

## Nuclear Nonproliferation and Nuclear Terrorism

*Thomas Graham, Jr.\**

Disarmament and arms control is not a new issue. In 1139, at the Second Lateran Council, Pope Innocent II, outlawed the crossbow declaring it to be “hateful to God and unfit for Christians.” Then, the crossbow and longbow were eclipsed by the destructive firepower of the cannon. The Church also banned the rifle when it appeared, but this action was quickly overtaken by events. Military technology continued to develop at a rapid pace over the centuries. Diplomacy and arms control efforts could not keep up with the pace.

Everything changed in 1945, with the advent of the atomic bomb. For the first time humankind possessed a weapon with which it could destroy itself. Disarmament efforts gradually gained momentum, and over time, a web of international treaties and agreements were constructed limiting the development and inhibiting the spread of nuclear weapons as well as chemical and biological weapons. There is no question that these efforts changed the course of history.

Nuclear weapons are truly a thing apart. The atomic bomb used against Hiroshima in 1945 was 14 kilotons, the equivalent of fourteen thousand tons of TNT explosives. A few years later, the United States and the Soviet Union were testing nuclear weapons in the megaton range, the equivalent of a million tons of TNT explosives. The United States deployed missiles around the United States with a nine megaton warhead. Just by way of reference, one megaton is the equivalent of a freight train loaded with TNT that stretches from New York to Los Angeles. The United States routinely carried bombs on its B-52 bombers with the explosive power of 25 megatons. Thus, one of the United States’ bombers carried more explosive power than used by all the sides in World War II.

Soon, a vast nuclear arms race was underway. The Soviet Union built 45,000 nuclear weapons, and the United States built more than 30,000. This effort eventually bankrupted the Soviet Union and cost the United States in excess of \$5.5 trillion. However, in the 1960s, it appeared as if these weapons would spread all over the world. In 1962, there were reports estimating that there would be 25-30 nuclear weapons States with nuclear weapons integrated into their national arsenals by the end of the 1970s. If this had happened, there would likely be more than 50 nuclear weapon States today. This would have created a nightmarish world, one in which every conflict would run the risk of becoming nuclear. It would have been impossible to keep these weapons out of the hands of terrorists because they would have been so widespread, and the continued existence of our civilization would have been in the balance every day.

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\* Chair, Lawyer Alliance for World Security Special Counsel to Morgan, Lewis & Bockius, Washington, D.C.

The only reason that this did not happen, in my judgment, was the negotiation of the Nuclear Non-Proliferation Treaty (“NPT”) in 1968, its entry into force in 1970, and its permanent extension in 1995. It converted what had been an act of national pride (the acquisition of nuclear weapons) into an act of international outlawry. In exchange for the agreement between the five nuclear weapon States to specific disarmament commitments and nuclear arm control, the rest of the world has agreed never to acquire nuclear weapons. To see the difference, review the headlines in French newspapers in 1960 when France detonated its first nuclear weapon—“Viva La France!” Contrast that with the reaction to India’s first nuclear explosion in 1974, which received world-wide condemnation.

However, we must never forget that the NPT came at a price in arms control commitments for the nuclear weapon States (the United States, Russia, France, the United Kingdom and China). For example, the nuclear weapon States were required to proceed with deep reductions in nuclear weapons leading to their elimination, a comprehensive nuclear test ban treaty, and a pledge never to use nuclear weapons against non-nuclear weapon NPT parties. Today, almost the whole world qualifies as non-nuclear weapon, totaling approximately 182 nations.

International terrorism today is the most dangerous threat that we face. However, more than fanaticism and organization, the ultimate threat that it presents is potential terrorist access to nuclear weapons. The destruction by nuclear explosives of, say, New York and London, would so cripple civilization as we know it that it would take a generation to recover. The threat is growing as technology and material are more accessible. In the 1980’s, supercomputers were used in making atomic weapons, but were only in the possession of a few governments. Today, equivalent computers can be bought by anyone in a computer store for example, in Hong Kong. Nuclear weapon technology is 60 years old and is no more complicated than a jet engine. The gun barrel technology used to make the Hiroshima bomb is so simple, a crude weapon made this way does not even need to be tested.

The two types of nuclear explosive material or fissile material are highly enriched uranium (“HEU”) and plutonium. HEU is easier to handle, but plutonium can be made into a bomb with much less material. Indeed, a mass of plutonium about the size of a softball can destroy a city. One potential source of nuclear explosive material is North Korea. North Korea may have enough plutonium for one or two bombs now, but by chemically reprocessing existing spent reactor fuel they could make five or six bombs in a few months. In addition, North Korea has a long history of selling things they make to whoever will buy them. An administration source was quoted in the *Washington Post* recently to the effect that North Korea having plutonium for nuclear weapons, “fundamentally changes everything. Literally, every city on the planet would be threatened.”

North Korea was a NPT party, but has recently renounced the Treaty. I believe that they can be persuaded to return to the Treaty and terminate their nuclear weapon program, but the only way this can happen is by direct face-to-face United States and North Korea negotiations. Force is not an option here. In 1994, when the United States threatened to attack their nuclear facilities during a previous crisis, North Korea responded that if that the United States proceeded with their threat, they would turn Seoul into “a sea of fire.”

Russia maintains a huge stockpile of fissile material left over from the Cold War, and poses just as great a threat as does North Korea. During the Cold War, the Russians made 45,000 nuclear weapons and enough material for 90,000 more. The material in weapons is well-guarded, but the stockpiled HEU and plutonium is less so. Shortly before I left government, I was debriefed by a team of inspectors from the General Accounting Office, the watchdog agency of the Congress, who had just come back from Russia where they inspected storage sites for fissile material built with money appropriated by Congress under the Nunn-Lugar program to safeguard and eliminate fissile material in Russia. They had visited a storage site in Russia where the HEU was stored in the form of hockey puck-sized wafers stacked in long rows. There were two guards at the facility with the shift changing every eight hours. The inspectors noticed that when the guards shifts ended, and the guards went home they often would slip a “hockey puck” or two into their pockets. Two such wafers could not make a bomb but 10-12 could.

In 2000, Senator Howard Baker and Lloyd Cutler authored a report in which they said that this threat from Russia is so serious, we should undertake a crash course to eliminate it while we still can. They recommended allocating \$30 billion to this effort, \$3 billion a year for ten years. Over the years, we have been spending about a third of what Baker and Cutler proposed on this problem totaling approximately \$1 billion a year, while we spend \$7 billion a year on missile defenses designed to guard us against the least likely major threat we face.

In 1994, while leading U.S. Government efforts to make permanent the NPT, a colleague and I went to South Africa to solicit their vote. The second day we were there, we were given a tour of the former South African nuclear weapon program infrastructure. They took us to the building where they assembled the weapons, and to the actual room where the work was done. They said, “look around you, nothing has changed.” There was nothing in that room you would not find in a high school machine shop. They showed us the cases in which they transported the weapons so we got an idea of their size. They would have easily fit in the back of a panel truck.

After our tour was over, they said to us,

There is a reason we are showing you this. You are the first Americans to see this except the two on the international inspection team. We built six atomic weapons and had a seventh underway. We never had more than

150 people working on this including the janitor. We spent \$25 million and no one knew of it. We used the “gun barrel technology” so we didn’t need to test the weapons. We knew they would work and would have about a 20 kiloton yield, 50 percent greater than Hiroshima. If the fissile material can be acquired, the rest is easy. You don’t need a big infrastructure. Most countries can do it, and many sub-national or international organizations can do it. So watch out!

Most international terrorism today is based on religious and ethnic hatred, much arising out of conflict among the three great faiths of Abraham—Judaism, Christianity, and Islam. But, for nearly 500 years, Judaism, Christianity, and Islam co-existed more or less peaceably. This changed in 1095 when Pope Urban II called for the First Crusade. The hatred and suspicion unleashed and the subsequent bloody expeditions are still with us, and afterwards the people of the three faiths regarded one another with hostility punctuated with holy wars and massacres.

But surely, it is time to bury this 1,000 year old hatchet. The three faiths have a common heritage, worship the same God, and have much more in common than they have differences. All three of these religions are religions of peace, as their founders and their subsequent great leaders have many times reminded us. Terrorism threatens us all and in combating it, the United States must be sensitive to religious and cultural differences and try to understand the world as others see it.

On September 11, 2001, the true enemy of world civilization today—international terrorism fueled by religious and ethnic hatred—unequivocally revealed itself. As horrible as the attacks on the World Trade Center and the Pentagon were, they would have been orders of magnitude worse if a nuclear explosive device had been involved. As Prime Minister Blair of the United Kingdom, President Chirac of France, and Chancellor Schroder of Germany stated in their joint op-ed article supporting U.S. ratification of the Comprehensive Test Ban Treaty in the *New York Times* of October 1999, “nuclear proliferation will remain the principal threat to world safety” in the twenty-first century. To this, the only long-term effective response is increased and intensive international cooperation and commitment to the rule of law with an emphasis on an understanding of cultural and religious differences.

However, in recent years the United States has moved toward a unilateral worldwide confrontational strategy rather than one of cooperation. For over 50 years, the United States pursued a balance of power policy among the Great Powers—the United States, Russia, China, and Europe. The North Atlantic Treaty Organization and the U.S.-Japan Alliance are among the institutions and partnerships created by this grand strategy whose centerpiece was containment of the Soviet Union. At the same time, the United States pursued a world order built on rules and international treaties that permitted the expansion of democracy, the enlargement of international security, free market economies, and free trade.

Within this international order, based on these twin policies that we created, in addition to keeping the peace, we gave political cover to countries throughout the world to adopt the American position, but doing so by joining international institutions and multi-lateral treaty regimes like the World Trade Organization and the NPT regime.

We have moved away from this world that we established. We have rejected new treaty arrangements important to key allies such as the Kyoto Protocol and the International Criminal Court, instead of attempting to amend them or leave them quietly “on the shelf.” We have refused direct negotiations with North Korea, and we have renounced treaty arrangements that are important to the world community such as the Anti-Ballistic Missile Treaty and a verification and inspection Annex to the Biological Weapons Convention.

John Ikenberry is a distinguished professor of geopolitics at Georgetown University. Referring to this new policy approach, which he calls “neoimperial,” he says that:

[I]t threatens to rend the fabric of the international community and political partnerships precisely at a time when that community and those partnerships are urgently needed. It is an approach fraught with peril and likely to fail. It is not only politically unsustainable, but diplomatically harmful. And if history is a guide, it will trigger antagonism and resistance that will leave America in a more hostile and divided world.

An example of what professor Ikenberry is referring to is the National Strategy Document of September 2002, in which the Administration announced a policy of preemptive, preventive, and perhaps as it will turn out, potentially nearly endless war. This policy over time, could strain our economy and our armed forces close to the breaking point, and it appears to be destructive of any concept of rule of law among the states of the world community. A December 2002 addendum suggests that force rather than cooperation and treaty arrangements is to be the principal means to combat the threat of the proliferation of nuclear weapons and other weapons of mass destruction.

The Pentagon Nuclear Posture Review submitted in late 2001 emphasizes the value of nuclear weapons to the United States. This review implies that the United States might use nuclear weapons not only against Iraq, Iran, North Korea, Syria, and Libya, in violation of the NPT pledge prohibiting use of nuclear weapons against NPT non-nuclear weapon states, but also against Russia, as well as China in defense of Taiwan. This, combined with the National Strategy Document, implies that the United States might under certain circumstances engage in preemptive or preventive war, possibly even through the use of nuclear weapons. Additionally, the United States has alienated and offended traditional Allies in the last two years, and these actions are now culminating in the debate over Iraq. It would be a positive step to destroy the regime of Saddam Hussein, if

accomplished pursuant to international law and the United Nations system, but let us have some civility and understanding for our traditional friends and Allies.

As evil, vicious, and corrupt as Saddam Hussein is, he is not the principal threat. As former military leaders, including General Norman Schwarzkopf and Wesley Clark—who led our last two major wars—have suggested, the main threat is Al-Qaeda and other international terrorist organizations. These organizations combined with the threat of nuclear proliferation should be our principal focus.

What is the best tactic to counteract these dangers? Of course, increased vigilance and improved intelligence capabilities are essential. However, the threat of force as the principal tool to combat proliferation of weapons of mass destruction, as implied by the White House Strategy Documents, cannot be and will not be the entire long-term answer. Military action can only do so much. The answer to the threat of catastrophic terrorism should evolve social, political and diplomatic as well as military action. In the larger sense, opposition to disease, poverty, and machine gun cultures around the world are as important to national security as military strength. We must be certain that in developing policies, the United States is not unduly influenced by purely military considerations. Perhaps, these words from President Eisenhower on January 10, 1961 are relevant:

In the councils of government, we must guard against the acquisition of unwarranted influence, whether sought or unsought by the military— industrial complex. The potential for the disastrous rise of misplaced power exists and will persist.

We must never let the weight of this combination endanger our liberties or democratic processes.

International cooperation on security, social issues, and international law, specifically the NPT regime will remain for the indefinite future the best hope for success against the gravest threat that we face—international terrorism combined with the potential of nuclear weapon proliferation. We must do everything we can to reduce, not enhance the role of nuclear weapons by drastically reducing the numbers, and eliminating stock piles of fissile material, and strengthening the NPT regime. The contrast between United States policy toward Iraq, which does not have nuclear weapons and North Korea which may, will not be lost on some States, for example, Iran.

In 1992, the United Nations Security Council declared proliferation of nuclear weapons to be a “threat to the peace.” In my judgment, the following is the course the United States should pursue for the future to effectively address the threat of nuclear proliferation and nuclear terrorism: The NPT nuclear weapon States, most importantly the United States, should agree to a plan whereby truly deep reductions in nuclear weapons would be achieved over a period of years. The United States and Russia should agree to a residual level in

the range of approximately several hundred nuclear weapons each, and Great Britain, France, and China should reduce their nuclear weapons to somewhere below 100. Additionally, some appropriate arrangement must be made for the nuclear programs in India, Pakistan, and Israel (e.g., their nuclear weapons reduced to zero, but retention of nuclear explosive material on their territory monitored under International Atomic Energy Agency safeguards). The huge stockpiles of fissile material primarily in Russia, but also in the United States, should be reduced as fast as possible. In cases like North Korea, direct negotiations to address reduction should be pursued. The non-nuclear weapon States should pledge again their non-nuclear status, agree to intrusive worldwide inspection with transparency and information exchange and agree to support a call for force by the Security Council against any violator of this new treaty regime. All States should pledge their commitment to the international rule of law and the preeminence of the Security Council in keeping the peace. Such a regime would be a strong contribution to peace, security, and stability for the new century. By drastically reducing the existing number of nuclear weapons and the amount of fissile material used to make them, it would minimize the risk of terrorist acquisition of these weapons. This sounds like a tall order, and it is, but the United States should keep in mind the words of Sir Winston Churchill, written in the 1930s:

It is probabl[e]—nay certain—that among the means which will next time be at their disposal will be agencies and processes of destruction wholesale . . . and perhaps, once launched, uncontrollable. Death stands at attention, obedient, expectant, ready to serve, ready to shear away the peoples en masse, ready, if called on, to pulverize, without hope of repair, what is left of civilization.

America does not need an empire, it needs peace, cooperation, and the rule of law. In 1918, what is now Iraq (a State invented by Britain which never existed before), and what is now Iran were made part of the British Empire; the largest the world had seen. By 1922, it was clear that Britain had overreached. America should return to its historic destiny of keeping the peace and fostering the development of the community of nations, democracies, free market economy, the international rule of law, international institutions, and treaty arrangements. This is both consistent with United States' principles and our national interest. It is in this way that the twin threats of nuclear proliferation and nuclear terrorism—the only way in the end that the terrorists can defeat us—will be lifted. This way the war on terror can and will be won. When this war is finally won, perhaps then the world community will seriously consider the words of Pope John Paul II: “Violence never again! War never again! Terrorism never again!”