Rethinking Proliferation In the Post-Cold War Era: The Challenge of Technology

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I am very pleased to have been invited to address this group on such a timely topic. The theme of this conference is of more than academic interest to me and to Washington policymakers. Over the past three years, adjusting our arms control and nonproliferation policy to the post-Cold War environment has been one of the dominant and demanding international security tasks the U.S. Government has undertaken. I would like to focus my remarks on three principal issues.

First, I will address how the end of the Cold War has changed the environment in which non-proliferation policy must operate. Second, I will take note of some unique opportunities that have opened up to us. Finally, I would like to discuss briefly the relative position of regional factors and technological factors in coping with and rolling back proliferation.

THE CHANGED ENVIRONMENT

The collapse of the Soviet Union turned the world on its head in many aspects of international security policy. Nonproliferation policy was not immune. In the case of non-proliferation policy, the collapse of the Soviet empire created new proliferation concerns. Whatever one might say about the Soviet Union in the broader context of international security, the East Bloc was considered safe territory on the map used by nonproliferators. If we had concerns about Soviet missile or chemical exports, these were seen in the overall Cold War context. In the nuclear field, the Soviets, who were very good at control across the board, were circumspect and cautious in their nuclear supply policy.

The four years since the fall of the U.S.S.R. has reversed all that. **First,** the breakup of the U.S.S.R. left weapons of mass destruction with inadequate controls in some of the new independent states. **Second,** Russia and the other New Independent States—NIS—face new economic incentives to export WMD-related technologies, material, and equipment at a time of grave economic crisis. **Third,** the collapse of totalitarian controls opened up the risk that individuals with access to dangerous materials or with sensitive knowledge could be persuaded to smuggle it to rogue states or terrorists.

So far, we have generally not seen major transfers of nuclear materials from the NIS to third parties. While some materials have been smuggled out of the former Soviet Union—FSU—they have been in quantities that were not sufficient for weapons use. But we need to be vigilant to the danger that such weapons and material might indeed be smuggled out of the NIS—a danger that will remain as long as there is serious instability in the NIS.

Thus, we have the **first** challenge of technology diffusion. One of the dominant non-proliferation objectives the U.S. has pursued since 1992 has been to ensure that Russia, the other NIS, and other former members of the Warsaw Pact are able to control weapons of mass

destruction goods, technology, and expertise in a manner that will promote non-proliferation. While more needs to be done, this aspect of post-Cold War activity, with the enthusiastic support of these states, has generated a number of notable successes. The vast majority of states in Central Europe and the FSU have made conformity with non-proliferation norms a central building block of their security and foreign policies. In so doing, they made a strong case for their integration into other security and political institutions to which they aspire. Ukraine, Belarus, and Kazakstan renounced the nuclear option that the collapse of the U.S.S.R. opened up to them. Russia has joined the Missile Technology Control Regime—MTCR—and agreed with us to unprecedented steps to ensure that arms control he irreversible. Science centers have opened in Moscow and Kiev to prevent "brain drain" by employing thousands of scientists from the Soviet weapons complex in peaceful scientific projects. Russia has begun cooperation with the Group of 7—the G-7—to prevent nuclear smuggling. The list of actions goes on and on.

A second element of the post-Cold War environment has been less positive. The old constraints of the bipolar world have disappeared. Regional actors, especially those cut off from the international mainstream, have lost Cold War security relationships. They also have been freed from superpower constraints and, in particular, those constraints that were imposed by the former Soviet Union. The breakup of the FSU has, in some cases, increased the level of insecurity of the FSU's former clients and their motivation to acquire weapons of mass destruction. Iraq and the Democratic People's Republic of Korea—D.P.R.K.—are cases in point. The threat this trend poses to us has been made painfully clear. Recent revelations of the UN Special Commission paint a grim picture. Unknown to any of us, coalition forces in the Gulf war faced a series of Iraqi biological and chemical weapons deployable on a variety of delivery systems. Worse, we now know that Saddam Hussein had plans that would have allowed him to target most of the capitals of Europe and the Middle East with missiles tipped with nuclear, chemical, and biological weapons by the end of this century. North Korea's use of obsolete but indigenous technology to create a nuclear weapons program also put us on the edge of a major crisis.

This trend even goes beyond states. For the first time, non-state actors have become risks in this field. A bizarre Japanese cult not only used chemical weapons in a terrorist strike but also was acquiring the technology to build nuclear and biological weapons. Opportunists and criminals have managed to get their hands on small quantities of nuclear weapons usable material. Hence there is a real threat that a black market could open up in nuclear, biological, and chemical weapon materials for sale/purchase by private proliferators. Proliferation always had been a game played by states—and a limited number of them. The existing non-proliferation system has not been geared toward coping with the challenge of proliferation opened up, literally, to the man in the street—another new challenge in technology diffusion.

These new challenges have called for responses unlike those the nonproliferation and arms control practitioners of the Cold War would recognize. The Agreed Framework for North Korea, the UN Special Commission for Iraq, the creation of multilateral science centers, and some of the unique arrangements the United States entered into to remove nuclear material from the FSU all broke long-established precedents. But they were crafted to respond to these new challenges. Likewise, efforts to strengthen the International Atomic Energy Agency's (IAEA's) system of safeguards—the 93+2 safeguards program—will provide that agency with enhanced access to nuclear facilities through, for example, environmental monitoring. This will increase the international community's confidence in IAEA inspections. Missile non-proliferation challenges have been met through a strengthened MTCR, including new MTCR partners and states that have agreed to adhere to the MTCR guidelines. The indefinite extension of the nuclear Non-Proliferation Treaty—NPT—without a vote reflects the growing consensus that non-proliferation regimes serve the interest of the global community.

NEW OPPORTUNITIES

In many ways, however, the real headline stemming from the end of the Cold War in this field is that non-proliferation norms have become truly global. The adherence to the NPT of all but the very few countries with obvious political and security motives to hold open a nuclear option was the clearest example of this phenomenon. Last May's decision to extend the NPT indefinitely was strongly supported by the international community with the exception of a very few states. And States did not support this extension because the nuclear weapon states had arm-twisted them into doing so. Their support for indefinite extension reflected the simple recognition that the treaty is in their national interests and that global stability is served by international efforts to stem the spread of weapons of mass destruction. The NFT's extension can, in turn, help lay the foundation for further nuclear reductions by the nuclear weapon states.

Further in this regard, we should note the rush of countries to demonstrate their commitment to international norms through adherence to the various non-proliferation regimes. Former dissenters from the consensus on non-proliferation—all of whom were vocal spokesmen for the unacceptably discriminatory nature of these regimes—have rushed to join up. Argentina and South Africa joined the NPT and have been accompanied by Brazil into the MTCR. Desire for participation in the Nuclear Suppliers Group (NSG), Australia Group (AG), MTCR, and the Coordinating Committee on Multilateral Export Controls—the COCOM successor regime—is high. In short, I believe the fundamental debate over the non-proliferation regime is over. The world, with some exceptions, has accepted the international non-proliferation regime as a fundamental basis for international behavior.

I would like to turn now to a discussion of what I believe is a historic opportunity that should not be missed. A unique confluence of events has created a moment in which all states have it in their interest to eliminate major portions of their arsenals of weapons of mass destruction. The U.S. and Russia have agreed to truly massive reductions of their nuclear arsenals. Indeed, only their capabilities to destroy nuclear weapons hold them to the current dismantlement schedule; they cannot go faster. Other members of the nuclear weapons states are also reducing their nuclear arsenals. The U.S. and the Russians have agreed to the complete destruction of their chemical weapons. All the nuclear weapons states have agreed to accept additional global and non-discriminatory limitations on their nuclear programs through negotiation of a comprehensive test ban and a fissile material cutoff. And the U.S. and Russia are committed to further reductions in their nuclear stockpiles.

One would have thought that those who have for so long pressed the major powers to meet international demands for more and faster arms control would seize this moment to lock in progress on arms control and non-proliferation that could only have been dreamed of even a few years ago. Instead, we are seeing a remarkable reverse logic taking hold in multilateral arms control circles. The very countries that would benefit most from locking in progress at this unique moment have advanced the argument that new non-proliferation agreements are somehow a favor to be done for the great powers and that somehow it is primarily a favor to the current nuclear weapons states to constrain nuclear testing, to extend the NPT, or to cap the production of fissile material. A few governments have managed to persuade some countries and some well-meaning groups in the West that such agreements are suitable hostages to force the nuclear weapon states to agree to a time-bound framework in a multilateral context to complete elimination of nuclear weapons. The nuclear weapons states have agreed to the eventual elimination of nuclear weapons. But this effort to greatly expand and multilateralize the process of nuclear arms reduction is completely impractical and will only slow down reductions. One can only be struck by how this linkage—which its proponents know is unacceptable to the nuclear weapons states—appeared just as the opportunity for

progress on a comprehensive test ban treaty—CTBT—and fissile material control treaty—FMCT—opened wider.

The assumptions behind this new obstacle are patently false. It is not primarily the current nuclear weapons states who lose if proliferation is not constrained by international law and global agreements. Nor does the responsibility for eliminating nuclear weapons fall to the nuclear weapons states alone. Several factors contribute to a climate that makes further nuclear disarmament possible. One such factor is stringent non-proliferation arrangements that give states confidence in the peaceful nature of their neighbors' nuclear programs and that are faithfully adhered to. A commitment by the nuclear weapons states to reduce further their nuclear stocks is another. The first factor is just as critical as the second. Unless states have a high degree of confidence that their neighbors are not developing nuclear weapons, the nuclear proliferation problem will continue to haunt us.

It is unrealistic, at best, to believe that the nuclear weapons states will eliminate their nuclear arsenals in advance of or as a precondition to enhancing the global non-proliferation regimes. The decisions of the nuclear weapons states in the area of nuclear disarmament are shaped by what they perceive to be threats to their security interests, including the proliferation of weapons of mass destruction. Moreover, a precipitous and premature end to existing security structures, and doubts about security commitments, which depend, in part, on the U.S. nuclear umbrella, could actually promote instability as states that have until now eschewed the nuclear option decide they have no choice but to reexamine their options. The lessons of Iraq and North Korea should not be lost. I cannot cite a single case in which the driving factor for a state to develop weapons of mass destruction was nuclear weapons states' unwillingness to eliminate their nuclear weapons. A complex set of factors are at play when states opt to devote often scarce resources to developing weapons of mass destruction. Regional political instabilities or consideration of national prestige are the key motivating factors. So the suggestion that elimination of the nuclear weapons states' nuclear arsenals would translate into a world free from the threat of nuclear weapons is absurd and needs to be recognized as such.

Moreover, the nuclear weapons states can survive in a proliferated world. They have the more direct means to prevent an opponent from threatening them with nuclear, biological, and chemical weapons. Failure to conclude new non-proliferation agreements does not speed up nuclear disarmament; it strengthens the arguments of those who say the great powers need to maintain their arsenals as a defense against newly emerging proliferation threats. It is precisely the states in the Non-Aligned Movement—NAM—who have given up such an option and who are not protected by alliances with NWS whose security would be most damaged by blocking progress now. It is also precisely the states that have declined to join the non-proliferation regime that are the greatest advocates of linking new nonproliferation agreements with further nuclear disarmament. The forces that advocate a strengthened non-proliferation regime need to influence those that do not to ensure that full advantage is taken of the confluence of events that are now prompting the major powers to adopt limitations on their capabilities.

THE ROLE OF TECHNOLOGY DENIAL

The Marquess of Salisbury wrote that,

> If you listen to the doctors, nothing is healthy, if you listen to the theologians, nothing is innocent, and if you listen to the soldiers, nothing is safe.

Sometimes, I suspect that he could say today, "and if you listen to a nonproliferator, no technology transfer is safe." Without question, technology denial has an important role in

controlling the proliferation threat. Yet, because states are motivated by political and security factors to develop weapons of mass destruction, many have developed these programs indigenously without benefit of technology transfer. The fact that much of the weapons of mass destruction and missile technologies are at least 50 years old also decreases the utility of technology denial as a non-proliferation tool. North Korea, which has made a nearly religious effort to cut itself off from outside technology, is today a proliferation threat in the nuclear, chemical, and missile fields—clearly demonstrating the limitations of a technology denial strategy.

Having said that, however, we should not hesitate to use every available tool to slow the development of weapons of mass destruction. Technology denial is really the only tool available in those cases where the best we can do is delay development of weapons of mass destruction to allow time for other factors to be brought into play. The fact that Iran has not yet fulfilled its desire to obtain nuclear weapons is directly related to the concerted efforts of most nuclear suppliers to deny it technology. Technology denial can be an effective tool in cases where international embargoes or the threat of them bolster attempts to prevent transfers of sensitive technologies. Libya and North Korea are two examples. Technology restrictions can block the efforts of states to make qualitative and quantitative improvements to their weapons of mass destruction and missile programs.

In sum, technology denial will continue to play an important role in non-proliferation strategy. It would, therefore, be a mistake to give up on the progress made in tightening international restrictions on key commodities of concern for proliferation. One of the primary diplomatic tasks before us will be to persuade a new generation of suppliers of these commodities in the FSU, Central Europe, and Asia to join the existing arrangements. In this context, I will mention again that we are also trying to close a gap in the nonproliferation regimes through the early establishment of a successor regime to the venerable—albeit outmoded—COCOM. [See the following address by Dr. Lynn E. Davis for an update on this issue.]

While on the subject of technology denial, I would like to note the particular problems presented by biological weapons. UNSCOM's revelations about Iraq's biological weapons—BW—program have reminded a number of us that biological weapons have always been the poor cousin in the non-proliferation business. Yet, they present severe dangers—on the scale of nuclear weapons in terms of destructiveness of human life—because detection and verification in the BW field is inherently difficult. Delivery and production options are all-too-available, even for non-state actors.

Increased access to technology may be an incentive to states to join the international non-proliferation consensus. We should continue our efforts to explore those possibilities. However, we need to make certain that in trying to use technology transfer to induce good behavior we do not inadvertently contribute to proliferation. The North Korean case is a good example of technology incentives being used to nonproliferation advantage. In that case, the U.S. agreed to replace graphite-moderated reactors, which are good plutonium producers, with light-water reactors. This arrangement, once fully implemented, will be a net nonproliferation gain. We also made prudent use of incentives to help Russia regulate its missile-related exports according to international standards. The U.S. offered to facilitate Russian access to the international commercial space-launch market—which did not involve any transfer of sensitive technology—if Russia committed to abide by the MTCR guidelines. The Russians agreed. This has led to mutually beneficial space cooperation as well as to Russian membership in the MTCR. There are also many forms of peaceful space cooperation that do not raise proliferation concerns. Satellites, data processing, and other areas unrelated to rocket systems provide potential "safe" incentives.

Despite the important role of technology, however, we cannot escape the fact that proliferation is essentially a regional political problem that must always focus on regional political solutions. If we are to succeed in effectively addressing the problem, we must first address the regional insecurities that give rise to weapons of mass destruction programs. Unless we first identify and eliminate the basis for these insecurities, we will be confined to treating the symptoms of the problem. In the Middle East, for instance, the U.S. and Russia as co-sponsors of the peace process have sought to address arms control and regional security issues in the context of efforts to achieve peace in the region. The Arms Control and Regional Security working group was established to deal with the thorny proliferation and arms control questions that must be addressed in the context of broader efforts in the region. It is only through this kind of attention to the underlying factors that cause proliferation that we will manage to arrive at a lasting solution to the proliferation problem. There will be no universal cure, however. The states in question must be genuinely prepared to grapple with the fundamental political and security motivations that drive proliferation before we can hope to deal with the most difficult non-proliferation cases.

In conclusion, I believe that there is ample opportunity for progress in this area as well as a pressing need to address the new proliferation problems that have emerged in the post-Cold War period. I hope that I have succeeded in providing this conference with some ideas that will prove useful as you continue in your efforts to confront this problem and devise solutions to it.