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ACHIEVING NUCLEAR ZERO: WAY AHEAD¹

At the remarkable summit meeting at Reykjavik in October 1986 between President Ronald Reagan and General Secretary Mikhail Gorbachev the two leaders discussed the vision of a world free of nuclear weapons. 1986 was a watershed in terms of global inventories of nuclear weapons. Although the two leaders failed to achieve their ultimate goal, they steered the world in a new direction, toward many fewer nuclear weapons.

A conference at the Hoover Institution in 2006, convened by George Shultz and Sidney Drell on the 20th anniversary of Reykjavik, considered what it would take to rekindle the vision shared by Reagan and Gorbachev. The participants agreed that a world without nuclear weapons was not only a goal worth pursuing, in itself, but would also invigorate efforts to prevent the proliferation of nuclear weapons. They therefore decided that another conference should be held to discuss a series of practical steps leading to major reductions in the nuclear danger. At the second conference at the Hoover Institution one year later, this time in cooperation with the *Nuclear Threat Initiative* (NTI), the goal of a world free of nuclear weapons was reaffirmed, and specific steps toward that end were elaborated in considerable detail. The final report of that conference was published by the Hoover Press in December 2008, under the title *Reykjavik Revisited: Steps Toward a World Free of Nuclear Weapons*.

Following the 2006 Conference, former U.S. secretaries of state George Shultz and Henry Kissinger, former secretary of defense William Perry, and former chairman of the Senate Armed Services Committee Sam Nunn (D-Ga.), wrote that:

“Reassertion of the vision of a world free of nuclear weapons and practical measures toward achieving that goal would be, and would be perceived as, a bold initiative consistent with America’s moral heritage. The effort could have a profoundly positive impact on the security of future generations. Without the bold vision, the actions will not be perceived as fair or urgent. Without the actions, the vision will not be perceived as realistic or possible.”²

This conclusion is central to the case for revisiting the idea of a world free of nuclear weapons as an operationally meaningful goal. It was the consensus opinion of the two conferences at the Hoover Institution, and it was strongly supported by participants from many countries at an international conference organized by the Norwegian Foreign Ministry in Oslo in February 2008. In contrast to the world reaction in 1986, which was highly skeptical, the reaction in 2006 and thereafter has been remarkably positive.

The essence of the argument is that linking immediate actions and a long-term vision will produce synergies that will encourage progress toward a world without nuclear weapons. I think there are several immediate advantages that can be identified. Generating support for individual steps that may not, in themselves, enjoy universal endorsement should be one result. Obliging governments to think through all the steps that have to be taken to safely reach the goal of a world without nuclear weapons is another. A third is that the goal can also be a compass: it can add coherence to day-to-day national decisions. A fourth result, more ephemeral-



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al, is the intensity of purpose that may be created by the pursuit of this goal: mustering the necessary political will is another way of putting this. And a fifth benefit should be that the United States and other possessors of nuclear weapons would be able to move from the defense in nonproliferation matters, where we presently are, to the offense, thus enabling us to be more effective in advancing our nonproliferation interests.

Permeating the first *Wall Street Journal* article – and reflected also in a second article published in January 2008 – was a sense of urgency. The authors believed that the world is approaching a time when nuclear weapons will be more widely available, as nuclear deterrence becomes less effective and increasingly hazardous as a policy choice. Another judgment was that the steps the international community has taken to address current nuclear threats has not adequately responded to the danger.

And yet, despite the somber nature of their views, what these four men said was basically optimistic: yes, there are problems, but also solutions. The world need not give in to pessimism, or fatalism, and certainly not to the paralysis of fear. At the same time, they saw no grounds for complacency. “The world teeters on the edge of a new and more perilous nuclear era,” to quote from the preface to the aforementioned final report.

The developing situation is not favorable to nuclear nonproliferation, they thought. The international consensus behind the NPT has eroded. And new dangers that did not exist in the Cold War heighten the inherent risk posed by more nuclear weapons in more hands. These new dangers include international terrorism, well-organized nuclear black markets, and the rise of cyber warfare, which will make the management of any future nuclear crisis more problematic than in the past. Just think of Khrushchev and Kennedy trying to control the Cuban Missile Crisis while a third party distorts or prevents their urgent communications with each other.

In their second article, published on January 15, 2008 in the *Wall Street Journal*, Shultz, Kissinger, Perry, and Nunn declared that the United States and Russia should:

- extend key verification provisions of the Strategic Arms Reduction Treaty of 1991;
- take steps to increase the warning and decision times for the launch of all nuclear-armed ballistic missiles, thereby reducing risks of accidental or unauthorized attacks;
- discard any existing operational plans for massive attacks that still remain from Cold War days;
- and undertake negotiations toward developing cooperative, multilateral ballistic missile defense and early-warning systems.

In addition, the four authors pointed to the need to:

- accelerate work dramatically to provide the highest possible standards of security for nuclear weapons, and for nuclear materials everywhere in the world, to prevent terrorists from acquiring a nuclear bomb;
- start a dialogue, including within NATO and with Russia, on consolidating the nuclear weapons designed for forward deployment to enhance their security and as a first step toward careful accounting for them and their eventual elimination;
- strengthen the means of monitoring compliance with the Nuclear Non-Proliferation Treaty (NPT) to counter the global spread of advanced technologies; and
- adopt a process for bringing the Comprehensive Test Ban Treaty (CTBT) into effect, which would strengthen the NPT and aid international monitoring of nuclear activities.

Each of these steps was seen as a candidate for action in 2008. The article also emphasized four other key issue-areas that would take somewhat longer to realize:

First, the United States and Russia must undertake further substantial reductions in U.S. and Russian nuclear forces beyond those recorded in the 2002 U.S.-Russian Strategic Offensive Reductions Treaty. As the reductions proceed, other nations should quickly become involved.

Second, an international system of controls should be developed to manage the risks of the nuclear fuel cycle. Multilateral facilities will have to be devised and operated with the support of a strengthened International Atomic Energy Agency (IAEA), guaranteeing that the low-enriched uranium required for power reactors will be available, that the fuel will remain under appropriate multilateral controls, and that the spent fuel will be removed to internationally operated facilities.

Third, a verifiable treaty should be completed to prevent all nations, both nuclear and non-nuclear, from producing nuclear materials for weapons, and a more rigorous system of accounting and security for nuclear materials should be developed.

Fourth, states must turn the goal of a world without nuclear weapons into a practical enterprise among nations by applying the necessary political will to build an international consensus on priorities.

Each of the steps identified in the article of January 15, 2008 would make the world a safer place. Among those people who think that a world without nuclear weapons is beyond imagining at this point in time, there is support for the individual steps. No one, in fact, is suggesting that all progress in building a nuclear restraint regime be put on hold while the feasibility of achieving a world without nuclear weapons is examined. To the contrary, as I will suggest later in my remarks, implementation of each of the steps advocated by Shultz, Kissinger, Perry, and Nunn should pave the way for the “end state”, where nuclear weapons arsenals would be reduced from 50–100 bombs and warheads to zero.

Let me provide some background to put these recommendations in perspective. Many of us believe that the U.S.-Soviet experience of the Cold War does not provide any grounds for complacency regarding the theory that nuclear deterrence can keep the peace through the threat of mutual assured destruction. The history of the Cold War establishes quite clearly, in my view, that the U.S.-Soviet competition was unique. Nations that for the first time are building nuclear weapons, or planning to, may succeed in using their newfound power to avoid war, but this cannot be counted on. Very special circumstances made nuclear deterrence between the Soviet Union and the United States a successful instrument of peace, although one that always contained the vast risk of annihilation on a global scale. Each of the two nations believed it would ultimately prevail, largely through peaceful means, and thought preventive war was unnecessary. Moreover, the United States and the Soviet Union had no territorial claims against the other and they were insulated by thousands of miles from the daily frictions that arise when adversaries live side by side.

Given these circumstances, the Soviet Union and the United States had the luxury of time to develop rules, tacit and otherwise, to tilt the scales against the use of nuclear weapons. These circumstances do not exist in the Middle East, Northeast Asia, or South Asia, and they may not exist in other parts of the world where nuclear weapons competitions could suddenly erupt. To assume that nuclear deterrence will always work successfully, even in very different conditions, is an exercise in wishful thinking. As former U.S. Secretary of Defense Harold Brown has written, “the stability of even the one-on-one case depends on the internal stability, rationality, and command-and control arrangements of the respective regimes.” Furthermore, and this is a key point, Brown observed that “what works on one does not necessarily work on many.”

Even during the 1980s, President Reagan, the inspiration for current ideas about eliminating nuclear weapons, questioned the utility of nuclear weapons as the bases for deterrence. Reagan was ahead of his time, and was roundly criticized by the nuclear *mandarins* of the day for daring to think seriously about eliminating nuclear weapons. But his legacy in the United States persists in four lines of thought, not universally shared, to be sure, but very widespread:

- ❑ A recognition of the ultimate futility of dependence on nuclear weapons for national security;



- ❑ A paradigm shift from arms control, as practiced since the early 1960s, to nuclear disarmament;
- ❑ Ballistic missile defense as a key to eliminating nuclear weapons;
- ❑ The *de facto* termination of the doctrine of “protracted nuclear war” as it was understood in the 1970s.

Also during the 1980s, there were people who thought quite seriously about abolishing nuclear weapons. One of them was Jonathan Schell, who wrote a book entitled *The Abolition* published in 1984. He observed, among many other things, that “the more closely we look at the zero point the less of a watershed it seems to be. Examined in detail, it reveals a wide range of alternatives, in which the key issue is no longer the number of weapons in existence but the extent of the capacity and the level of readiness for building more.”

The United States and Russia have reduced their nuclear arsenals significantly since the end of the Cold War, but each has thousands of nuclear weapons in its inventory even though the strategy of mutual assured destruction (MAD) has become obsolete. The real danger lies elsewhere: terrorists are anxious to get their hands on an atom bomb or other nuclear device and will pay a high price to do so. They are determined to find vulnerabilities and to exploit them. So far, the civilized world has patched the potential leaks in time. A thriving nuclear black market was broken up just a few years ago, but it operated without detection for a long time. Even the most meticulous control systems sometimes lose track of the thousands of nuclear weapons or their components. That happened twice in the past year just in the United States.

The equation that should inform policy is this: more atomic bombs or warheads in more hands equals more chances for them to be lost, stolen or used in anger. Each nation has an interest in preventing this deadly progression, even if it means rolling back its own holdings of nuclear weapons.

It would make a difference if the nuclear weapons states, led by the United States and Russia, joined in removing nuclear weapons from their war plans and in taking prudent steps to reduce the numbers of deployed weapons to zero. And, very importantly, it would create a solid front against the acquisition of nuclear weapons by Iran, North Korea, and others that might seek to emulate those nations.

THE JOURNEY TO ZERO

As the current possessors of nuclear weapons reduce their arsenals to some very low numbers of nuclear bombs and warheads, several issues will come to the fore, all of which will have to be thoroughly examined long before the nations embark on the journey to zero. In fact, it is advisable to begin now a serious consideration of these issues because, first, a genuine policy commitment to zero nuclear weapons should be based on a good, even if incomplete, understanding of international security challenges at the “end state”; second, a persuasive case for an international commitment to zero must be based on plausible answers to questions about feasibility and risks; and third, there must be a clear understanding of what “zero” means, in practice. I propose to raise several of these issues in the balance of my remarks more to point to areas where much more work is needed than to suggest that I have answers.

To begin with, it should be assumed that progress toward the end state of zero nuclear weapons will have been preceded by implementation of at least the following actions:

1. Numerical limits will have been imposed by verifiable treaties on national nuclear forces of all nations possessing nuclear arms, including on warheads and on delivery systems, both “tactical” and “strategic,” both in a deployed and reserve or non-deployed status.
2. The Non-Proliferation Treaty will be strengthened by formal requirements of adherence to the Additional Protocols.

3. A Fissile Material Cut-off Treaty will be in force to prevent production of more special nuclear material, and existing supplies will be safeguarded.
4. The Comprehensive Test Ban Treaty will have entered into force.
5. An international control regime will be in force for the complete nuclear fuel cycle for civilian power.

Of course, regional disputes should also be addressed and, if possible, resolved. Doing so will be critical to creating a stable strategic environment in which deep reductions on a global basis can be pursued. I should also underscore that the first item in my list focuses on limiting and reducing nuclear weapons stockpiles on a global basis, not just between Russia and the United States.

All the rest are aimed at preventing the further spread of nuclear weapons capabilities while the current holders of nuclear weapons are shrinking their stockpiles. All are necessary to improve global security. All provide useful test-beds to discern whether cooperation in this sensitive area is possible.

I think of the “end state” as beginning at a point when all deployed nuclear weapons have been reduced to a few hundred globally and all nuclear armed states have begun the process of capping and reducing the numbers of non-deployed or reserve, nuclear weapons. The culmination of the end state would be a world without nuclear weapons. Can we reliably verify the absence of nuclear weapons? We have years of successful experience in verifying numbers of nuclear warheads associated with deployed missiles and bombers. We can monitor the numbers and locations of the principal means of delivering warheads – bombers and missiles – and that also gives us some handle over nondeployed warheads. But there can be no doubt about it, assurances that all non-deployed warheads everywhere in the world have been eliminated will be the last accomplishment in a long and difficult journey. A great deal of thought should be devoted to all aspects of this issue, and this has not been the case for decades.

The experience of the IAEA in monitoring Iraq's nuclear-capable facilities provides some useful information. In his report to the UN Security Council on January 27, 2003 the Director General of the IAEA described what measures had been taken and said that “no evidence that Iraq has revived its nuclear weapons program” had been found. He concluded that provided “sustained proactive cooperation by Iraq” was available, “we should be able within the next few months to provide credible assurances that Iraq has no nuclear weapons program.” What he was saying was that proving a negative is possible, given the cooperation of the country being inspected. But, lacking such cooperation, proving a negative will be essentially impossible, given today's monitoring capabilities, and proof will clearly be more dependent on human intelligence resources than on technical instrumentation.

Much more study is needed in this, and other areas. For example, recessed deterrence (an arsenal stored in such a way as to require lengthy preparation to assemble and launch warheads), latency (a technical capability that has not been constructed), and virtual arsenals (arsenals that have been deconstructed but can be rebuilt) are the kinds of options that need to be addressed by serious analysts.

Furthermore, to say that nondeployed warheads are hard to find is not the same as saying that warning of an impending activation of concealed weapons cannot be detected. Pre-emption or some other type of intervention would be available as an option if such activities were reliably detected. We have had experience in looking for warning signs of imminent missile launches but knowing whether a missile was mated with a nuclear warhead would be impossible, based on remote sensing and, here again, human intelligence would come into play. Monitoring aircraft would also be an enormously challenging task for verification

We should not expect that nuclear deterrence by means other than deployed or non-deployed weapons would disappear even if all nuclear weapons were eliminated. This was Jonathan Schell's point and is key to understanding the nature of the issue we are wrestling with. I find an echo of it in the language of Secretary of Defense Robert Gates and former U.S. Secretary of Energy Samuel Bodman, who wrote in their September 2008 *White Paper* on nuclear weapons that they believed the United States should “rely, over time, more heavily on a



responsive nuclear weapons design and manufacturing infrastructure to manage risks, and less on an inventory of non-deployed warheads.” The logical end-state of such a policy could be a world without nuclear weapons – both deployed and non-deployed – where the sanction for defiance of the world’s will to escape from the nuclear deterrence trap would be a responsive nuclear infrastructure and cooperative defenses against any outlaw that attempted to initiate a nuclear attack. This may be what nuclear deterrence will look like in the future. It has its own set of problems, which need close examination. For the purists, it is not ideal. But I suggest that it is a big improvement over what we have today.

All former nuclear weapons states would be able to retain the basic infrastructure for producing nuclear weapons; controlling lead-times required for some finite level of reconstitution would be an important element in controlling reconstitution capabilities. More study is needed on whether it is possible to impose limitations or measures of transparency so precisely targeted that they would have the effect of creating verifiable lead-times of predictable durations. Specifically, a study is needed on the following questions:

- (1) What are the necessary elements of a responsive nuclear infrastructure?
- (2) What should be prohibited?
- (3) What can be done to assure early and reliable warning of a break-out attempt?

A nuclear-free world has been described by some critics as an invitation to a reconstitution race, which would present an unstable and potentially dangerous strategic environment. Granted, it could become this, but two factors would prevent it:

- (1) early and reliable warning of break-out and
- (2) agreed measures of response that would serve as a deterrent. Both factors need additional study to determine their feasibility.

The first factor would pose the need for an international monitoring systems, and probably also regional systems, empowered to watch for and report promptly any signs of attempts to fabricate nuclear warheads and mate them with delivery vehicles.

The second factor, agreed responses to threats, would require a degree of international consensus that would be hard to obtain under today’s circumstances but might not be so difficult in a situation where all nations would feel threatened by one rogue state or non-state entity.

As one begins to think about a world without nuclear weapons in a more than causal way, one cannot help being impressed by how many ramifications there are. But this is one of the strengths of the idea: it forces attention on issues that might otherwise be neglected. I will discuss some of these in the remainder of my time.

It is argued by some skeptics that a decision by nuclear-weapon states to reduce and eventually eliminate their nuclear arsenals will not affect the decisions of other countries that may be weighing the importance of nuclear weapons for their security. The contemporary international environment is characterized by the general expectation that nuclear proliferation will continue and that the current nuclear-armed states will not surrender their nuclear weapons. In such an environment it is almost impossible to secure universal agreement to take action against countries like Iran and North Korea.

That situation would be altered if expectations were reversed: that proliferation would not proceed and that the nuclear-armed states already had given up their ready-to-use nuclear weapons. The incentive structure would change completely. Instead of tolerance for infringement of global norms, there would be intolerance, simply because each of the former nuclear-armed states would have a major stake in preventing break-out and hence in cooperating with other states in quelling a threat to their mutual security.

Several measures, both active and passive, should be put into place to defend against break-out. One of these would be active defenses against aircraft, cruise missiles, and ballistic missiles. This will not be easy to do, and the threat of pre-emptive attack may be the only military solution. As regards passive defense measures, greater intelligence sharing will be required,

bolstered by agreed measures of transparency. In addition, the defensive structure put into place during recent years should be integrated and brought under UN supervision. I refer here to UN Security Council Resolution 1540, the *Proliferation Security Initiative*, and initiatives related to prevention of nuclear terrorism.

Professor David Holloway of Stanford University has suggested an *interim option*, which would be the final stage before all nuclear-armed states move to zero *deployed* warheads. Each nuclear-armed state would be permitted to have 50–100 deployed warheads.³ This option could also be considered *interim* in the sense of maintaining minimal deployed nuclear deterrent forces while developing confidence in the following areas:

- ❑ verifying permissible activities that are part of a responsive nuclear infrastructure;
- ❑ monitoring dismantlement of warheads scheduled for elimination;
- ❑ putting in place procedures for challenge inspections to search for concealed warheads;
- ❑ creating cooperative defense systems against nuclear attack;
- ❑ developing compliance mechanisms to enforce nuclear agreements.

Under this concept, 50–100 operationally deployed warheads would be retained while all *non-deployed* warheads are in the process of being eliminated. When the nations were satisfied that sufficient progress had been made in the five areas listed above, all deployed nuclear warheads also would be eliminated. The idea of time-bound nuclear disarmament has been advocated from time to time, frequently by the Government of India. It might be reasonable to suggest a deadline for reducing from 50–100 to zero to reduce the opportunities for foot-dragging. If the deadline could not be met, the commitment could be terminated, and 50–100 operationally deployed warheads would remain the agreed ceiling.

In addition to incrementalism through phased reductions by nuclear weapon states, there is also the possibility of geographic incrementalism. Nuclear-free zones already exist in many parts of the world. These can be maintained and others can be added. The elimination of nuclear weapons in one region, say Northeast Asia or South Asia, should not be delayed until all other regions have reached agreement to eliminate nuclear weapons. Of course, this asymmetric approach to a nuclear-weapon-free world raises questions about equity. And it also raises the issue of the role security assurances play in advancing the prospects for a nuclear-weapon-free world.

One of the most common complaints about the idea of eliminating nuclear weapons is that this might “make the world safe for conventional war.” The implication of this is that aggressor nations would be free to make war on others because there would be no fear of nuclear retaliation. As suggested above, regional disputes should be resolved before nations enter the end-state phase of eliminating nuclear weapons. This would remove the threat of powerful conventional forces being used by large nations to settle scores with smaller neighbors.

It is already clear that at least in Europe, limitations on conventional forces will be necessary if nuclear weapons are to be reduced significantly, let alone eliminated. The Conventional Forces in Europe (CFE) Treaty has been suspended by Russia and new terms will almost certainly have to be negotiated. Limitations on missiles also are likely to be necessary. In short, deep reductions leading to elimination of nuclear weapons will require limitations on other military forces, as well. And Europe will not be alone in requiring this. Nations in the Middle East, South Asia, and East Asia also will raise the issue of limiting missiles and conventional forces.

It will be more important than ever to ensure that the bans on development and use of other unconventional weapons, especially biological weapons, remain in force and that verification machinery is instituted and strengthened. Biological weapons have been called the “poor nation’s atom bomb” because they are cheaper and easier to produce than nuclear weapons. Some advanced nations that agree to give up or forgo nuclear weapons also might be tempted to replace them with biological weapons as their ultimate deterrence. An outcome that



encourages the development and proliferation of biological weapons clearly must be avoided. For this reason, high priority should be given to negotiating a verification protocol to the Biological Weapons Convention at the earliest possible date.

LIVING WITHOUT THE BOMB

Two very basic criticisms of the process of eliminating nuclear weapons are:

- (1) Nations that have privileged positions in the international system by virtue of being nuclear weapon states will be reluctant to accept giving up that status or even to accept parity in nuclear weapons as stockpiles are reduced to low levels.
- (2) Nations that fear the conventionally-armed military might of neighboring countries or that of one of the world's larger nations have sought nuclear weapons as a deterrent against conventionally-armed attack. Such nations would be reluctant to give up the nuclear *equalizer*.

These are real and serious obstacles to achieving a world without nuclear weapons. In these two factors, rather than in technical problems, can be found the principal reasons why reaching zero will be so difficult. Yet, there are the beginnings of answers to these problems too. First, the process of moving toward elimination of nuclear weapons should induce political change that will encourage further reductions. Second, for the former nuclear weapons states nuclear deterrence would live on, in the form of a reconstitution capability, while for non-nuclear weapons states a latent capability would exist in at least some cases, which also would represent a form of deterrence. Third, alliances and security guarantees will have to be part of the equation, as will a strengthened role for the United Nations and regional security organizations. And fourth, over time the prestige and sense of a special place in the international order conveyed by nuclear weapons will disappear as the international norm of non-possession takes hold.

One of many important points Ambassador Chester Crocker makes is that "there may be no more important issue than identifying the mechanism and the institutional formula for addressing what one expert [Jayantha Dhanapala] has described as 'the institutional deficit on the NPT.'"⁴ Crocker calls for "the establishment of a new overarching framework" which would have oversight responsibilities for denuclearization. This idea also deserves study if the notion of a world without nuclear weapons is to be taken seriously.

A key conclusion of the 2008 *Wall Street Journal* article was this: "The U.S. and Russia, which possess close to 95 percent of the world's nuclear warheads, have a special responsibility, obligation, and experience to demonstrate leadership, but other nations must join."⁵

There are probably many ways to begin the process. A commitment by the United States and Russian presidents, possibly at their meeting in April, to work for a world without nuclear weapons would be a good beginning. It would be even better if they instructed their negotiators to work for a legally binding agreement with a ceiling of 1,000 warheads to be defined in a way that would be equitable for both sides.

In addition, a critical first step is to secure U.S.-Russian agreement either to the extension of START for five years or to extract from it the verification provisions essential for continuing reductions in nuclear weapons. Beyond that, various paths are open to negotiators, ranging from a completely new nuclear constraints treaty, to parallel or reciprocal unilateral actions, to a regime in which, as at the present time, both START and the Treaty of Moscow provide the legal basis for U.S.-Russian nuclear weapons constraints. It is not my intention here to present a blueprint for further action. That would be presumptuous on my part. But I would like to offer a few reflections on the options that, it seems to me, are hypothetically available to Moscow and Washington and the three generic models I have just mentioned comprise a reasonable frame of reference.

First, I think that it is important that Russia and the United States record solid progress in nuclear arms reductions well prior to the 2010 NPT Review Conference. My impression of the last two such conferences is that they did little or nothing to advance the cause of nonprolifer-

ation and may have set it back. Another result like that would be disastrous. I am not able to gauge the possible reactions of other nations to agreements that Russia and the United States might be able to reach within the next year. I think that progress beyond where we are now certainly will be essential, but several options might fit that requirement. Of the three models I just mentioned, it is clear to me that the negotiation of a new strategic nuclear arms treaty would take much longer than a year to accomplish. Would the fact that such a treaty was under negotiation be regarded as real progress in further implementation of Article VI? Perhaps, but expectations may be higher now than in the past, thanks in part to disappointments in the last two Review Conferences and the renewed public interest in a world without nuclear weapons.

Would parallel or reciprocal U.S. and Russian constraint measures be seen as solid progress? An example of this might be reciprocal deactivation of nuclear delivery systems, along the general lines of that announced in the Clinton-Yelstin Joint Statement on Parameters of Future Nuclear Reductions of March 21, 1997. This would be a fairly quick way of reducing the numbers of START-accountable warheads or actually-deployed warheads, on a provisional basis, pending the negotiation of a full-fledged treaty. Another example, closely related to this, would be the removal of missiles from a prompt launch mode, as many experts have proposed. Additional negotiated actions that might complement such reciprocal unilateral measures would add to their real and perceived impact. One of the most significant of these, I think, would be real progress on a U.S.-Russian agreement on the transparent and irreversible dismantlement of nuclear warheads. The two countries made aborted starts in this direction in the mid 1990s, one of which I led. Is this still premature, or has it become more mutually acceptable?

The third illustrative model I mentioned, the *cohabitation* of START and the Treaty of Moscow, sounds contrived and slightly odd until one reflects on the fact that this is precisely the regime that the two countries have been living with, fairly comfortably, since 2002. We may have to continue living with it through 2012, when the Treaty of Moscow expires. There are conceptual problems with this but, though messy, this hybrid regime does impose constraints both on delivery systems and warheads. The participants in the NPT Review Conference might not be impressed by this holding action but if Russia and the United States were in agreement that they regarded the elimination of nuclear weapons as their joint objective, if the two countries agreed, in principle, on lower START-accountable ceilings and on lower Treaty of Moscow warhead ceilings defined in terms of actually, rather than hypothetically, deployed warheads, the real and perceived impact would be very significant. It perhaps goes without saying that accounting for actually deployed warheads would take us into new realms of verification techniques. But if the two countries meant what they said about eliminating nuclear weapons they inevitably would have to begin looking into new verification methods, and the sooner the better, I think. It will not be easy, but we have always known that.

If all of this seems too ambitious, I leave you with this thought, another observation made by Messrs. Shultz, Kissinger, Perry, and Nunn:

“...In some respects, the goal of a world free of nuclear weapons is like the top of a very tall mountain. From the vantage point of our troubled world today, we can’t even see the top of the mountains, and it is tempting and easy to say we can’t get there from here. But the risks from continuing to go down the mountain or standing pat are too real to ignore. We must chart a course to higher ground where the mountaintop becomes more visible.” 

NOTES

¹ The article is based on the remarks made by Amb. Goodby at the roundtable “*What Should Be the Next Steps in the U.S.-Russian Nuclear Disarmament Process?*” held by the PIR Center together with the Nuclear Threat Initiative (NTI) in Moscow on March 5, 2009.

² *Wall Street Journal*, January 4, 2007.

³ *Reykjavik Revisited: Steps Toward a World Free of Nuclear Weapons* (Hoover Press, 2008), ch. 1.

⁴ Chester Crocker, *Toward a Diplomatic Action Plan on Nuclear Issues* (Hoover Press, 2009).

⁵ *Wall Street Journal*, January 15, 2008.

