

**Second Annual Robert McNamara Lecture on War and Peace
Delivered by William J. Perry
Secretary of Defense 1994-1997**

“HAVE WE REACHED THE NUCLEAR TIPPING POINT?”

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**Belfer Center for Science and International Affairs, and the Institute of Politics,
Harvard Kennedy School, Cambridge, Massachusetts**

Delivered in the John F. Kennedy Jr. Forum

Feb. 24, 2011

On my first day as Secretary of Defense, I walked into the Secretary’s cavernous office and went over to the grand desk once used by General. Pershing. The desk was empty, except for a lone book---it was Bob McNamara’s book on the Vietnam War. Bob had evidently come in early that morning and asked my assistant to put his book on my desk.

I opened the book and there on the flyleaf was an inscription from Bob:

“Dear Bill, Please read this book and learn from it, and do not not make the same mistakes that I made.”

And so I began my tenure as Secretary of Defense. Often, during and after my tenure, I would discuss current issues with Bob and I cherish the memories of those conversations.

At our last meeting, just about a year before his death, Bob spoke passionately about the importance of my work to reduce the dangers of nuclear weapons. And he was curious as to what why I had taken a road so different from that taken by other secretaries of defense.

I think the best answer to that question is found in some memorable lines from Robert Frost:

“I shall be telling this with a sigh,
Somewhere ages and ages hence.
Two roads diverged in a wood, and I;
I took the one less traveled by;
And that has made all the difference.”

During the Cold War, I took a well-traveled road with tens of thousands of colleagues, working on high-tech weapon systems designed to deter the Soviet Union.

But at the end of the Cold War, I saw two roads diverging, and I chose to take the one “less-traveled by.”

Tonight I will tell you of my personal journey on that less-traveled road---a journey that took me from working to create the most advanced nuclear weapons in the world to working to create a world without nuclear weapons.

I will start by sharing with you two of my personal experiences during the Cold War--experiences that were pivotal in shaping my views on nuclear weapons and leading me to this less-traveled road.

Very early in my career, when I was a scientist at an electronics lab in Mountain View, I received a phone call from a former Stanford classmate, Dr. Albert Wheelon, who at the time was the CIA's Deputy Director for Science and Technology.

He asked me to come back to Washington to consult with him on a technical problem.

I said "Sure, I will rearrange my schedule and see you early next week."

He said, "You don't understand, I need to talk to you right away."

So I dropped everything and took the night flight back to Washington and met with him the first thing the morning. I was stunned when he showed me U-2 pictures of a Soviet missile deployment underway in Cuba. That was my first introduction to what has come to be called the Cuban missile crisis.

For the next 13 days, I was part of a small team that worked every night, studying the latest technical intelligence that was collected that day, so that President Kennedy had the benefit of that analysis first thing the next morning.

Every day that I went to our analysis center I truly believed would be my last day on earth.

Some of you here tonight are too young to have personal memories of the Cuban Missile Crisis, so I am going to show you the kind of news programs I watched when I returned to my hotel room after a long day in the analysis center.

Newscast video: "Khrushchev ordered his navy ships to stay their course. The world anxiously watched as the high-powered showdown continued, with all-out nuclear disaster hanging in the balance. America held its collective breath as the president reiterated what was at stake."

Kennedy: "It shall be the policy of this nation to regard any nuclear missile launched from Cuba against any nation in the Western Hemisphere as an attack by the Soviet Union on the United States, requiring a full retaliatory response upon the Soviet Union."

There was nothing ambiguous in that statement. And now I'll give you a brief excerpt from a speech of Kennedy's that illustrates just how deeply he felt about the dangers and inhumanity of nuclear war.

Kennedy video: "Today, every inhabitant of this planet must contemplate the day when this planet may no longer be habitable. Every man, woman and child lives under a nuclear sword of Damocles, hanging by the slenderest of threads, capable of being cut at any moment, by accident, by miscalculation, or by madness. The weapons of war must be abolished before they abolish us."

The second experience occurred 16 years later, when I was the Under Secretary of Defense for Research and Engineering.

I was sleeping in my bed one night when the phone rang at 3 o'clock in the morning. and as I sleepily picked up the phone, I heard a voice identifying himself as the watch officer at North American Aerospace Defense Command.

The general got right to the point, telling me that his computers were indicating 200 missiles were on the way from the Soviet Union to the United States. I immediately woke up.

I still remember the general's words as if this happened yesterday.

The computer alert, of course, was a false alarm.

The general was calling me in the hopes that I might help him help him figure out what the hell had gone wrong with his computers so that he'd have something to tell the president the president the next morning.

While that call holds a special place in my memory, it is only one of three false alarms that I'm personally familiar with that occurred in the United States, and I don't know how many more might have occurred in the Soviet Union.

So I had a close personal experience with the possibility of a nuclear catastrophe that could have resulted in no less than the end of civilization.

And to this day, I believe that we avoided nuclear catastrophe as much by good luck as by good management.

Ironically, during the same period that I experienced the false warning of an attack by Soviet nuclear weapons, I was responsible for the development of America's nuclear weapons: The B-2, the MX missile, the Trident submarine, the Trident missile, the Air Launched Cruise Missile, the Tomahawk missile, all of them.

I saw all too clearly the risks in building such deadly weapon systems, but at the time I believed then that it was necessary to take those risks.

But in 1989 the Cold War ended. The ending was symbolized by two dramatic events that no one that I knew had expected. First, the fall of the Berlin Wall; then less than a year later, and equally dramatic and unexpected, was the collapse of the Soviet Union.

(Video clips of newscasts of fall of Berlin Wall and end of Soviet Union).

During the Cold War, I believed that it was necessary to take the risks associated with large nuclear arsenals, but after the Cold War ended, I believed that it was no longer necessary to take those terrible risks.

Indeed, I came to believe that I had a moral imperative to work to dismantle this deadly nuclear legacy.

My first opportunity to act on that belief came in 1994 when I was asked by President Clinton to be his Secretary of Defense. I started my journey on the less-traveled road by making it my top priority as secretary of defense to reduce the dangers of the Cold War nuclear arsenal.

The greatest immediate danger was that the nuclear weapons in Ukraine, Kazakhstan and Belarus would fall into the hands of terrorists. When the Soviet Union collapsed, these new republics had inherited the nuclear weapons that were then on their soil. Ukraine, for one, had more nuclear weapons than the United Kingdom, France and China combined! And they were going through great social, economic and political turbulence.

Through adroit diplomacy, we were able to get these new republics to agree to give up their nuclear weapons. This agreement required us to assist them in the complex and expensive dismantlement process.

As the Secretary of Defense, I was responsible, under the so-called Nunn-Lugar program, for executing that assistance. And I decided to carry out that responsibility by personally overseeing the dismantlement at Pervomaysk, Ukraine, which had been the largest ICBM site in the Soviet Union.

On the first trip I was taken to the control center, where the officers in charge conducted a practice countdown for me. It was like show and tell. What do you do for show and tell? A practice nuclear countdown! Never has the full horror of the Cold War been clearer to me than standing there watching those young officers practice launching 700 nuclear warheads at targets in the United States.

On my second and third visits, I oversaw the dismantlement of these missiles and their silos. On my last visit to Pervomaysk, I joined with the Ministers of Defense of Russia and Ukraine and we planted sunflowers at the site of what had been a deadly missile field. (Applause)

(Video news footage quoting Perry in Russia): "I told the couple who had been living here about the line from Voltaire's Candide: "The most important thing we can do in life is to cultivate our garden and to live in peace.' They are cultivating their garden now, and we will live in peace."

Ministers of defense planting sunflowers! And the sunflowers really did grow there, too. I thought this was something symbolic. But I've since learned that sunflowers are very important in Ukraine, the most important cash crop. So there was no symbolism at all as far as the Ukrainians were concerned.

In all, during my time in office, I helped bring about the dismantlement of about 8,000 nuclear weapons in the United States and the Former Soviet Union, and assisted three nations, Kazakhstan, Belarus, and Ukraine, to go entirely non-nuclear.

That was the first time since the dawn of the nuclear age that nuclear proliferation had actually been reversed.

Also in my last year in office, I steered the Comprehensive Test Ban Treaty through the Pentagon so that President Clinton could sign it. So 1997, when I left office, I believed that we were well on the way to mitigating the deadly nuclear legacy of the Cold War.

But since then the effort has stalled---and even reversed. Two years after I left office, the Senate rejected the ratification of the Comprehensive Test Ban Treaty. Russia and China are now building new nuclear weapons. North Korea has built a small nuclear arsenal, and Iran is following in their footsteps.

Additionally, Pakistan, with an arsenal of about 100 nuclear weapons, is a growing danger. The government in Pakistan is being challenged by increasingly violent Al Qaeda and Taliban militias. And to add to the danger, the Pakistani government has released AQ Kahn, the notorious peddler of nuclear technology.

At precisely the same time that nuclear weapons were proliferating, we began to see the emergence of catastrophic terrorism on a global scale.

(Video of terrorist attacks since 1993).

It is not an exaggeration to say that the conflation of these two dangers has put the world at a nuclear tipping point.

If Iran and North Korea cannot be stopped from building nuclear arsenals, I believe that we will cross that nuclear tipping point, with consequences that will be more dangerous than most people can imagine.

In the face of those ominous developments, George Shultz decided to hold a workshop at Stanford in 2006, on the 20th anniversary of the Reykjavik Summit. At that summit

meeting, Presidents Reagan and Gorbachev had seriously explored the idea of eliminating of nuclear weapons.

Reagan: We are not just discussing limits on a further increase of nuclear weapons. We seek instead to reduce their number. We seek the total elimination one day of nuclear weapons from the face of the earth.

Gorbachev: I believe that Reykjavik was the real pinnacle of international politics. That is, from the high ground we saw the prospects for a future world. And we both believed that a world of the future would prosper only if it was a world without nuclear weapons.

The two presidents actually came close to an agreement, but in the end, backed away. Most security specialists at the time were incredulous that the two presidents would even discuss such an idea, and I must admit that I was one of those skeptics.

But twenty years later, at the Stanford workshop, we concluded that we ought to revive the idea that Reagan and Gorbachev had discussed at that summit---moving towards a world without nuclear weapons. We believed that some really dramatic action was necessary to stop this terrible drift toward a nuclear catastrophe.

And four of us---George Shultz, Henry Kissinger, Sam Nunn, and myself---joined forces to write two op-eds, in January of '07 and January of '08, prescribing such dramatic actions.

We did not expect much more from our first op-ed than the usual responsive articles from academics in this field, so the actual reaction caught us by surprise. We were swamped with news articles and letters from colleagues around the world, mostly of the view that the world was overdue for a serious reevaluation of nuclear arsenals and postures.

Buoyed by this response, we scheduled meetings with senior government officials and former officials in countries all over the world, including Russia, China, India, Japan, and the UK. In response to our op-eds and visits, other former officials around the world began speaking out for a world without nuclear weapons. And as Graham [Allison] referred to us as the four horsemen, there are also four horsemen now in Russia, in the United Kingdom, in Germany, in Italy, all around the world, promoting in their own countries the same objective.

And, considering the deeply moral issues involved, religious voices began to be heard. During the Cold War, Catholic bishops and evangelicals had asked whether there could ever be a moral justification for the use---or the threat of use---of a weapon so deadly. Most of the religious articles during the Cold War concluded that nuclear deterrence could be justified. But now, with the ending of the Cold War, it was time to reexamine that question.

So we ended 2008 with more response and more unofficial support than we had expected. But such Track 2, or unofficial, activities can only go so far---particularly in this

field, the actions that make a difference must be taken by governments, and to that point, no significant action had been taken by any government.

And then in 2009, a miracle occurred.

Just 10 weeks after he was inaugurated, President Obama made his famous speech in Prague.

Obama videotape: "The existence of thousands of nuclear weapons is the most dangerous legacy of the Cold War. Today the Cold War has disappeared, but thousands of those weapons have not. In a strange turn of history, the threat of global nuclear war has gone down, but the risk of a nuclear attack has gone up. I state here clearly and with conviction, America's commitment to seek the peace and security of a world without nuclear weapons."

A few months later, at a summit meeting in Moscow, President Obama and President Medvedev jointly declared their support of a world without nuclear weapons and made a commitment to move forward to a new arms treaty.

Then in September, President Obama submitted a resolution to the UN Security Council supporting nuclear disarmament. Amazingly, the resolution was approved 15 to 0! How often does a Security Council resolution get a 15-0 vote?

And governments all over the world began to weigh in. The United Kingdom, Norway, Italy and Finland are all sponsoring non-proliferation projects.

The governments of Japan and Australia formed an International Commission on Nuclear Non-Proliferation and Disarmament, of which I was the American commissioner.

So 2009 was a year of unprecedented actions that none of us could have predicted at the beginning of that year.

It truly was an Annus Mirabilis---a "Year of Miracles".

That term has been used to describe two different miraculous years in science: 1666, when Newton published his landmark papers on the theory of gravitation and optics; and 1905, when Einstein published three remarkable papers, including his famous paper on the theory of relativity.

In my lifetime, I can remember Vaclav Havel calling 1989 an "Annus Mirabilis", as all of the Eastern European nations gained their independence, essentially bloodlessly. And of course that year was culminated by the fall of the Berlin Wall.

I do not mean to suggest that the developments of 2009 are equal in significance to those remarkable events, but considering my expectations going into 2009, I really do consider it a year of miracles.

Indeed, I am moved to quote Victor Hugo, who, more than a century ago, wrote: "More powerful than the tread of mighty armies is an idea whose time has come."

But if 2009 was a year of miracles, 2010 had to be a year of action. And in fact, the action exploded in one memorable week in April:

On Tues morning of that week President Obama released his eagerly-awaited Nuclear Posture Review. On that Tuesday afternoon, President Obama held the premiere showing of the movie, "Nuclear Tipping Point," in the White House theatre; his guests were the four of us who had produced the movie and our spouses, as well as his national security team.

The president introduced the movie by saying that our views on nuclear weapons had guided his own views, and urging his security team to be similarly guided by them. We could hardly have asked for a better premiere of that movie.

On Wednesday, President Obama left for Prague to meet with President Medvedev; On Thursday, they signed the New START Treaty. On Friday, Obama and Medvedev held a bilateral meeting.

On Saturday and Sunday, 47 world leaders arrived in Washington, and on Monday and Tuesday, they met in a Nuclear Summit held for the purpose of strengthening worldwide measures for the control of fissile material.

What a week!

Two weeks later the Senate held its first hearing on the New START treaty, with the first two witnesses being Jim Schlesinger and myself. The hearing was generally friendly; indeed, the chairman and ranking members, Senator Kerry and Senator Lugar, could not have been more gracious, but there was formidable opposition to the treaty in the Senate, led by Senator Jon Kyl.

If the Senate had not ratified New START, the US would have forfeited its right to provide any leadership, and the global nuclear disarmament effort would simply have fizzled out. But in December, the Senate, against the expectations of many astute political observers, ratified the New START treaty with 71 favorable votes. The only time this Senate has voted by 71 votes in favor of anything. This was made possible by 13 Republicans going against their leadership and voting for ratification.

The following month the Russian Congress also voted for ratification.

So where do we go from here---what does the future hold for nuclear disarmament?

The next challenge will be getting the Comprehensive Test Ban Treaty ratified, which will be even more difficult than the ratification of New START, since ratification of has already been rejected by the Senate in 1998.

Ratification will depend on convincing the Senators on two points that were in contention back in 1998: That the extensive array of seismic monitors built since 1998 can provide adequate verification; and that the Stockpile Stewardship Program, also started in the late 90s, can provide adequate confidence in our nuclear stockpile without testing.

I believe that both of those points can be successfully argued.

If we succeed in CTBT ratification, the next challenge will be the negotiation of a follow-on treaty to New START.

Here, progress will require:

--Cooperation on ballistic missile defense, which is both the political and technical challenges.

--Verification of warheads. Verification of missiles is much easier. This poses very significant technological challenges.

--And the inclusion of tactical nuclear weapons, which is both a political and technological challenge.

And perhaps the greatest challenge is successfully curtailing the nuclear weapon programs of North Korea and Iran.

All of these goals present daunting political challenges. But as daunting as these near-term goals are, they are the necessary gatekeepers to achieving real progress in the field of nuclear disarmament.

The International Commission on nonproliferation and Nuclear Disarmament designated them as Phase 1 of a comprehensive disarmament program, and called for them to be achieved by 2012, which is right around the bend.

In the second phase, the ICNND called for no less daunting actions: They called for the United States and Russia to dismantle their nuclear weapons (including the weapons in reserve and in storage, not covered by the present treaties) at an aggregate rate of 1,500 per year until they are down to what they call the "minimization point."

And at that point, the world would take a deep breath and decide whether we are ready to go all the way to zero.

I know that most people I have talked to believe that moving towards a world without nuclear weapons is, in fact, Mission Impossible. And I must concede that the skeptics among you have the history of the last few decades on your side.

But I would like to conclude my talk by giving you the views of some prominent pragmatists who hold more hopeful views on nuclear disarmament.

I will start by paraphrasing President Kennedy.

"Too many of us think", he said, "that it is impossible to contain proliferation. But that is a dangerous and defeatist belief. It leads to the conclusion that nuclear terrorism or nuclear war is inevitable; that we are gripped by forces that we cannot control."

"We need not accept that view. Our problems are man-made; and therefore they can be solved by man."

To which I would add that while the problems were madmade, the solutions will come from women as well as men.

Sam Nunn has spent most of his career working to strengthen American security, and fully understands the huge task ahead of the world in nuclear disarmament.

He compares the task to that of climbing a tall mountain, whose top is obscured by clouds.

Nunn: the way I view it is that if you view the goal in getting to zero as the top of the mountain in terms of nuclear weapons, then we can't even see the top of the mountain today. We're heading down, we're not heading up. It's going to take a long time to see the top of the mountain. But I believe we have an obligation to our children and to our grandchildren to build paths up the mountain, to get other people to go up the mountain with us b Because this cannot be unilateral.

Kissinger: We don't quite know what the mountaintop will look like. We don't quite know how to get to the mountaintop. We don't make any proposals that we cannot justify. But we are determined to go up that mountain.

Nunn: if we don't give them that hope – those of us who have been through the cold war – if we don't give them that hope, that vision, then it's going to be extremely difficult to prevent the kind of nuclear nightmare that is looming on the horizon.

George Shultz and Henry Kissinger have also thought deeply about the difficulty of the path to nuclear disarmament.

Here is a brief video encapsulating their views:

Shultz: A man named Max Kampelman, who had been my counselor when I was secretary of state, made an eloquent statement emphasizing the importance of talking about what ought to be. If you are constantly mired in what is, and you never look at what ought to be, you're never really going to get anywhere. And he used the Declaration of Independence as

an example: all men are created equal – in 1776, are you kidding me? We had slaves. Women couldn't vote. You had to have property to vote. We had the 'ought' up there. And gradually over time, with a lot of pain, the is has come closer to the ought. And we ought to have a world free of nuclear weapons.

Kissinger: once nuclear weapons are used, we will be driven to take global measures to prevent it. So some of us have said, let's ask ourselves, if we have to do it afterwards, why don't we do it now?

Well, I have given you the views of Kennedy, Shultz, Kissinger and Nunn. But my benediction to you will be my personal views---a summary of where my journey on the less-travelled road has taken me:

(Perry interview from Nuclear Tipping Point) " Over the long term, we need to be heading toward the total elimination of nuclear weapons. And over the short term, we need to be taking steps to to reduce the danger that the nuclear weapons we already have could be used. This is such an important problem in my mind that it dwarfs all other considerations. And I have myself decided to devote the balance of my career to working to achieve that goal.

So, for the balance of my career, I expect to be traveling to Washington every other week, as well as making extended trips to Delhi, London, Tokyo, Seoul, Moscow and Beijing instead of settling down to enjoy my golden years in that garden of Eden known as Palo Alto.

I do this because I believe that time is not on our side. And because, having helped to build the nuclear arsenal, I know better than most how to dismantle it, and I believe that I have a special responsibility to do so.

Indeed, I want to express this last thought through more lines from Robert Frost:

"The woods are lovely, dark and deep;
But I have promises to keep;
And miles to go before I sleep;
And miles to go before I sleep."

Thank you.

William J. Perry

(Note: this transcript reflects remarks as delivered. Go to the website below to view the webcast of the entire Forum event, including introductory remarks by moderator Graham T.

Allison, director of the Belfer Center for Science and International Affairs, and by Professor Robert Pastor, co-director of the Center for North American Studies at American University, and the question-and-answer session with William Perry.)

<http://www.iop.harvard.edu/Multimedia-Center/All-Videos/A-public-address-by-the-Honorable-William-Perry>