vulnerable places. But the pace simply doesn't match the threat. Secretary Abraham announced with great fanfare last year that they had secured 35 tons of nuclear material that year. Well, that's six percent of the material. If you kept going at that rate, it would be 13 years to get done.

There are impediments that run across departments, and as Senator Biden said, you really need sustained presidential action. We know how to do this. The technology is very straightforward. The issue is the politics and the bureaucracy. In part, because these issues are very sensitive. Convincing the Pakistanis to let anybody, let alone us, come to their nuclear sites and help improve security at those sites is a very difficult sell. Convincing the Russians has been a very difficult sell over the last decade because the threat those security systems at Russian sites were designed to deal with was not a terrorist threat originally. They didn't expect terrorists running around

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on the territory of the Soviet Union. It wasn't really an insider threat. It was mainly American spies. So convincing them that having American spies crawling all over their facilities is part of the answer and not part of the problem has been a huge effort.

But if there was real commitment from the top, the technical people who do these kinds of upgrades say, we could get this done really fast. If President Bush and President Putin said to their respective governments, "I want every kilogram of this material secured. I want every nuclear weapon secured. I want it done now. And I want it done as fast as it possibly can be, and certainly in no more than four years. I'm going to give someone the job of making sure that happens, of identifying the obstacles and of telling me every time there's one that I personally need to resolve." This would happen, and it would happen relatively quickly. My estimate is that you could get all of the security upgrades in the former Soviet Union completed in four years, with the kind of leadership on both sides that's required.

So what does the president need to do? He needs to make this a top priority, set firm goals as to when he wants it done, appoint somebody to make sure those goals are met, and to follow up. He needs to make nuclear security a key focus of the relationship with Russia and with others—something that needs to be addressed at every opportunity, at every level, until the job was done. If we had even a half, or probably even a quarter of the level of sustained political engagement that was devoted to Iraq, this job would get done and it would get done very quickly. I believe given the scale of the threat that I believe is out there in terms of terrorists wanting to do this, terrorists potentially having the ability to do this if we don't do something about it, that it deserves that level of sustained political engagement.

There are several particular initiatives that [the president] ought to launch. I'm hoping legislation will be introduced very shortly on what I call global clean-out, which is basically creating a single mission-oriented office with all of the authority, expertise, resources, and flexibility to go out there and negotiate to get vulnerable nuclear material out of the world's most vulnerable sites as rapidly as that can possibly be done. Currently, we have a number of stove pipe different programs addressing pieces of that problem, with some gaps between them, not enough incentive authority for them.

Another thing, another particular initiative that I've been advocating is a new round of unilateral initiatives like the 1991-92 presidential nuclear initiatives, but this time with monitoring. The United States and Russia would each agree to take thousands of warheads, including any warheads that remain that don't have some kind of modern electronic system to prevent unauthorized use, whether it's an electronic sensing device that only sets it off after the cannon shell has been fired, something like that, or whether it's a permissive action link, and put them in secure storage open to monitoring by the other side. And then commit that these warheads will be verifiably dismantled when the sides have agreed on procedures to do that without unduly revealing classified information, and commit that the material from them, once they are dismantled, will be similarly secured and monitored.

If you did that, within a matter of months those warheads that pose the biggest threat, largely tactical warheads on the Russian side, could be under jointly monitored lock and key, and that would be a huge improvement from the point of view of U.S. security. As I mentioned, half of the fuel we use in our nuclear reactors is from Russia. But we're buying about 30 tons a year and they have over 1,000 tons remaining. So at that rate it's going to be a long, long time before that threat goes away.

It turns out [that Russian] facilities, with the equipment they already have in place, possibly with a couple of extra machines installed, could blend twice as fast, but they're not doing that because nobody's paying them to do that. The commercial market at the moment wouldn't absorb more than the 30 tons a year. So why not pay them to blend the stuff down twice as fast and store it until the market is ready for it? There have been some small motions in that direction. Congress unfortunately denied the money for the first step that the administration was asking for last year. The administration is going to come back again in the budget that will come back on Monday, knock on wood, and I hope that Congress will in fact fund it.

The Nuclear Threat Initiative and MINATOM are now engaged in a really remarkable way in a joint study of exactly what would it cost for Russia to do this accelerated blend-down. The Russians have already provided a report to us, about this thick, on exactly how the blending is done at these various facilities, and they're taking it very seriously. The people who monitor that blending for the United States said, gee, we thought that was how they did it but they never let us in to that particular building, and here they have photos and they're telling us all about it. So that is going quite well.

Senator Lugar not long ago defined what he called the Lugar doctrine. And one of the elements of the Lugar doctrine was that you could not call the war on terrorism won until every nuclear bomb and every cache of potential bomb material everywhere in the world was secured and accounted for in a way that was demonstrable enough that we would be confident that that was true. That is demonstrably not the case today, and it's not going

to be the case any time soon on the track we're on. We need a sea change in the level of sustained presidential leadership to get this job done.

Key questions that Nuclear Threat Initiative always asks, and that I think may have been first posed by Graham Allison, is on the day after a nuclear terrorist act, what would we wish we had done to prevent it, and why aren't we doing that now. Thanks very much.

RICHARD SPEIER: My duty is to talk to you about missiles. I'm the only one of the nine speakers talking about something other than nuclear, chemical, or biological weapons.

Why are we concerned with missiles, especially when we hear about the ease of delivering nuclear, chemical, or biological weapons through infiltration, through terrorist delivery? Well, take a look at it from the point of view of a dictator who always has to worry about the reliability of the people working for him, and the confidence he can have that his weapons and the family jewels of his reign, such as nuclear weapons, will not be turned against him.

It's very risky to turn these over to individual cells for delivery, as opposed to using what was called by science fiction writers in the 1930's and the 1940's, push-button war. It is so seductive for a dictator to contemplate in effect pushing a button and reliably causing great destruction at great distances. That's the glamour of missiles for the people we're worried about.

Now it's very important at the outset to understand the distinction between two kinds of missiles. First are ballistic missiles, the kinds of missiles that people usually talk about, especially arms controllers. Ballistic missiles are rockets. They are powered just for the first part of their flight and then they coast ballistically, like artillery shells, all the rest of the way to their targets.

The other kind of missile is a cruise missile. It is generally like a small airplane, although it can be like a small rocket. Its characteristic is that it is powered not for the first part of its travel but all the way along to its target. It's very important to remember cruise missiles when you are talking about delivery systems and not to stop with ballistic missiles. In fact, when I was in the Defense Department, we tried to train everyone to talk about ballistic and cruise missiles, ballistic and cruise missiles. The reason is that cruise missiles are less expensive than ballistic missiles, simpler to make, quicker to make, easier to obtain in large numbers, more accurate, and potentially much more attractive to terrorists.

It's difficult to think of simple ways to get a ballistic missile to go from the Middle East to the United States, but it is much easier to have a cruise missile that can be launched off a ship, perhaps a container ship, that could reach the United States from a few hundred miles offshore. Cruise missiles are a threat that can appear very quickly. The experience in World War II showed—where—when the Germans were using both ballistic and cruise missiles—those simple cruise missiles, even though two-thirds of them were intercepted by the British Royal Air Force, caused seven times as many fatalities as the ballistic missiles.

With that technical background, I'd like to talk about six different directions that missile controls could go in the future. I'll briefly go over each of the six and then focus on comparing and contrasting two of the directions. The first direction is the long-standing policy—it's now 17 years old—against the proliferation of missiles capable of delivering mass destruction weapons. This is the Missile Technology Control Regime, or MTCR for short. It is a supplier-controlled regime. That is, it controls exports. It does not represent any kind of consensus among the have-nots that they will not obtain missiles. But the MTCR takes advantage of a fact about missiles that makes them unusually controllable, and that is that missiles of whatever kind require a very large number of bits and pieces, and all of these have to work reliably the first time, under very difficult conditions. Especially for ballistic missiles, the temperatures, the vibrations, the pressure and de-pressurization, the need to keep missiles in storage in the field for long periods, all this makes it very difficult to get these, in some cases hundreds of thousands of components that need to work together in a missile, to work reliably. You don't need to block every bit and piece that goes into a missile in order to block or slow down the missile program. You just need to block enough of them, and that's what export controls can do. That's what the MTCR has done with some success over the years.

The MTCR as a policy has one major element, and that is to draw a very strong line between items that you can export on a case-by-case basis, and items for which there is a strong presumption to deny export approvals. That strong line separates a lot of bits and pieces from entire systems—rocket systems or unmanned air vehicle systems—that are capable of delivering a 500-kilogram payload to a range of 300 kilometers. When we designed the MTCR, we came up with the number 500 kilograms because that's the weight of a relatively unsophisticated nuclear warhead. We came up with the range 300 kilometers because, considering the way in which you use missiles in the field, that is the range of a nuclear capable missile in a relatively compact theater.

We use these numbers in order to have a clear engineering definition to support this line between what you can make case-by-case judgments about and what is strongly presumed to be denied. The rocket systems that are

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over this line, over the MTCR threshold, are not just ballistic missiles. They are rockets of any kind that can deliver 500 kilograms to 300 kilometers, including space-launch vehicles and scientific sounding rockets. This was very difficult to get the seven nations, the United States and the rest of the Western economic summit nations, to accept when we negotiated this regime in the mid-1980s—the idea that you put identical controls on military ballistic missiles and on civilian space-launch vehicles and scientific sounding rockets. But it was absolutely necessary in order to have a strong, unambiguous line.

The other items controlled are entire unmanned air vehicles, whatever they are called, if they have that range and payload capability I described. Cruise missiles, unmanned air vehicles, reconnaissance drones, target drones. If they have that capability, they are subject to a strong presumption of export denial.

Now there are good missiles and bad missiles in the world. Some defensive missiles are very good, and so we needed some way of defining what it was that the regime was going to target with its export controls. That line is the essence of the MTCR. To begin to fuzz that line is to begin to weaken our ability to control the spread of missiles.

Let me mention the second policy that could be the basis for future activities. I'll go back to the MTCR in a bit. The second policy is something that came up a little over a year ago, came to fruition a little over a year ago, that was put together by the 33 governments that are now members of the MTCR. This new policy is called the International Code of Conduct, or the ICOC. Its purpose was to bring the have-nots in on nonproliferation of missiles, not just to have it be a supplier export control regime. The idea of an international code of conduct was developed in the late years of the Clinton administration and then implemented in the Bush administration. So it is a bipartisan concept. It has succeeded in more than tripling the number of governments subscribing to a missile nonproliferation policy. Compared to the 33 members of the MTCR, there are over 100 members of the ICOC now. The latest countries to subscribe of which I am aware are Eritrea, Liechtenstein, and Tonga.

The ICOC is very loosely written compared to the MTCR, and therein lies the problem. Unlike the MTCR, the ICOC creates a distinction between space-launch vehicles and ballistic missiles. It has much weaker restraints on space-launch vehicles, even though they are interchangeable with ballistic missiles. That was necessary to make this a policy that a large number of nations such as Eritrea, Liechtenstein, and Tonga could accept. Unlike the MTCR, the ICOC prescribes no restraints whatsoever on cruise missiles. It is dedicated entirely to ballistic missiles, which is something that political people seem to think of when they think of missiles. Unlike the MTCR, the ICOC vaguely endorses “cooperative programs” that could actually lead to using ballistic missile programs as bargaining chips to secure other advantages.

Unlike the MTCR, the ICOC finds various ways to work with ballistic missile programs by having “programs of transparency.” There is some fear that these looser rules in the ICOC will lead some countries to venue-shop and say, well, maybe we haven't restrained ourselves according to the guidelines of the MTCR, but we have acted within the guidelines of the ICOC, so what's the problem?

The ICOC took something like four years to negotiate, about the same as the MTCR, and it diverted staff resources in countries where sometimes only one person works on missile, nuclear, chemical and biological nonproliferation. It diverted these resources from the business of export control.

In short, there is a question whether an approach like the ICOC has sacrificed nonproliferation policy in the name of cosmetic advantages. Now this question about cosmetics versus real nonproliferation becomes even more compelling when we look at the third alternative for moving along in the future, and that's a proposal that was promoted by Iran in the United Nations and is now taken up by some other governments and the United Nations staff to see if it's possible to negotiate a binding international treaty against missile proliferation, a sort of missile NPT.

I think we've already seen from the ICOC experience that bringing the haves and the have-nots together in some missile nonproliferation policy is going to result in some serious compromises. In fact, the history of these kinds of negotiations is that you almost invariably need a sweetener in order to bring the have-nots along, and most people who have proposed ballistic missile nonproliferation treaties have the identical idea about what the sweetener should be. The sweetener in their view should be the sharing of space-launch vehicle technology with countries that agree to forgo ballistic missiles. Not much of a nonproliferation policy. You are actually offering the rocket technology to the countries, the capability in return for a statement about intentions. Maybe not a good way to go, but one that is definitely in the hopper for the future.

The fourth approach has already been mentioned this morning, and that's the Proliferation Security Initiative, which was announced by the president less than a year ago. Under Secretary of State John Bolton will be in Russia this week, seeing if he can get the Russians to join this policy. It complements export controls very strongly by creating an environment in which, if you can somehow evade controls of exports and get the item you want on the high seas or in the air going toward you, it might just be intercepted anyway. So there's another barrier to

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acquiring missiles. Missiles, because of the large number of items they require, as we've already mentioned, do not require that every item be intercepted, just enough of them. Entire missile systems are of course so bulky that they are relatively easy to spot when they are in transit. So the Proliferation Security Initiative looks like a winner that is supported by all parts of the political spectrum and that very much complements our nonproliferation policy.

The fifth approach is the use of military forces to destroy missiles before they have been launched, so-called counter-force operations. Now this will always be a necessary part of our military planning, but it is difficult. General Habiger could talk about it with more knowledge than perhaps anyone else in this room, but just finding mobile missile systems is difficult enough. In a growing number of nations, such systems are not only difficult to find but they are deeply buried in tunnels and very difficult to destroy. The combination of deep burial and concealment is a daunting military problem and one that we will continue to work at, but not necessarily one that is guaranteed to be satisfactorily solved any time soon.

And the sixth and last alternative for dealing with the problem of missile proliferation is missile defense. What I'd like to do is contrast and compare the first and the sixth of these alternatives—missile nonproliferation, the MTCR on the one hand, and missile defense on the other hand. As Senator Biden said, missile defense is not a substitute for the difficult work of nonproliferation. But it may be—and he didn't say this, but I am—a complement to missile nonproliferation. In fact, many people from all parts of the political spectrum are coming to the point of view that missile defense and the MTCR may indeed be complementary. The president's NSPD—that's National Security Presidential Directive 23, issued last year—in fact said that missile defense and the MTCR are complementary.

Why are they complementary? Well, missile defense attempts to shoot at a missile in its boost, mid-course, and re-entry phase, while missile nonproliferation attempts to shoot at a missile in its research, development and production phase. They're all trying to stop the same thing. It's just that they're shooting at different points in the trajectory. This is indeed complementary.

There are other ways in which the two complement each other. If missile defense is likely to work—and that's always been a question—but if it is likely to be effective, it makes it less attractive to get in the business of developing missiles in the first place, very much complementing the efforts of the MTCR to stop development. On the other hand, if the MTCR is effective in slowing down or stopping the proliferation of missiles, it reduces the stress that missile defense systems face. So they really can complement each other.

The problem is that they can also compete with each other. Some missile defense systems are over that line that I talked about—the ability to deliver 500 kilograms to 300 kilometers—not the systems that are in use or in major development right now in most of the countries: the Patriot, the Medium Extended Air Defense (MEAD) system, which is being developed by the U.S. and Europe, most of the versions of the Russian S-300 system, or the Theater High Altitude Area Defense (THAAD) system. These are not over the line. But the Israeli Arrow system is over the line, and in fact has been originally demonstrated as a target missile simulating an offensive missile to be intercepted by another Arrow. The United States sea-launch system, the SM-3, is slightly over the line. The Ground-Based Interceptor, the large missile defense rockets that are to be based in Alaska and the Vandenberg Air Force Base are way over the line. The Kinetic Energy Interceptor, which is now in the design phase as late-generation United States missile defense system, has been described as a small ICBM.

So by sharing missile defense systems, we may be sharing very large rockets. These large rockets can be used offensively. For example, the SA-2, a large Soviet air defense missile, was adapted as an offensive missile by India, China, Iran, Iraq, and Serbia. In fact, one of the plans that was discovered to be the next step in Iraq's clandestine missile development program was to take the SA-2 engines, which were supposed to be limited to being used on missiles compliant with the United Nations' resolutions, and to adapt them to missiles along the Indian design or bigger, to enable them to reach ranges of up to 500 kilometers.

So missile defense rockets can pose problems. At the same time, the desire to share missile defense technology can pose problems for missile nonproliferation. NSPD-23 states that the United States should administer the MTCR so it does not impede missile defense cooperation. Well, what does this mean? Does this mean we should begin to fudge that line in order to spread missile defense interceptors? If we do, would we be able to construct another line, or will we just go to missile defense as an alternative to missile nonproliferation? This is an issue that the policymakers are going to have to grapple with in the very near future.

My suggestion is that there are many effective missile defense systems below the line that can be shared, and that in the future the major role of missile defense will be to defend very large areas. The Ground-Based Interceptor, from one site, could defend all of Europe. So many of the nations being defended will not have access to the rockets themselves. And in fact, there's no reason for the United States to even give up control of those rockets. We can operate the defensive system and unify the control of it with all the other missile defense systems in the world. It's militarily attractive, and it's certainly attractive from the point of view of nonproliferation.

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A last point about missile nonproliferation. I talked at the beginning about cruise missiles versus ballistic missiles. There is a serious terrorist threat that is emerging in the area of cruise missiles, and that is taking relatively small, cheap airplane kits, some of which you can buy over the Internet, and converting them by other kits to an unmanned air vehicle, or a remotely piloted vehicle, and using them to dispense such weapon agents as anthrax.

Cruise missiles are 10 times as efficient as ballistic missiles in delivering chemical or biological agents because they can pattern the delivery of them. This is a very serious threat, and to my mind it is the most serious threat combining the dangers of both terrorism and missile proliferation.

GENERAL EUGENE HABIGER: Catherine, did Richard go over his time?

MS. KELLEHER: Just a bit.

GEN. HABIGER: Well, that does not surprise me. Richard and I were classmates at the National War College and he used to do the same thing, and that was 20 years ago. Some things never change, right, Richard?

It's daunting to be up here with Richard and Matt. Richard and I and another Air Force colonel published a paper as a part of our end of year project at National War College; a classified paper on nuclear proliferation in the Middle East. Two things. We won an award and our names are imprinted forever in the rotunda on one of the pillars on a brass plate saying we wrote this awesome paper. And we were prophetic in that we predicted the evolution of nuclear weapons in Pakistan and India. The whole premise of our paper was what would happen to that region if nuclear weapons were introduced. That was the only time I've been clairvoyant. I hope to never do that again.

I want to talk about three things: the abolition of nuclear weapons, the current state of our war-fighting capabilities in nuclear weapons, and nuclear weapons strategy in the future.

My wise mother used to tell me, never say never. But in the case of the total elimination of nuclear weapons, in [my] view it's never going to happen. And that's unfortunate. We signed the [nuclear Nonproliferation Treaty (NPT)] in 1968. Article VI of that treaty is very, very clear: under certain conditions nuclear weapons will go away. Well, I don't think that's going to happen.

I think the window of opportunity we had as a world, as a universe, occurred in June, 1946, when President Truman sent Bernard Baruch to the United Nations with a proposal to the newly created United Nations Atomic Commission to do away with nuclear weapons, and then to put the enriched uranium and plutonium under international control. Unfortunately that was voted down by the Soviet Union, and I think that was the primary window of opportunity we had. The NPT is a good treaty. I think it's a good thing that we have it out there. But in my view we're not going to see the end of nuclear weapons, and that's unfortunate.

When I was a commander-in-chief, I had Paul Robinson, who was the former U.S. ambassador in the arms control arena and now runs the Sandia National Laboratories at Albuquerque, New Mexico, with a group of fellows and gals that advised me as the commander-in-chief in a group called the Strategic Advisory Group. It's been around for many years. I said, Paul, go out and look at the world from a war-fighting capability, where we have—and this was back in 1996—6,000 nuclear weapons and going down to some very low number. What are the things, what are the pitfalls, what are the stop lights, what are the green lights we have to consider?

And the bottom line that he came up with was that things change dramatically as you get to lower and lower levels of nuclear weapons in terms of their utility and the way they'd be used. We went away from the concept of wiping out each other's societies. Mutually assured destruction went away, fortunately. But as you get down to lower and lower levels of nuclear weapons, and again, I'm going to use the Soviet-Russia case, and I'll talk about that more in a minute—as you get down to a level, say, of around 1,000 or so you've got to go back to city-busting because you don't have enough weapons to have any military utility.

But the bottom line that came out of that study was the concept that a sudden appearance of a few nuclear weapons will cause only a minor blip on the radar screen in a world with several thousand nuclear weapons. But their appearance in a world without nuclear weapons would have profound effects. That's the bottom line. As you get down to lower and lower levels of nuclear weapons, the appearance—the sudden appearance, the sudden, unexpected appearance, whether through cheating or whatever, would have a profound effect.

As we get down to lower and lower levels of nuclear weapons, I would submit that we need to get into the multilateral mode. Virtually all of the discussions so far have been bilateral, the United States and the Russians. It's now time for us to get other nations involved as we get down to lower and lower levels. So I see a world at some point in the future to be at a few hundred nuclear weapons for the United States, for Russia, for China, and hopefully far less for other countries.

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Let's talk a little bit about the Cold War and our current status today. This is a rhetorical question. The question is, when did the Cold War start and when did it end? Well, it took the Department of Defense until the spring of 1999 to define that Cold War in terms of dates. And ladies and gentlemen, the official beginning of the Cold War was on September 2, 1945, and the official ending of the Cold War was December 26, 1991, when the Soviet Union finally began to crumble.

Now think about that, do the math, it's 46 years. That is the longest war we have ever fought. Now most of you would agree that World War I ended pretty much on a big happy note, 11th hour, 11th day, 11th month. You can picture in most of your minds pictures of those in Times Square as World War II ended. But how did the Cold War end? Was there a great celebration in the streets? Were the troops marching down Wall Street? None of that. It ended with a fizzle. And to put it in perspective, General Marshall, 18 months after Pearl Harbor, gathered a group of his smart folks in the Pentagon, at the War Department, and began planning for the post-World War II world. That's incredible.

Now here's a quote. "We didn't see the end of the Cold War coming. We saw the end of World War II coming and had prior planning. This time there was no planning. The problems we are now experiencing are a result of this lack of planning." This was stated by General Major Vladimir Dvorkin, the chief of the Scientific Research Institute, Ministry of Defense, in Russia, in 1994. And I would submit the United States hadn't done much planning about the end of the Cold War.

So when the Cold War ended, the loser really didn't lose. Think about that. Did we say, we won? Heck, no. Did we say, it is now time for you to disarm like we told the losers in World War I, World War II? No, we did not do that. And I would submit, this is part of the problem, the legacy that we're facing today in still having large numbers of nuclear weapons in U.S. and Russian stockpiles.

And I've been very critical publicly, and let me just put it in perspective for you. When I get up and speak publicly, I am apolitical. There's only one person in the universe knows my true political bent and that's my wife, Barbara, and we cancel each other's vote out every time we vote. But the point I would make to you is, both sides of the aisle have screwed this one up big time. Both sides of the aisle. As civilians you need to understand that the nuclear commander-in-chief doesn't operate in a vacuum, in spite of what you may have read. The nuclear commander-in-chief is given guidance, and that guidance starts at the White House, with presidential guidance, and the document is top secret. It's not very long. In a very macro sense it lays out what ought to be done with our nuclear weapons.

Then the civilians in the office of the Secretary of Defense publish something called the Nuclear Weapons Employment Plan and that further opens up the aperture in terms of more detail in the guidance. The military gets involved with the Joint Chiefs of Staff in the Pentagon, and that guidance is further elaborated and expanded upon, and then finally at Strategic Command that guidance is put into a nuclear war plan called the Single Integrated Operational Plan. But the first two layers are civilian.

Ladies and gentlemen, during my tenure as commander-in-chief of Strategic Command—this was a very, very frustrating experience for me—the guidance that I had for developing the Single Integrated Operational Plan as I arrived in 1996 was a document, a presidential decision directive signed by President Reagan in 1981. And the Cold War had been over since 1991. What's wrong with that picture? Now it took—and again, I'm beating up on everybody. It took the Clinton administration until 1997 to put out the next round of guidance. That is incredible.

I will also tell you that Congress needs to take a few, as I call them, face shots in this area, too. Now I was astounded when I assumed command of Strategic Command to discover that the United States Congress had mandated that I had to stay at artificially elevated START I nuclear weapons level until the Russians signed START II. Even though I didn't need them. I mean, it was terrible.

The Moscow Treaty that was signed is a good treaty. It's nothing new. It took the numbers that we had developed in STRATCOM [the U.S. Strategic Command] in late 1996, and I personally went over to the White House and briefed President Clinton on the numbers. So we went down from START II with just the 3,000-3,500 [deployed strategic warheads] proposal, and START III was to get us down to 2,000-2,500 [deployed strategic warheads]. The Moscow Treaty is basically the same numbers except under the counting rules, the weapons on submarines that were in longer-term rebuild—at any given time there are two of those submarines in rehab, and that lasts up to two years—those weapons were counted. And B-2 bombers and B-52 bombers were in long-range, long-term rehabilitation were also counted, and basically they changed the accounting rules [to not count the submarines and bombers in rehab] and that's how they got [down] to the 1,700-2,200 [warhead level]. And those are good numbers. But it's time for us to get down to lower levels.

I just want to make very, very clear the issue of the date on the Moscow Treaty—the fact that the new level, 1,700-2,200 weapons is not to be achieved until 2012. Ladies and gentlemen, that's 21 years after the end of the Cold War. What's wrong with that picture?

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Verification is one area that I'm concerned about. But the pendulum—as I looked at verification in the 1980's and 1990's, which was an onerous task, an onerous chore with lots of stupid rules—has swung completely to the other side, where there are no rules. And that needs to be looked at, but we have time to do that.

And I'll also tell you that one of the things that I'm most disappointed in both sides of the aisle is the fact that we have not stepped up to the control of tactical nuclear weapons. If you talk to the folks at CIA, they will tell you—they probably won't tell you—the range estimates for tactical nuclear weapons of the former Soviet Union and Russia range anywhere from 12,000 to 18,000. Tactical nuclear weapons. And no one has stepped up to account for the inventory of tactical nuclear weapons, both in Russia and the United States. That is unacceptable, in my view.

Let's talk a little bit about the role of nuclear weapons today and the strategy. Well, why do we have nuclear weapons today? Well, because the Cold War really didn't end, and both the United States and Russia have relatively large numbers of nuclear weapons. They're like two boxers ready to go after each other and neither of them wants to back away. Yet we're coming down, postures are easing. We need to do some things, and I'll talk a little bit about a RAND study here in a few minutes, to get away from the risk of accidental war with nuclear weapons. But because we started out at the end of the Cold War without disarming the Russians from a nuclear perspective, it's going to take us a long, long time, 21 years, to get down to lower and lower levels of nuclear weapons.

The nuclear weapons also serve as a deterrent against weapons of mass destruction. Not against transnational terrorist groups. You don't deter them with inventories of nuclear weapons. But because you have nation states out there with chemical and biological weapons, and Richard talked about the ability to deliver these weapons with systems that I call asymmetrical—relatively cheap, relatively without fingerprints on them if you want to make them that way. That's one of the reasons why we're going to require nuclear weapons. At the levels we have now? No. But we're going to require some.

And obviously we live in an entirely different world, and that's a simplistic statement. Things have changed, but we're in what I call a target-rich environment. One nuclear device can kill several millions of people because people live in small areas. I'm sure the South Koreans are concerned of the fact that 40 percent, over 14 million of South Korea's population, lives within 60 miles of the center of Seoul. That's what I call a target-rich environment. Whether you're talking about a nuclear device, nuclear weapon, or an anthrax attack.

An excellent study by RAND is *Beyond the Nuclear Shadow*. It talks about how we can defuse the accidental war issue with Russia. The question was asked earlier about new weapons. I think that's a terrible waste of money. To go out and spend upwards of \$10 billion for a weapon which has very, very little military utility does not make a lot of sense. In 1997 I accepted on behalf of the Department of Defense the first weapon to reach deeply buried targets. It was called the B-61, model 11. It was a B-61 bomb put in a case steel hardened container. It would go several meters under earth. It would not be a rock-buster, but in my view that's all we need. To go out and spend big bucks for a weapon that has very little utility doesn't make much sense.

I'd like to end on a positive note. I think we all ought to be pleased that in June of 2002 the G-8 global partnership pledged up to \$20 billion over the next 10 years for nonproliferation, disarmament, counter-terrorism and nuclear safety. If I would offer you up one request, it would be continue pressuring our government, both on the executive side and legislative side, to keep the pressure up so we make that program work because it makes sense and it's the right thing to do. Thanks very much.

MS. KELLEHER: We have about 25 minutes for questions now. If you would please come to the microphone and identify yourself, and the member of the panel to whom you'd like to address the question. Daryl.

Q: I'm Daryl Kimball. My question is for General Habiger. I wonder if you could clarify something you said which sounds somewhat contradictory. You argue that nuclear weapons are necessary to deter WMD, but you also say that new nuclear weapons—designed for deep bunkers or chem-bio targets—are unnecessary. Also, given your experience, can you describe any reasonable circumstance under which an American president might actually use a nuclear weapon?

GEN. HABIGER: We are spending billions of dollars a year for something called a science-based stockpile stewardship. An outside commission looks at it every year. Department of Energy and Department of Defense look at it every year to make sure that our nuclear stockpile that we have on board today is safe, reliable, and functional. This is part of the overall strategy for getting away from nuclear testing, which the current administration has walked away from.

We have nuclear weapons that can do very low-yield. I spent most of my career as a junior officer, lieutenant,

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captain, major, sitting on alert seven days at a time in an underground bunker with a B-52 loaded with four to six nuclear weapons. Unless you've done that and sat and thought about the klaxon going off—oh, by the way, the klaxon went off at least twice a week; you didn't know if it was the real thing or an exercise. You ran out to your plane. You think a lot about killing millions of people. You worry about your family that are left behind. So I've thought a lot about this. My point is God help us if we ever develop a nuclear weapon that looks attractive to use. That's the path we're going with this initiative to build a nuclear weapon that perhaps would be attractive to use.

And the second part of your question, having to do with could I think of any circumstances. I could probably come up with a circumstance but I think it would be very unrealistic. I'll give you one circumstance. The North Koreans launch an ICBM that strikes Los Angeles with a nuclear warhead on board, and kills millions of people. That might be a circumstance. But that would be the most incredibly stupid thing for the North Koreans to do. If I was Kim Jong Il's advisor, I'd say, "why are you going to do that?" Senator Biden said there's going to be a postage stamp because we have systems in space today that can show within tens of seconds and tens of meters where a missile is coming from. Tens of seconds, tens of meters. That doesn't make any sense, but that's one scenario. Kim Jong Il, you just bought the farm.

I like Richard's scenario much better. We're using systems that don't have postage stamps where you can do lots of damage.

Q: Greg Thielmann, former State Department. My question is for Richard Speier. I was surprised to hear you say that you thought the MTCR and ballistic missile defense were complementary.

MS. KELLEHER: I think he said, "could be."

Q: Could be. If one thinks back to the Cold War, we know how the U.S. reacted to the Moscow ABM system, or how the Soviets reacted to the prospect the U.S. might pursue SDI in terms of making sure that their offensive systems could counter that system. When I looked at Pakistani reactions to Russian help for Indian ATBM efforts, or Chinese reaction to Taiwan ballistic missile defense improvements, I don't see that dynamic you're talking about that could happen. Could you give me two or three examples of opponents where you think when one side sees the other developing ballistic missile defenses, they'll decide, well, let's get out of the ballistic missile business?

MR. SPEIER: Let's talk about the objectives of missile nonproliferation. They are to increase the cost, schedule, and unreliability of missile development programs. If on top of that you can increase the unreliability that a missile successfully launched will successfully destroy its target, you are adding to the dubious quality of a missile program, and that's complementary.

The missile technology control regime has had some major successes. It's had some well-publicized failures. I mean, certainly India, Pakistan, Iran, North Korea had some spectacular missile tests, but other missile programs were stopped—Argentina, Brazil, South Africa, and missile programs were rolled back in Eastern Europe. Quiet successes were made in preventing sophistication from getting into some of the missile programs that we saw. By preventing sophistication from getting into these missile programs, we make them much more vulnerable to missile defenses. So missile defenses help missile nonproliferation. Missile nonproliferation helps missile defenses.

MS. KELLEHER: Next question, please.

Q: I'm Howard Hallman of Methodists United for Peace and Justice. This morning your rules allowed comments from the floor and I'd like to make a brief comment. It's been a very interesting discussion today about the technicalities of arms control, nuclear weapons, politics, strategies, and military strategy. There's a dimension that's been missing, however, and that's the moral dimension. Nuclear weapons are inherently immoral. They kill innocent people, they ruin the environment, they're the ultimate evil. Even deterrence is immoral because you're holding hostage innocent people for military and foreign policy.

Therefore, I would urge all of you folks in the Arms Control Association to add the moral dimension to your discussion because it's a very important one which should not be overlooked.

MS. KELLEHER: Next question, please.

Q: I'm Kathy Crandall with the Union of Concerned Scientists and my question is for Matt Bunn. You mentioned on tactical nuclear weapons something like a presidential nuclear initiative with monitoring, and I

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wonder if you could say a bit more about that. And what would work particularly if we continue to retain nuclear weapons deployed in Europe as part of NATO.

MS. KELLEHER: I wonder if I could use the privilege of the chair also to include General Habiger also, since he also made a point of this in his comments.

MR. BUNN: Well, first on the tactical nuclear weapons. First of all, we ought to focus on the most dangerous weapons. To my mind, the big distinction is not between tactical and strategic. The big distinction is, is it equipped with something that's going to make it extremely, extremely difficult for somebody who doesn't have help from within that weapons program to figure out how to set that sucker up, or is it not? So all the ones that still exist, where the answer to that is, you know, no, we only have an old cruddy lock on this that would be relatively easily bypassed if they had intelligent people working on it. Those, in my judgment, are basically too dangerous to be allowed to exist.

If you allowed each side essentially to choose which weapons were going to be put in these monitored stocks, the U.S. would probably [choose] subtacticals but a good chunk of strategics that we don't really need any more. On the Russian side it might be mainly tacticals. But you want to have each side make at least an unverified commitment that all the weapons that raise this concern would be in this category. So you put them in the storage sites that already exist, but you have areas of those storage sites that would then be open to monitors from the other side so people could come, look, see that they're there, count how many are there, observe the security arrangements as Gen. Habiger did at one site in Russia years ago—actually a couple, if memory serves.

That would be a very immense improvement in our security; just getting them under essentially jointly monitored lock and key. Then the next step would be committing that they be verifiably dismantled. If we had then eliminated this problem of those weapons that are too dangerous to be allowed to exist, we could then go to other states and say, "if you have anything like that, you ought to dismantle it as well." Or many countries, like Pakistan for example, are believed to store the individual components separately. I would argue that's just as good as the kinds of electronic locks that we do. So it seems to me a relatively simple and fairly compelling initiative.

There is an amazing place about an hour and a half drive out of Moscow called the Institute of Physics and Power Engineering, in a town called Obninsk. They have 75,000 disks made of either weapon-grade highly-enriched uranium or plutonium, and if it were plutonium, about 80 or 100 of them would be enough for a bomb. You can put about 20 of them at a shot in your pocket.

When we first started the cooperative effort with Russia, none of these had any labels on them. There was no detector at the door of the building where they were stored to set off an alarm if somebody were carrying them out in their briefcase or in their pocket or what-have-you. There wasn't much of a fence around the overall facility. Now every single one of them has a bar code, although technology being what it is and people messing things up the way they do, now all the bar codes are rubbing off and now we're having a big problem with trying to figure out what kind of new bar codes should be put on them.

They're all stored in a big vault. I don't recommend visiting that particular vault. It's hot as a pistol in there. I remember when I visited it, they said, we really ought to give you the briefing while we're still standing outside the vault door because as soon as they opened the vault door, their little radiation meter just pegged right over into the red zone.

But let me just tell you a distressing story about that, which to me sort of sums up safety culture at Russian facilities, security culture, and also the amazing degree of sexism in the Russian nuclear establishment. I was visiting this particular facility and getting a tour of the new security arrangements that we helped install and I noticed as we were going in toward the vault that we had to pass through not one but two of these nuclear material detectors in the hallway. I said, get out of here. What's the story? Why do you need two nuclear detectors? One of them had American company markings on it, the other had the Cyrillic markings from a Russian company.

They said the building next door makes medical isotopes. Every Thursday they do the chemical separations to separate out the isotopes they actually want from all the radioactive junk that they end up making in the reactor when they irradiate the stuff to make the isotope. So much radioactivity goes right up the stack that the American-made monitor goes up in this building next door. He said, it shrieks like a woman every Thursday. So they turn off the American monitor on Thursdays and rely on the less sensitive Russian monitor.

Of course, every insider at that facility knows which day of the week the American monitor is turned off.

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This kind of thing is endemic in Russia and it's a serious problem. So it's not just a matter of getting good technology installed. It's also a matter of changing the way people think and the way people sort of do their business day in and day out.

There's really three things that we have to do. We have to get good security equipment put in place. We've got to ensure that that security will be sustained over the long haul, both in terms of maintaining the equipment and in terms of the security culture. And we've got to make sure that the kinds of things we put in place are sufficient to deal with the threat that exists today. If you have a country where 40 heavily armed terrorists seize a theater then putting in place a defensive system against three heavily armed terrorists is not good enough. Getting it done fast, getting it done sustainably, and getting it done to a high enough standard are the three goals that I think we need to achieve.

MS. KELLEHER: Gene, do you want to add a postscript?

GEN. HABIGER: Very quickly to add a comment about tactical nuclear weapons. That's one area that's been a success story on the operational side. On the inventory side, still flunk. But on the operational side—Bush and Gorbachev made a very profound agreement to take tactical nuclear weapons off surface ships and submarines. That was a big step forward. Surface tactical nuclear missiles are for all practical purposes not operational any more.

And let me just say that the Russians are as serious about their people who deal with nuclear weapons—military people who do nuclear weapons—as we are in terms of their training.

MS. KELLEHER: I'm going to take the last two questions and fold them together so the panel can answer them. Phil?

Q: I'm Phil Coyle, Center for Defense Information. My question is really for General Habiger. There are those who say that the nature of the current U.S. nuclear stockpile is such that it's becoming harder and harder to believe that a U.S. president would actually use it, and to the extent that that's true, we don't have a deterrent. Therefore, we need specialized nuclear weapons, perhaps much smaller nuclear weapons—the Defense Science Board has been looking at this—so that we will have a credible deterrent. I'd just like you to comment about that.

MS. KELLEHER: Thank you. Next question, please.

Q: Thank you. Mary Beth Nikitin from CSIS. I just wanted to ask you the rhetorical sort of question, refrain, why aren't we doing it now as far as preventing a terrorist attack. And also in terms of actually coming to agreement on tactical and nuclear arms control. In particular, if Professor Bunn and General Habiger could talk about whether you think these obstacles are at a nuts and bolts level—the bureaucratic obstacles or getting legal agreements—or it is sort of an ideological mistrust level question as Senator Biden implied at the lunch address. Do you think anything can happen in an election year? Thank you.

MS. KELLEHER: A lot to answer and not much time.

GEN. HABIGER: First, I would, with all due respect, disagree with your basic assumption that it's no longer a credible deterrent. Any time you have the capability to deliver a nuclear weapon of relatively small yield anywhere in the world in a relatively short period of time that should be a deterrent because that's a pretty big baseball bat you've got. And it gets back to my earlier point that God help us if we ever develop nuclear weapons that are attractive to use. That's the wrong way we ought to be going.

In the tactical nuclear arena, let me just say this. If you talk to people in the White House who are involved in why we can't get the inventory [accounting] going, why we can't get any progress here, they will put the ball in the Russians' court. My criticism of the current administration and previous administration was, let's start playing hardball and getting serious and telling them that it's time to get on with the tactical nuclear weapons side of the equation.

MR. BUNN: And offering some incentives, both positive and negative. On transparency and stockpiles we've basically said "do this because American arms controllers kind of think it's neat." And that's not been a very convincing argument for overcoming decades of Communist secrecy and centuries of czarist secrecy

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before that, which would be a lot of hard political heavy lifting in Russia. So we need to make it enough in Russia's interest to motivate people to do that kind of hard political heavy lifting.

On what's stopping things from going faster, I wish I knew. At the moment we appear to have presidents in both countries who are genuinely concerned about terrorists getting weapons of mass destruction. I believe that in both cases we have presidents who think that that's probably only likely to happen if a hostile state actually gives it to them. Therefore, the policy prescription is, take on the hostile state. Take on Iraq as being a leading example for Bush.

That is the less likely of the possible ways that terrorists could get weapons of mass destruction. I think the much more likely way, in the case of nuclear weapons at least, is this nuclear material that's inadequately secured. I think if President Bush and President Putin, (a), understood (audio break, tape change)....are operating in good faith and they wouldn't take the actions if they saw the opportunities available to them and saw the urgency of the need. The agenda for us is trying to convince those two individuals or whoever ends up in those slots in the future that this is a big threat and there's a lot they can do about it.

MS. KELLEHER: I know there are many more questions. Richard, just a very small comment, please.

MR. SPEIER: I think your question about why not now is a very good one, and as someone who worked for over a decade on nuclear nonproliferation before getting into missiles, the fact is that all the plans now for getting rid of excess nuclear materials will take many, many decades—50, 70, 90 years. It's very frustrating. In the mid-1990s some RAND colleagues and I proposed an approach where we would take excess nuclear material out of the U.S. and Russia and put it under international physical security custody in a third country.

This was similar to an approach that was of interest to the Joint Staff in the early 1990s. It was written about very favorably by Jessica Mathews in the *Washington Post*. She mentioned a country that we had suggested as the repository for this material. The country suggested that they'd be interested in negotiating it, but it never went anywhere. There are many reasons, but one is that we are now so fully committed to this path of 50, 70, or 90 years to really get rid of this material. It's a shame that we can't step back and look at much quicker ways to take this material out of harm's way.

PANEL BIOGRAPHIES

CHAIR • Catherine Kelleher

Dr. Catherine Kelleher is a Research Professor at the U.S. Naval War College and Acting Editor of the *Naval War College Review*. An ACA Board Member, Dr. Kelleher has served as the Personal Representative of the Secretary of Defense in Europe and Deputy Assistant Secretary of Defense for Russia, Ukraine, and Eurasia. She also worked on the National Security Council staff during the Carter administration and consulted for the Department of the Army, the Arms Control and Disarmament Agency, and the Office of the Assistant Secretary of Defense for International Affairs. In the private sector, Dr. Kelleher directed the Aspen Institute and founded the non-government Women in International Security.

THE ROLE OF NUCLEAR WEAPONS IN U.S. SECURITY POLICY • General Eugene Habiger

Currently the President and Executive Officer of the San Antonio Water System, General Eugene Habiger formerly served as Commander in Chief of the U.S. Strategic Command, where he was responsible for U.S. strategic nuclear forces. A former pilot who flew 150 combat missions during the Vietnam War, General Habiger spent 35 years in military and government service. Among other positions, he was the Director of Security and Emergency Operations at the Department of Energy. In that capacity, General Habiger oversaw safeguards and security policy for the U.S. nuclear weapons complex.

DENYING NUCLEAR WEAPONS TO TERRORISTS • Matthew Bunn

Author of *Preventing Nuclear Terrorism*, Matthew Bunn is a Senior Research Associate in the Project on Managing the Atom in the Belfer Center for Science and International Affairs at Harvard University's John F. Kennedy School of Government. An ACA Board Member, Mr. Bunn has held several positions pertaining to controlling the threats posed by stockpiles of nuclear materials and warheads. He is a consultant to the Nuclear Threat Initiative, has served as an adviser to the president's Office of Science and Technology Policy, and directed a two-volume study on controlling excess weapons plutonium for the National Academy of Sciences. A prolific writer on nuclear security issues, Mr. Bunn most recently co-authored *The Economics of Reprocessing vs. Direct Disposal of Spent Nuclear Fuel*.

STEMMING MISSILE PROLIFERATION • Richard Speier

Currently a private consultant on nonproliferation and counter-proliferation issues, Dr. Richard Speier spent more than 20 years in government at the Office of Management and Budget, the Arms Control and Disarmament Agency, and the Office of the Secretary of Defense. While in government, he helped negotiate the Missile Technology Control Regime (MTCR) and draft the terms for Iraq's eventual disarmament. Awarded the Defense Department's Meritorious Civilian Service Medal, Dr. Speier is now preparing a full history of the MTCR.

CLOSING ADDRESS

Senator Jack Reed

DARYL KIMBALL: I am pleased to introduce to you Senator Jack Reed of Rhode Island. He is the ranking Democrat on the Armed Services Committee's Strategic Forces Subcommittee, among other key posts. He is one of the key leaders on the issues that we've been discussing today. As a member of that committee he is in the rough-and-tumble on the policy debates—the defense authorization bill really debates on these issues. He's agreed to share with us his perspectives on the role of arms control in building U.S. national security in the future.

He is, in my view, one of the most informed and active members in the Senate on these issues. He has been a stalwart defender of our first line of defense, proven preventative arms control strategies, at a time when there are those, as we've heard earlier today, in the administration who are not so enamored of these approaches, and at a time when we're seeing these approaches being undercut in various ways.

I just want to note in particular something that he did last year, which is particularly important and will continue to be an issue in the years ahead. He was pivotal in the debate concerning the future research on U.S. nuclear weapons. He introduced a very important amendment on the floor of the Senate that I think would have been approved if it was allowed to be voted on directly, but it was second-degreed by the chairman of the Armed Services Committee, Senator [John] Warner. And his amendment would have essentially preserved the 1994 ban on research leading to the development of low-yield nuclear weapons. And though that vote was narrowly lost, I know from hearing him, his speeches, and talking to his staff that he's going to remain a dedicated and outspoken proponent of rational policies on this particular topic.

And I just want to quote for you something that you said, Senator Reed, after that debate. I don't know if you remember, but I thought it was a very important statement at that stage and a very relevant statement for our conference today. You said on the floor on September 16th that "After 50 years of being the leading nation in the world arguing for arms control, arguing for sensible constraints on the development of nuclear weapons and the limits on nuclear weapons, we have become a nation that is casual about our commitment to arms control, that denigrates it too often, and that course has left us with other options which I think are less appropriate. If there is no arms control, then there is a higher probability of arms usage with nuclear weapons. This is a thought that no one wants to contemplate."

I think these are very important words as we go into the 21st century, and I'm pleased to introduce Senator Jack Reed.

SENATOR JACK REED (D-RI): Thank you very much, Daryl, for those very kind words of introduction. I'd like to recognize of course Daryl but also John Steinbruner of the Arms Control Association. Professor Steinbruner was a young professor when I was a young but very unprecocious student at the Kennedy School of Government, so it's nice to join him again. I'd also recognize Robert Gallucci, the dean of Georgetown University's Edmund A. Walsh School of Foreign Service, and Michael Brown, the director of the Center for Peace and Security Studies. And a special word about Paul Warnke, who devoted his life to diplomacy, who was a tireless advocate and practitioner of arms control, and in whose honor and memory this conference is being held.

In 1946, in a speech to the governing board of the Pan-American Union, President Harry Truman, the only person ever to authorize the use of nuclear weapons, said, "Before us now lies a new era in which the power of atomic energy has been released. That age will either be one of complete devastation or one in which new sources of

power will lighten the labors of mankind and increase the standards of living all over the world.”

For more than 50 years, the United States has been in the vanguard in ensuring that President Truman’s first alternative never becomes a reality. The United States has both urged and acted to de-legitimize the use of nuclear weapons and other weapons of mass destruction through the earliest Strategic Arms Limitation Talks, the Intermediate Nuclear Forces Treaty, the nuclear Nonproliferation Treaty, presidential nuclear reduction initiatives, the Strategic Arms Reduction Talks, various nuclear weapons testing limitation treaties, and bilateral diplomatic efforts to encourage other states to forswear nuclear weapons. The United States, under both Democratic and Republican administrations, has worked to reduce the possibility of devastation.

Today, however, the Bush administration is implementing a departure from this decades-long bipartisan policy of arms control and risk reduction. President [George W.] Bush has neither reduced the size of the U.S. nuclear weapons arsenal, nor decreased the nation’s reliance on nuclear weapons. Instead, he has pushed Congress to adopt measures that may actually lower the threshold for the use of nuclear weapons. These new nuclear weapons policies are being implemented as part of a broader national security strategy that increasingly relies on pre-emptive military action to compel states concerned not to pursue weapons of mass destruction. Moreover, the Bush administration has not substantially increased efforts to reduce the risk associated with the former Soviet Union’s Cold War weapons and material. On the contrary, the Bush administration initially cut these programs. Recognizing their importance, Congress restored the funding, but notwithstanding statements of support for these programs, the president has failed in his budget to fund these programs at levels commensurate with their importance.

The administration is pursuing an agenda which promotes nuclear weapons during a time when the need to de-legitimize and stop the proliferation of nuclear weapons and weapons-related technologies is as important as ever. Revelations about the capabilities of the Iraqi nuclear program prior to the 1991 Gulf War, the North Korean, Iranian, and Libyan nuclear programs, as well as the Indian and Pakistani nuclear tests of 1998, have demonstrated that nuclear weapons remain highly sought after.

In practical terms, however, North Korean and other tough WMD proliferation cases defy quick military solutions. Military pre-emption alone cannot replace a comprehensive and preventive arms control and nonproliferation strategy. Nonproliferation rules and standards of behavior establish the legal, political, and moral basis for organizing U.S. and international pressure to prevent the spread of nuclear weapons and nuclear materials to states or to terrorist groups. New proliferation dangers and changing threats to our national security continue to require nonproliferation strategies. These strategies must change as the threats change to remain effective.

Changing, strengthening, and adapting, not abandoning, preventive diplomacy in arms control should remain at the heart of U.S. national security policy. The Bush administration, however, has set a different course. It has clearly shown its distaste for treaties. Administration officials may argue that it did conclude the Moscow Treaty with Russia. Unfortunately, this treaty is arms control in name only. It does not actually require the elimination of any nuclear weapon. There is no timetable for compliance, no definition of deployment, and it does not provide for additional verification mechanisms. Under the Moscow Treaty, the reductions in deployed nuclear weapons do not have to be achieved until December 31, 2012, and can be fully reversed on January 1, 2013. The Moscow treaty is not an effective adaptation of arms control. The trend toward abandoning, not adapting, arms control is evident in the administration’s passive neglect of treaties and in its aggressive actions to revitalize the role of nuclear weapons.

In December of 2001, the Bush administration completed its Nuclear Posture Review [NPR]. The NPR supported budget requests to fund the production of hundreds of new plutonium pits per year—a necessary component of a nuclear weapon—to support the design of new weapons, and to shorten the time necessary to plan and conduct a nuclear test. These initiatives strongly suggest that the resumption of nuclear weapons testing is the desired goal, not as the last resort to maintain the existing stockpile—as contemplated under the Comprehensive Test Ban Treaty—but to support the development of new, smaller, or otherwise more usable nuclear weapons.

The NPR also indicates for the first time that the United States is prepared to use nuclear weapons against non-nuclear nations that are not aligned with a nuclear power, including the possibility of first-use and a preemptive strike. The Bush nuclear posture review combines and thus blurs the traditional distinction between nuclear and non-nuclear offensive strikes. Instead of deterring an attack by a nuclear power—the Cold War deterrence approach—the Bush NPR makes nuclear weapons just one more tool in our toolkit, one more option to exercise.

The president’s intentions became clearer in September 2002 when the president issued his national security strategy and in December 2002 when he issued his strategy to combat weapons of mass destruction. Each document lays out a clear strategy of preemption as an option regardless of the immediacy of the threat. These documents, coupled with the administration’s budget request, set forth the administration’s desire to have a nuclear weapon that could be used in a first-strike preemptive fashion against a non-nuclear or a nuclear state.

In the fiscal year 2003 budget request, the administration proposed to begin a three-year effort design a robust nuclear earth penetrator, RNEP, to use against hard and deeply buried targets. The RNEP would modify an existing large-yield nuclear device to penetrate a hard surface, such as rock, survive, and then detonate. Senate Democrats were able to delay spending money on the RNEP for six months by requiring a report identifying the types of targets that this weapon is designed to hold at risk and the employment policy for such an RNEP. Notwithstanding the fact that there is no clear military requirement for an RNEP, the administration is forging ahead. In its fiscal year 2004 budget request, the administration proposed a second year of funding for the RNEP.

Also integral to the administration's strategy of preemption is the desire for new precision small nuclear weapons with yields of less than five kilotons. The administration's first step towards this goal was to propose the repeal of Section 3136 of the National Defense Authorization Act for fiscal year 1994, which prohibits the secretary of Energy from conducting any research and development which could lead to the production by the United States of new low-yield nuclear weapons including a precision low-yield warhead.

In 2003 testimony before the Senate Armed Services Committee, Ambassador Linton Brooks, acting director of the National Nuclear Security Administration, did not suggest that the new nuclear weapons work is needed to meet a new military requirement. Instead, he argued that, in his words, "We are seeking to free ourselves from intellectual prohibitions against exploring a full range of technical options." Pressed further, Brooks provided a more telling explanation of the administration's motives, saying, "I have a bias in favor of something that is the minimum destruction. That means I have a bias in favor of things that might be usable." Despite strong Democratic opposition, the ban was repealed and \$6 million was authorized for this research. Proponents of this new nuclear policy, with its bias in favor of things that are usable, argue that arms control and nonproliferation have failed and therefore new nuclear weapons, concepts, and weapons are needed. They cite a litany of states that have acquired nuclear weapons since the adoption of the [nuclear Nonproliferation Treaty] NPT in 1968: India, Israel, Pakistan, South Africa, and apparently North Korea.

Arms control and nonproliferation strategies, however, succeeded in ensuring that far fewer states acquired nuclear weapons and established a global norm against the possession and use of nuclear weapons. Forty years ago, when the original nuclear powers—the United States, the Soviet Union, Britain, France, and China—had a monopoly on nuclear weapons, it was routinely assumed that proliferation would be rapid and irreversible. President Kennedy predicted in the early 1960s that an additional 25 countries might develop nuclear weapons within 10 years. This dire prediction did not come true because of efforts at arm control exemplified by the NPT. Moreover, of the five states that have acquired nuclear weapons since 1968, three—Israel, India, and Pakistan—never signed onto the NPT. South Africa gave up its nuclear weapons and joined the regime as a non-possessor state. That leaves the very special case of North Korea, which joined the NPT in 1985 and has been caught on at least two occasions violating its obligations before its announced repudiation of the treaty.

Critics of the nonproliferation regime frequently fail also to acknowledge that Argentina, Brazil, South Korea, and Taiwan cease their suspected nuclear programs in part because of the international norms represented by the NPT. Similarly, with the demise of the Soviet Union, the newly independent states of Belarus, Kazakhstan, and Ukraine, found themselves in possession of nuclear weapons. All of them voluntarily relinquished their weapons in favor of joining the NPT. Their decision, at the urging of the United States and others, reaffirmed the norm of nonproliferation. At the time, Ukraine and Kazakhstan were respectively the third and fourth largest nuclear powers in the world.

Despite its successes, however, the arms control regime is under stress. Today, nonproliferation is being advocated by the United States as do what I say, not do what I do. Unfortunately, the United States is more often imitated rather than obeyed. The goals of the nuclear posture review, the national security strategy, and the national strategy to combat weapons of mass destruction are reflected in congressional action authorizing new nuclear weapons research and repealing the ban on low-yield nuclear weapons research.

Unfortunately, these policies and actions will begin to take the United States in a dangerous new direction that marks a major shift in American policy, which is inconsistent with our long-standing commitment under the nuclear Nonproliferation Treaty to end the nuclear arms race, and which makes a mockery of our argument to other countries around the world that they should not develop or test nuclear weapons.

The Bush administration, through a series of actions taken over the past three years, is quietly moving to change the longstanding bipartisan consensus on nuclear weapons to make nuclear weapons more usable and to see them as just another option, or as a May 2003 article by Bill Keller in the *New York Times Magazine* suggests to make the unthinkable thinkable.

The United States must reverse the course we now seem to be taking. Our nation must pursue comprehensive and practical efforts to deal with the shortcomings and unfinished parts of the global nuclear, chemical, and biological weapons arms control regime in order to adapt to the new threats and the new technologies of the post-

Cold War world. Let us expand and improve arms control, not condemn it.

In the coming years, the president and the Congress should work to build a more comprehensive approach to the evolving problem of nuclear, chemical, and biological weapons proliferation. These efforts should draw from existing programs and activities, reinforce and expand bilateral and global arms control measures, and be pursued in collaboration with the United States' allies and friends through the United Nations and other bilateral and multilateral mechanisms.

We must improve international weapons monitoring and inspection capabilities which would aid U.S. intelligence and can help detect and deter cheaters, encourage compliance, and galvanize support for U.S.-led collective acts to deal with violators that pose a threat to international security. International actions are effective. Evidence of North Korea's illicit nuclear weapons work was discovered in 1992 as a result of that country joining the nuclear Nonproliferation Treaty and agreeing to International Atomic Energy Agency (IAEA) inspections.

The dangerous extent of Iran's nuclear program has recently been revealed through a new round of international inspections. Special IAEA inspections in Iraq following the first Gulf war effectively ended that nation's illicit nuclear weapons program by 1998. The IAEA Additional Protocol recently submitted to the Senate for consideration would allow for more extensive inspections and is an important next step to strengthen international capabilities. I commend the administration for supporting this Additional Protocol. The Senate will begin considering it with a hearing before the Foreign Relations Committee tomorrow. I look forward to working with my colleagues to ratify this important protocol.

We must expand and accelerate Nunn-Lugar threat reduction programs. In place for just over 10 years, the Nunn-Lugar initiatives have helped make the United States and the world safer by improving security and dismantling much of the Soviet-era nuclear, chemical, and biological weapons arsenals and infrastructure. More still needs to be done. We can and should accelerate and expand, wherever possible, this vital effort to keep these weapons, materials, and technologies out of the hands of terrorists and criminals.

While construction has started on the facility to eliminate the 40,000 metric-ton stockpile of Russian chemical weapons, assistance will be needed until this project is finished and all chemical weapons are destroyed. Russian and other former Soviet Union biological weapons research facilities and personnel must be converted into non-defense programs. Russia's sprawling nuclear infrastructure remains vulnerable with only half of the facilities fully equipped with modern security systems to prevent theft or diversion of weapons and materials.

As the ranking member of the Emerging Threat Subcommittee of the Armed Services Committee, I plan to work with the administration and my colleagues to increase our current investment of roughly \$1 billion per year in these programs and to eliminate unnecessary congressional restrictions that threaten the continuation of contracts on important projects.

We must achieve a global halt to the production and proliferation of weapons usable fissile materials. For years, progress on multilateral negotiations to end the supply of new material for nuclear bombs through a fissile material cutoff treaty has been stalled. Now, a shift in China's position opens the way for progress. Unfortunately, the Bush administration has decided to reevaluate its support for such an agreement. Instead, it should take the initiative and move forward to conclude such a treaty. In addition, the administration should move forward on its idea of creating an inventory of the world's fissile materials in assessing the risk of proliferation. I plan on working with my colleagues on a similar initiative in the Congress.

We must pursue new restrictions on access to nuclear weapons' applicable fuel cycle technologies to make it more difficult for new states to obtain nuclear material for weapons. The NPT guarantee of access to peaceful nuclear technology and the broad diffusion of that technology has allowed states such as Iran to acquire uranium enrichment or plutonium production facilities useful for weapons. Through more robust international export control agreements, the availability of the most weapons-relevant technologies can be limited without denying access to basic and legitimate nuclear power technology. I do commend the administration for establishing the Proliferation Security Initiative, which will seek to detect and control the export and import of weapons, weapons material, and weapons technology while respecting international and domestic law.

We must engage in discussions with states that seek nuclear weapons to look for ways to bring such states into the community of responsible nations. The Bush administration's refusal to resume bilateral talks with North Korea in 2001 and its tough talk and hesitancy to resume discussions after North Korea took deplorable and dangerous actions to revive its plutonium production program have allowed a dangerous situation to fester. The administration has made some progress toward reengaging the North Korean regime through six-party talks, but it is not clear whether it has developed an effective or clear negotiation strategy.

Finally, the United States and other nuclear-weapon states must reduce the role of nuclear weapons in our own security policies. The United States in particular must lead by example and not engage in a "do as I say, not as I do" philosophy. Toward this end, the United States should maintain its nuclear test moratorium and reconsider

ratification of the 1996 Comprehensive Test Ban Treaty. It should engage Russia in further talks to accelerate strategic nuclear reductions and verifiably dismantle excess nuclear weapons stockpiles, as well as pursue talks that lead to the verifiable dismantlement of the thousands of tactical nuclear weapons remaining in Russia.

Today's threats require a strong and nimble conventional military capability and not the development of new or modified types of nuclear weapons designed to be used preemptively. The consequences of the detonation of a nuclear weapon, or other weapons of mass destruction, are so devastating that reliance on military means alone to deter or preempt such an event is shortsighted. Abandoning serious efforts at arms control will weaken, not strengthen, our efforts to protect the nation and our allies from the development of nuclear weapons by others. Only commitment and leadership to advance a comprehensive arms control regime can provide the security which we all seek.

Thanks very much.

MR. KIMBALL: Senator Reed has agreed to take a few questions. He has time for maybe two or three, perhaps more—we'll see. If you could line up as we have all day, and beginning on the right.

Q: Yes. Senator, Senator Biden was telling us at lunch how very difficult it is these days to get the Senate to focus on issues that it thinks important, or at least he thinks important. One he mentioned in particular was getting the Senate to look seriously at whether it was the administration's failure to look at the intelligence or the intelligence itself that was faulty before the war in Iraq. You've laid out a broad agenda which Senator Biden said is no longer on the front pages and only senators and representatives or the president can get it on the front pages. It seems very difficult in the minority to get the hearings or the GAO reports that you usually use to advance this agenda.

If that continues to be the case, would you consider taking it out on the road and having fora other than formal hearing structures to put these issues back on the agenda again.

SEN. REED: Well, I agree with Joe's analysis that these issues are not getting the attention they need because we are preoccupied with some immediate problems, Iraq being the principle international security problem. And frankly, I think we have to get these issues back in play, back in the forefront, and whether we can do it in Washington or do it on the road, we should do it everywhere. In many cases it's not that we're not speaking up and debating, it's that we're not catching the attention of the media and then consequently the community at large. We have to be a little more effective doing that.

It certainly would help us if we were in the majority to get our program across. It would help in many ways too if we were in the majority but, you know, I'm not averse to going out and speaking. And I'm struck sometimes by our focus and preoccupation in Washington. I think among groups around the country there is discussion of these issues.

I think—and I don't want to do an instant analysis of the primary election, but there seems to be a sizable group of individuals who are registering their displeasure about policies. I'm struck by the fact that New Hampshire was the state the president carried. New Hampshire is also a state in which independents vote in Democratic primaries. In fact, exit polls actually identified Republicans, self-declared Republicans, saying they voted in the primary. So I think this is beginning to build up. But you're right; it's not getting the kind of attention we need.

This question might be segue to in terms of the issue of Iraq intelligence because Dr. [David] Kay was before the Armed Services Committee today and I had a chance to ask him a few questions, and my colleagues had a chance to ask him a few questions. His testimony today was consistent with his service to the country. He's a very dedicated, patriotic individual of great integrity and he was, I think, trying to be as candid and forthright as anyone could be there. He clearly indicated that from his perspective there are no weapons of mass destruction, no large stockpiles. There were none before the war. The supposed vans that Vice President Cheney talks about were likely used for the production of hydrogen, not for biological weapons. But on the other side, he indicated that he probably would likely have made the same judgments given the information he saw.

But what comes out of that testimony today is, if not a direct, certainly an indirect—an indictment might not be too strong a word—of our intelligence operations and the ability of our national leaders to successfully integrate intelligence. So that is the issue of the moment, and that is getting some footing on Capitol Hill.

Q: I'm Bob Barry, once an arms control negotiator. This is really a related question because I've been in New Hampshire; I've been to a lot of campaign rallies. The issues you bring up have not been discussed in any detail there, and I sense that this is not an issue that congressional candidates are going to want to bring up much in the campaigns this year because it's an issue that's an issue of the past. What's your sense of this? Is this an issue that people can gain traction with, or is it sort of yesterday's politics?

SEN. REED: It's not yesterday's politics. It's today's politics but it's not an issue of salience to most voters. Most folks worry about: Do I have a job? Is my healthcare there or have I lost it? Are my kids going to college and how can I pay for it? They worry in general about the national security issues that are taking center stage. Iraq, they worry a lot about that. There's a lot of concern about that. But as far as the details of arms control, I don't think you'd ever see that as a 30-second commercial on television in any campaign. But that doesn't obligate leaders to pay attention, to work at it, to be cognizant of it, and it certainly doesn't eliminate the need, as an elected official, to pay attention to it, and particularly in the context of the president, to assemble around you people and policies that are supportive of arms control, not that undermine arms control.

So you'll never see a commercial, I think, in terms of my position on the nuclear Nonproliferation Treaty. But any serious person here in Washington, any serious person in the White House has to have such a policy and has to work every day to make sure they have some traction in the world.

MR. KIMBALL: One final question before we conclude. We heard General Habiger in the previous session talk about how the U.S. nuclear posture has not appreciably changed over the last 15 to 20 years in terms of certain assumptions regarding the Russian stockpile and arsenal. The Department of Defense is due to deliver a new stockpile memorandum to Capitol Hill yet many of your colleagues have had a difficult time encouraging a debate about this because this is a classified document. Former Senator Bob Kerrey has talked about this.

I'm wondering if you foresee an opportunity on the Armed Services Committee this year to discuss what the stockpile memorandum might suggest about the weapons complex, U.S. policy, and how might you work with your fellow Republicans to forge a process by which there can be a better dialogue about this very secret and opaque document.

SEN. REED: Well, Daryl, you put your finger on one of the difficulties, which is it is secret. So there is a natural, not only reluctance, but a natural legal tendency not to be discussing these things in open sessions. But that, again, does not relieve us of the obligation to look carefully, not just in private but to discuss those aspects we can discuss and debate it.

I wasn't here for General Habiger's speech but if you took a snapshot in the 1980s and took a snapshot today of our stockpile, it wouldn't look much different. We might have moved some of the cards that designate whether it's active or inactive, but that's all we've done. And certainly it would seem to me to be a situation where we have the opportunity, particularly with the improved relationship with Russia, as evidenced by discussions this week between Secretary Powell and President Putin, to take real steps in terms of reducing significantly our stockpiles. I hope we do.

We're going to try to discuss these issues, both in committee and also on the floor, and I hope we are able to break through and get a good debate going.

Senator Jack Reed is the senior senator from Rhode Island and a congressional leader of the Democratic Party as Deputy Minority Whip. First elected in 1996, Senator Reed is currently the Ranking Minority Member of the Emerging Threats and Capabilities Subcommittee of the Senate Armed Services Committee, where he has responsibility for such issues as global terrorism, weapons of mass destruction proliferation, illegal drugs, and special operations programs. Previously, he developed expertise on U.S. nuclear weapons policies as chair of the Senate Armed Services' Subcommittee on Strategic Forces.



A former Army Ranger and paratrooper, Senator Reed is an outspoken proponent of addressing potential threats to U.S. security through diplomacy and negotiations before resorting to military force. He voted against granting President George W. Bush the authority to take unilateral military action to disarm Iraq, arguing that the United States should not act alone. While voicing unconditional support for U.S. troops throughout the invasion and the continuing occupation of Iraq, Reed has seriously challenged the Bush administration's reasons for going to war, its efforts to rally public support for the invasion, and its post-conflict planning and implementation. In a July 31, 2003 speech, Reed said, "The intelligence used by the administration to justify the war was selectively shaped to support their preconceived views of the threat posed by Saddam." He added, "These distortions were deliberate and calculated to sway opinion rather than to properly inform it." Reed described post-conflict planning as "woefully lacking."

Senator Reed has also staked out positions at odds with other Bush administration national security policies. He helped lead opposition last year to administration proposals to research new types of nuclear weapons and has sharply criticized Pentagon plans to deploy the initial elements of a missile defense system this fall. Reed warned that U.S. research into new nuclear weapons, which he claims are not needed, would send the wrong message to the rest of the world about the utility of nuclear weapons. Per the administration's missile defense deployment plan, the senator has stated, "The President's decision to deploy an untested national missile defense system has more to do with politics than effective military strategy." Reed supports continued research into missile defenses, particularly those designed to counter short- and medium-range ballistic missiles, but contends that all systems should be thoroughly tested before fielded.

Meanwhile, Senator Reed has argued that the United States should do more to reduce potential threats to U.S. security by expanding efforts with Russia to secure its nuclear material and engaging rogue states. Although acknowledging the frustrations of dealing with countries that are "difficult and erratic," Reed claimed in May 2001, "engagement over the longer run makes some sense."

Senator Reed recently wrote on the role of arms control in a January/February 2004 *Arms Control Today* article with Senator Carl Levin (D-MI).

Before becoming a senator, Reed first served three terms in the U.S. House of Representatives. Earlier, he won three terms to the Rhode Island State Senate, worked as a lawyer in private practice, and attained the rank of Captain in the U.S. Army during eight years of service following graduation from West Point.

Georgetown University's Edmund A. Walsh School of Foreign Service

Founded in 1919 to educate students and prepare them for leadership roles in international affairs, the School of Foreign Service remains committed to intercultural understanding and service in the global arena, ideals held by its founder and first dean, Rev. Edmund A. Walsh, S.J. Today, the School conducts an undergraduate program for over 1,400 students and graduate programs to the Master's level for some 500 students.

For the upcoming year, the student body of the School represents over 70 nationalities. Located in the heart of Washington, D.C., students at the School of Foreign Service benefit from opportunities in a unique environment which is not only the seat of the nation's government but also the headquarters of major international organizations and nonprofit institutions, trade and consulting groups, and high technology firms.

The School's liberal arts undergraduate program includes a two-year required core curriculum followed by two years of multidisciplinary electives. Major fields of study include history, international politics, international economics, comparative and regional studies, culture and politics, and science and technology. Six interdisciplinary graduate programs—four regional studies programs as well as the Master of Science in Forest Service and the National Security Studies Program—are designed to teach students to think about, analyze, and act in the world of the twenty-first century with imagination, good judgment, and compassion.

Georgetown University's Center For Peace and Security Studies

Georgetown University's Center for Peace and Security Studies (CPASS) is committed to examining the full range of military and non-military factors—political, economic, historical, cultural, environmental, demographic, and technological—that influence peace and security issues around the world.

CPASS has a four-part mission: to bring together people from every relevant discipline who study international peace and security issues; to create a dynamic hub of activity that bridges the academic and policy communities; to produce a new generation of scholars, analysts, and policymakers that is fully aware of the complexities of international peace and security problems; and to sponsor projects that will lead to the development of sophisticated strategies and practical policies for enhancing international peace and security in the 21st Century.

CPASS research projects focus primarily on the international peace and security challenges of the 21st Century. CPASS research currently concentrates on several important sets of issues: arms and arms control, technology and security, the use of force, conflict and conflict resolution, terrorism and counter-terrorism, and the United States and international security.

CPASS seeks to bridge the growing gap between the academic and policy worlds, thereby generating better conceptual frameworks that in turn will lead to the development of practical strategies and policies for enhancing international peace and security.

The Arms Control Association (ACA) is dedicated to the idea that arms control is a vital part of U.S. and global efforts to prevent war and increase security. For more than 30 years, ACA and its journal, *Arms Control Today*, have been a leading source for authoritative information and analysis on weapons dangers and strategies to control, reduce, and eliminate them.

ACA's well-respected research and analysis combined with our strong presence in the national news media translates into a sophisticated capacity to advocate for effective arms control policies now and in the future. As General John Shalikashvili, the former chairman of the Joint Chiefs of Staff, has stated, "*The Arms Control Association is very successful at framing the important nuclear security issues for both general and expert audiences. In addition, the Arms Control Association's work is an important resource to legislators and policymakers when contemplating a new policy direction or decision.*"

In addition, through its publication of groundbreaking articles in *Arms Control Today*, ACA helps stimulate thoughtful debate on arms control issues in Washington and abroad. Senator Richard Lugar, Chairman of the Senate Foreign Relations Committee, has said that "*Arms Control Today is a vital analytical journal on nonproliferation and controlling weapons of mass destruction.*"

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As a nonpartisan, nonprofit resource center, ACA depends on the generous contributions from individuals who share our vision of a world in which effective arms control policies and international agreements limit the amount, types, and potential destructiveness of the world's weaponry.

We appreciate your support for and participation in the Paul C. Warnke Conference, which is but one part of our work to provide citizens, decision-makers, scholars, and the press with accurate and timely information on nuclear, chemical, biological, and conventional weapons and the best methods to halt their spread and prevent their use.

You can stay involved in and informed about these important issues through:

- *Arms Control Today*, ACA's monthly magazine, which publishes original reporting and groundbreaking analysis;
- ACA's Website, www.armscontrol.org, which provides timely facts and in-depth explorations of all aspects of arms control;
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