

Ambassador Thomas Graham, Jr.

Nuclear Weapon Dangers and Challenges

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Soon after the end of World War II, as a central symptom of the Cold War, a vast nuclear arms race between the United States and the Soviet Union came into being. The United States conducted its first atomic weapon test in July, 1945 and a few weeks later used nuclear weapons against the Japanese cities of Hiroshima and Nagasaki. The Soviet Union carried out its first nuclear test in 1949. The bomb used against Hiroshima had an explosive yield of 12.5 kilotons, the equivalent of 12,500 tons of TNT. This weapon completely devastated the city of Hiroshima, killing some 200,000 people out of a total population of approximately 330,000. But with the first thermonuclear weapon tests by the United States and the Soviet Union just a few years later in the early 1950's, nuclear test explosions were in the megaton range- one million tons or more TNT equivalent- roughly 1000 times more powerful than the bomb that destroyed Hiroshima.

During the Cold War and thereafter, the United States built some 70,000 nuclear weapons, the Soviet Union around 55,000, and at the peak the United States had 32,500 weapons in its stockpile, the Soviet Union some 45,000. And there was a perceived risk that these weapons might simply spread all over the world. During the Kennedy Administration there were predictions that there could be in the range of two dozen nuclear weapon states, with nuclear weapons integrated into their national arsenals by the end of the 1970's. President Kennedy in response to a reporter's question in March of 1963 said "...personally I am haunted by the feeling that by 1970...there may be 10 nuclear powers instead of 4, and by 1975, 15 or 20... I regard that as the greatest possible danger and hazard."

If such anticipated proliferation had in fact happened, there could indeed be significantly more than two dozen nuclear weapon states in the world today. Mohamed El Baradei, the Director General of the International Atomic Energy Agency, expressed this concern in 2004 when in a speech in Washington DC, he said, “The danger is so imminent...not only with regard to countries acquiring nuclear weapons but also terrorists getting their hands on some of these nuclear materials- uranium or plutonium.” Director General El Baradei said in another speech around the same time that today more than 40 countries now had the capability to build nuclear weapons. Thus, under such circumstances with this many nuclear weapon states, potentially every significant conflict could have brought with it the risk of going nuclear, and it might have become extremely difficult to keep nuclear weapons out of the hands of terrorist organizations, they would have become so widespread. Illustrating this danger of nuclear weapon proliferation and the threat of terrorist acquisition, former U.S. Defense Secretary William Perry, a scientist not given to exaggeration, has often said that in his judgment nuclear terrorism which could involve a nuclear detonation on U.S. soil is the gravest security threat that we face.

When President Kennedy became so concerned about nuclear weapon proliferation, the United States had 22,229 nuclear weapons in its arsenal, the Soviet Union 2,450 and the United Kingdom 50. The total is a smaller number of nuclear weapons than exist in the world today. While from the earliest of days in the nuclear era it had been clear that it was necessary to prevent the spread of nuclear weapons, early attempts to prevent proliferation of nuclear weapons did not succeed. A watershed was in 1961 when the United Nations General Assembly unanimously passed a resolution, introduced by Ireland, which called on all states to conclude an international agreement prohibiting the transfer or acquisition of nuclear weapons.

It was hoped that this resolution would pave the way for rapid agreement on a treaty constraining further nuclear proliferation. However, this was not to be the case. Nothing was done for four years. However, in 1965 the UN General Assembly took up the subject again. A new resolution was passed which over the next few years proved to be the blue print of the Nuclear Nonproliferation Treaty, The NPT. The NPT was signed in 1968 and

entered into force in 1970, and came to be recognized as the principal reason- along with the parallel extended deterrence policies of the United States and the Soviet Union- that President Kennedy's darkest fears were not realized during the Cold War.

Thus, the nuclear weapon proliferation so rightly feared by President Kennedy did not happen. Indeed since 1970 and the entry into force of the NPT, at least until now, there has been very little nuclear weapon proliferation. In addition to the five nuclear weapon states recognized by the NPT- the United States, Britain, France, Russia and China, three states, India, Pakistan and Israel and perhaps North Korea have built nuclear weapon arsenals- but India and Israel were already well along in 1970. This is far from what President Kennedy feared.

But the success of the NPT was no accident. It was rooted in a carefully crafted central bargain. In exchange for a commitment from the non nuclear weapon states (today more than 180 nations, most of the world) not to acquire nuclear weapons and to submit to international safeguards to verify compliance with this commitment, the NPT nuclear weapon states pledged unfettered access to peaceful nuclear technologies and undertook to engage in nuclear disarmament negotiations aimed at the ultimate elimination of their nuclear arsenals. It is this basic bargain for the last three decades has formed the central underpinnings of the international non proliferation regime.

However, one of the principal problems with all this has been that the NPT nuclear weapon states have never fully delivered on the disarmament part of this bargain and in recent years it appears to have been largely abandoned. The essence of the disarmament commitment in 1968 and thereafter was that pending the eventual elimination of nuclear weapon arsenals the nuclear weapon states would: agree to a treaty prohibiting all nuclear weapon tests, that is a comprehensive nuclear test ban, a CTBT; negotiate an agreement prohibiting the further production of nuclear bomb explosive material; undertake obligations to drastically reduce their nuclear arsenals; and give legally binding commitments that they would never use nuclear weapons against NPT non-nuclear weapon states. The CTBT is of special importance. There was one specific measure that many non nuclear weapon delegations negotiating the NPT wanted

included in the treaty as an objective above all others, a comprehensive test ban, a CTBT;- the idea was that if nuclear weapon states could not significantly reduce their nuclear weapon stockpiles in the near future, at least they could stop conducting explosive tests of nuclear weapons. Sweden proposed for the January 1968 draft treaty a reference to seeking the discontinuance of all test explosions of nuclear weapons and it was included in the final treaty text as preambular paragraph 10. Ever since, progress toward the Test Ban has been the litmus test of NPT nuclear weapon state willingness to meet their NPT nuclear disarmament obligations in the eyes of the non-nuclear weapon states. However, none of the disarmament elements of the basic bargain has been actually accomplished over 35 years later. The CTBT was negotiated and signed in 1996 but a U.S. Senate dominated by conservative Republican political philosophy rejected it in 1999, thereby greatly damaging the NPT. While there were nuclear weapon reductions in the treaties negotiated in the past, there have been no negotiated real reductions of nuclear weapons since 1994; there has never been any progress toward an agreement prohibiting the further production of nuclear explosive material for weapons and even though political commitments were made by the NPT nuclear weapon states in 1995 in effect not to use nuclear weapons against their NPT non-nuclear weapon treaty partners, the national policies of the United States, Britain, France and Russia are the opposite-- holding open this option.

And now the other side of the bargain has begun to fall apart. India and Pakistan eroded the NPT from the outside by each conducting a series of nuclear weapon tests in 1998 and declaring themselves to be nuclear weapon states. India, Pakistan and Israel maintain sizable unregulated nuclear weapon arsenals outside the NPT. North Korea withdrew from the NPT in 2003, may have built up to eight to ten nuclear weapons and has conducted a nuclear weapon test. North Korea has agreed in principle to return to the NPT and to negotiate an end to its nuclear weapon program and progress has been made toward this objective, but probably the elimination of their weapons is years away. And now North Korea has at least temporarily terminated their participation in disarmament discussions. The A. Q. Khan secret illegal nuclear weapon technology transferring ring based in Pakistan has been exposed but who can be sure that we have seen more than the tip of the iceberg? Iran is suspected of having a nuclear weapon program and admitted in

late 2003 that contrary to its IAEA safeguards agreement it failed to report its acquisition of uranium enrichment technology.

And why might Iran want the nuclear fuel cycle and the attendant option to construct nuclear weapons? The nuclear program is very popular in Iran. It appears that some countries believe that ultimately the only way that they can gain respect in this world, as President Lula of Brazil declared during his first election campaign, is to acquire nuclear weapons. During the Cold War, nuclear weapons distinguished Great Powers from other countries. The permanent members of the Security Council are the five NPT recognized nuclear weapon states. Forty years ago Great Britain and France both asserted that status was the real reason that they were building nuclear weapons. India declared in 1998 that it was now a big country; it had nuclear weapons. This high political value of nuclear weapons which it was a primary purpose of the NPT to change has in fact not changed since those days of the Cold War.

In 1995, in the process of negotiating the permanent extension of the NPT at the 25 year conference envisioned by the treaty for this purpose, the basic bargain, including its nuclear disarmament elements was reaffirmed and other elements added this recommitment was again reaffirmed at the 2000 NPT Review Conference. However, in 2005 the NPT Review Conference was a complete failure on all issues. Thus, forty years after signature of the NPT and 38 years after its entry into force, the balanced obligations between NPT nuclear weapon states and non nuclear weapon states that comprise the basic bargain have not been achieved on the part of the NPT nuclear weapon states. The NPT nuclear weapon states in general and the United States in particular, thus stand in the position of never having accomplished their obligations that compose their part of the NPT bargain that underlines this treaty regime which is essential to their security.

The NPT is essentially a strategic international political bargain, it is not a gift from the non-nuclear weapon states. Few deny that the NPT is in crisis. The question is how long can it remain viable as an unbalanced treaty with one-half of its basic strategic bargain unrealized and the other half unraveling. It is true that the norm of nonproliferation runs deep after forty years. It may be that the NPT can limp along for some years with only limited further proliferation or maybe not. The world community

could be on the verge of a new wave of proliferation, yes it will take a strong NPT regime to prevent it. And it also would take close U.S.-Russian cooperation to prevent further nuclear weapon proliferation. Our relationship with Russia is the most important international state to state relationship that we have. The 111<sup>th</sup> Congress should keep this in mind when it debates further NATO expansion to include states that once were a constituent part of the Soviet Union. We must take care to try to understand the way Russia sees the world and not drive the one state essential to the U.S. objective of a peaceful and stable 21<sup>st</sup> Century into a corner.

But the United States to a large degree may have it within its power to take a long step toward returning the NPT to the viability that it appeared on its way to enjoy after the permanent extension of the NPT in 1995. If the United States could ratify the CTBT, the most important disarmament obligation of the nuclear weapon states by far, which has languished in the hands of the Senate for over a decade, this would open the door to its entry into force and reinvigorate the NPT community. The President has expressed his support for ratification of the CTBT during the recent political campaign. This should be the highest priority of U.S. nuclear policy this year, on this may hang the future viability of the most important international security treaty on the books. In this area the U.S. Senate approving CTBT ratification is one of the most important things the 111<sup>th</sup> Congress, or any other Congress, can do.

But what are the chances of it or any major nuclear initiative during this time of economic crisis? In being honest one has to admit not good. Economic policy, because the stakes are so high, and because it will be so difficult to return our country to prosperity after all the damage that has been done, is likely to take all the oxygen out of everything else. Also, the CTBT is a subject not free from controversy as we remember well from its Senate defeat in 1999. The Secretary of Defense and the Secretary of State as well as the President are all on record supporting CTBT ratification, but there are many other international security issues which demand attention and the investment of political capital. One has only to name some of them to make the point; Gaza, Palestine, Iraq, Afghanistan, and the most dangerous of all Pakistan.

Also the perceived need for broad Republican support for the economic stimulus bill could raise the level of difficulty facing an effort to ratify CTBT. For example, if the Obama Administration approaches Senator Kyl of Arizona concerning support for the stimulus package, either in his personal capacity or as minority Whip; what is his quid pro quo likely to be given his leadership of defeat of ratification in 1999 and his continued active hostility to the CTBT? On the plus side his colleague from Arizona did say during the Campaign that he would “look at” this issue.

Another important issue in the U.S. nuclear policy field that it is hoped that the Administration will address is that of zero nuclear weapons. The idea of serious movement toward the elimination of nuclear weapons was eloquently advanced by former Secretaries of State George Schultz and Henry Kissinger, former Secretary of Defense Bill Perry and former Chairman of the Senate Armed Services Committee Sam Nunn in their two op-ed articles in the Wall Street Journal in 2007 and 2008, as well as other supporters of the Hoover Institution process. The two articles evoke President Reagan’s view that nuclear weapons are possibly destructive of life on earth and must be abandoned and note that this objective is the more important in a world where nuclear deterrence no longer works and in which international terrorism and rogue states pursuing nuclear weapons are real threats. But as far as U.S. government action on this matter is concerned, policy formulation should await the outcome of the new Nuclear Weapon Posture Review- which the Pentagon will conduct this year. Before the policy issue of zero nuclear weapons is addressed – a position also supported by the President– it is important to have a new nuclear weapon policy in place that unequivocally states that the only role of nuclear weapons today is to deter nuclear weapons in the hands of others. That would then support a policy discussion concerning how best to contemplate future negotiations toward zero nuclear weapons. But as a policy matter the 111th Congress should press for action on this as well by holding hearings on the issue.

But this Review likely will only be completed by the end of this year. In the interest of U.S. security generally and the cause of zero nuclear weapons in particular, it is of paramount interest that the NPT regime not further deteriorate in the meantime or later. Overwhelmingly the best first steps to ensure this is to seek ratification of the CTBT, and

to seek it this year before we are too close to the 2010 elections to have a chance to gain the requisite Republican votes. And while the U.S. National Laboratories likely will have objections as in the past, after 10 years the answers to those objections are available. As difficult as this will be, it can be done by the Congress. And despite what some may say, it is possible for this Administration to do more than one thing at once; it is capable of doing economic policy and pressing for CTBT ratification in the same time frame. I would hope that we can all commit to supporting a vigorous educational program with the Congress and the public this year to get this done.

If the United States and the world community are to avoid a return of the nightmares that haunted President Kennedy, if the NPT, the most important international security treaty of this era is to be returned to viability, if the nuclear twin dangers of further proliferation and nuclear terrorism are to be overcome, we need the CTBT. The ratification of the CTBT is something that we can achieve and that we must achieve in this Congress, so let's try to make it happen.