BAKER CENTER JOURNAL OF APPLIED PUBLIC POLICY

VOL. 1 NO. 1 | FALL 2007

Nuclear Weapons: *A Perspective In 2007*

Ambassador Thomas Graham, Jr.

Introduction

In the end, it is the rule of law that distinguishes civilization from barbarism. It has taken thousands of years for humankind to develop into a community of civilized states, many governed by law. In ancient times, governments were formed to provide security and an opportunity for economic development. Gradually, the concept of the supremacy of law over the government and society began to prevail.

Approximately 400 years ago, societies began to promote international order and stability by applying the rule of law to interstate relations. Since the Age of Enlightenment in the eighteenth century, the world community, more or less, has accepted the idea that governments must be subject to the rule of international law in order to be considered legitimate. Today, legal agreements between states affect much of the life of the world community. These agreements, embodied in commercial treaties, human rights accords, and agreements on the environment, have operated successfully for decades. However, bringing the rule of law to the field of international security and arms limitation has proven to be far more difficult.

Arms control is not new. At the Second Lateran Council, which was convened in 1139 A.D., Pope Innocent II outlawed the crossbow, declaring it to be "hateful to God and unfit for Christians." The crossbow was later overtaken in effectiveness by the English longbow. The crossbow and the longbow were then eclipsed by the destructive firepower of the cannon. The Church also banned the rifle when it appeared, but military technology continued to develop over the centuries, and diplomacy and arms control efforts could not keep pace. The relationship between weapons technology and arms control changed forever with the advent of the atomic bomb in 1945. Then, for the first time, humanity possessed a weapon with which it could destroy itself.

The Atomic Age

At the start of a beautiful summer day on August 6, 1945, the atomic bomb nicknamed "Little Boy" exploded over Hiroshima. The bomb was detonated at 1,900 feet above the center of the city, 43 seconds after it left the B-29 bomber that had carried it from the American base on the island of Tinian some 1,000 miles away (Rhodes, p. 711). A crew member later recalled, "[w]here we had seen a clear city two minutes before, we could no longer see the city. . . . We could see smoke and fire creeping up the sides of the mountains" (p. 710). In the words of another crew member, Hiroshima looked like "a pot of boiling black oil" (p. 711). Still another said, "[t]he mushroom itself was a spectacular sight, a bubbling mass of purple-gray smoke, and you could see [that] it had a red core in it and everything was burning inside" (p.711).

Richard Rhodes, who collected these recollections in his Pulitzer Prize winning book, *The Making of the Atomic Bomb*,[2] noted that the temperature of the explosion site reached 5,400 degrees; people within half a mile who had been exposed were burned to bundles of black char in a fraction of a second (p.714-715). A study conducted years later found that not only human beings died at Hiroshima.

> In the case of an atomic bombing . . . a community does not merely receive an impact: the community itself is destroyed. Within two kilometers of the atomic bomb's hypocenter, all life and property were shattered, burned, and buried under ashes. The visible forms of the city where people once carried on their daily lives vanished without a trace (p. 732-733).

In August 1945, Hiroshima's resident population numbered some 280,000 to 290,000 civilians and about 43,000 soldiers (p. 713). The bomb immediately killed an estimated 140,000 people. By 1950, as radiation-related illnesses took their toll, the total number of dead rose to 200,000, or more than 60 percent of the city's population (p. 733-734). All of this devastation and death were caused by a 10-foot-long, four-ton device that unleashed an explosion equivalent to 12,500 tons of TNT (p. 701, 711).

The atomic bomb dropped over Hiroshima was based on a design so simple that it did not need to be tested at full yield. A so-called "gun" bomb, it fired one piece of nuclear material up the barrel of a small cannon where it mated with a second piece of nuclear material fixed to the cannon's muzzle. This process formed a supercritical assembly and started an explosive nuclear chain reaction (p. 462-463). Due to the simplicity of this design, the "gun" bomb lies within the reach of the governments and international terrorist organizations that can acquire the already-abundant nuclear explosive material that is needed to build it.

The Hiroshima "gun" bomb was only the second nuclear explosion that humanity conducted. The first nuclear explosion, in the New Mexico desert in April of 1945, and the third, at Nagasaki, were based on a more complicated "implosion" design. The "implosion" design consisted of a core of nuclear material surrounded by a sphere of conventional explosives designed to implode inward simultaneously, thereby creating a nuclear explosion. The implosion design permitted the addition of considerable sophistication and potency to early nuclear weapons (p. 466-476).

The Cold War and the NPT

Not long after the nuclear explosion at Hiroshima, a vast nuclear arms race was underway. As the Cold War began, escalated, and intensified, atomic bomb yields grew from the Hiroshima bomb's 12.5 kilotons to hundreds of kilotons. With the advent of thermonuclear weapons, which are weapons based on hydrogen atoms rather than uranium atoms, the explosive yields reached into the megatons—1 megaton being equivalent to 1 million tons of TNT. To illustrate, one million tons of TNT is roughly equal to a freight train loaded with TNT that extends from New York to Los Angeles. During the 1960s, the United States deployed bombers with several weapons of 25-megaton yields; the Soviet Union deployed a missile warhead with a comparable explosive potential. At the Cold War's peak, the United States fielded some 32,000 nuclear weapons, while the Soviet Union later deployed some 45,000. Thousands of these nuclear warheads were maintained on hair-trigger alert. If launched, these warheads would have been carried by long-range ballistic missiles able to strike the target country in thirty minutes. Once in the air, these weapons could not be diverted from their targets and could not be destroyed if they were launched by mistake.

By the 1960s it appeared as if nuclear weapons would spread all over the world. But arms limitation efforts gradually gained momentum. Over time, a web of international treaties and agreements were constructed with the Nuclear Non-Proliferation Treaty (NPT) at the center of the web. These treaties inhibited the spread of nuclear, chemical, and biological weapons and limited their development. These treaties unquestionably changed the course of history. Now, sixty years into the atomic era, much has changed in the global security environment. The peril of nuclear holocaust remains, however, and has been joined by a new variation: nuclear terrorism. To avoid the kind of nightmare visited on Hiroshima—or an even worse disaster—new responses must be fashioned to counter the emerging threats on the nuclear weapons landscape.

Paul Nitze, the archetypical Cold Warrior and nuclear weapon strategist, authored National Security Council report 68 (NSC-68). As the author of NSC-68, which was commissioned by President Truman in 1950, he helped set the ground rules for the Cold War and for thermonuclear confrontation. In this Report, he wrote: "[i]n the absence of effective arms control it would appear that we had no alternative but to increase

our atomic armaments as rapidly as other considerations make appropriate" (p. 71). In addition to being an outstanding national leader, Paul Nitze was also someone who could recognize change and respond to it. His final op-ed, entitled "A Threat Mostly To Ourselves," was written in 1999 when he was ninety-two years old. In it, he said

> I know that the simplest and most direct answer to the problem of nuclear weapons has always been their complete elimination. My 'walk in the woods' in 1982 with the Soviet arms negotiator Yuli Kvitsinsky at least addressed this possibility on a bi-lateral basis. Destruction of the arms did not prove feasible then, but there is no good reason why it should not be carried out now (Nitze, 1999).

Senator Sam Nunn (2004), in an article published in the *Financial Times* in December 2004, discussed the continuing danger of nuclear weapons fifteen years after the end of the Cold War. He argued that this danger is a result of the fact that the United States and Russia still maintain, on fifteen minutes alert, long range strategic missiles equipped with immensely powerful nuclear warheads that are capable of devastating each other's societies in thirty minutes. Senator Nunn also noted that the current United States nuclear weapon policies rely on the proper functioning of the Russian early warning system, which is rapidly deteriorating. Our adherence to these policies which expect Russian technology to still function as properly today as it did during the Cold War, he warned, "risks an Armageddon of our own making" (Nunn, 2004).[4]

An incident illustrating this danger occurred on January 25, 1995, when the Russian early warning network registered a rocket launch from Norway (Graham, 2005). The Norwegian rocket was a scientific experiment, an atmospheric sounding rocket being used to conduct scientific observations of the aurora borealis. Norway had notified Russia of the proposed launch several weeks earlier, but the message had not reached the relevant sections of the military. As a result, the Russian military were unable to determine the nature of the rocket or its destination. Considering that both the United States and Russia maintained their strategic nuclear forces on alert, there were concerns within the Russian military that the rocket might be a submarine launched nuclear missile aimed at Moscow for the purpose of decapitating the Russian command and control structure. As a result, the Russian military alerted President Boris Yeltsin, the Minister of Defense, and the Chief of the General Staff. These officials then immediately convened a teleconference to determine whether it was necessary to order Russia's strategic nuclear forces to launch a counterattack. A little more than two minutes before the deadline to order nuclear retaliation, the Russians realized their mistake and stood down their strategic forces (Graham, 2005). Fortunately, Yeltsin and the Russian leadership made the correct decision. If they had not, then this truly would have been an "armageddon of our own making."

Today's Nuclear Threats: Problems and Responses

If anything, the nuclear threat is perhaps more precarious and volatile today than it was during the Cold War. As Senator Nunn pointed out, thousands of strategic nuclear weapons still remain on alert in the United States and Russia. The Russian early warning system has significantly declined in effectiveness and today consists of several ground-based radar systems which are nearing the end of their operational life and only three functional warning satellites. By contrast, the United States presently deploys 15 such satellites. Even with these older warning systems, the United States and Russia still maintain nuclear deterrent strategies and forces as they did during the Cold War. If early warning satellites or ground based radar systems detect a missile in flight, (something that is a frequent occurrence) early warning crews have only two or three minutes

to make an assessment (Nunn, 2004).

Bruce Blair (2005), in his article "Primed and Ready," illustrated this short response time by describing the United States' protocols for a response to a nuclear threat. In the event of an apparent nuclear threat, an emergency teleconference would be convened between the President and his top nuclear advisers. During the conference, a Strategic Command officer would have less than a minute to brief the President. After the briefing, the President would have up to twelve minutes to decide whether to launch a strategic nuclear strike on Russia. Russia's response operates on even tighter deadlines, due to the short flight time of missiles launched from the United States submarine fleet patrolling in the north Atlantic. These deadlines were in place when President Yeltsin decided to not retaliate in response to the Norwegian rocket in 1995. It is a significant understatement to say that continuing this precarious situation in today's world is highly dangerous and unnecessary.

In January of 2007, George Schultz, William Perry, Henry Kissinger and Sam Nunn (2007) published "A World Free of Nuclear Weapons," an op-ed article in the *Wall Street Journal*. This article stated that reliance on nuclear weapons for deterrence "is becoming increasingly hazardous and decreasingly effective." They further warned that "apart from the terrorist threat, unless urgent new actions are taken, the U.S. soon will be compelled to enter a new nuclear era that will be more precarious, psychologically disorienting, and economically even more costly than was Cold War deterrence." Signing onto this article was Ambassador Max Kampelman, President Ronald Reagan's arms control negotiator, and a number of former senior officials from the Reagan, George H.W. Bush, and Clinton administrations.

The authors pointed to a number of world leaders, past and present, who had called for changes in nuclear policy. They recalled President John F. Kennedy's statement that "[t]he world was not meant to be a prison in which man awaits his execution." They also pointed to Prime Minister Rajiv Gandhi's address to the United Nations General Assembly in 1988. In the Prime Minister's speech, he warned that "[n]uclear war . . . will mean the extermination of four thousand million [people]: the end of life as we know it on our planet earth." Additionally, the authors noted that President Ronald Reagan had called for the abolishment of "all nuclear weapons," which he considered "totally irrational, totally inhumane, good for nothing but killing, possibly destructive of life on earth and civilization." The authors also point out that, although Ronald Reagan and Mikhail Gorbachev had tried and failed to eliminate the problem of nuclear weapons at the Reykjavik, Iceland Summit Meeting in 1986, they were successful in "turning the arms race on its head." The authors call for the "[r]eassertion of the vision of a world free of nuclear weapons and practical measures toward achieving that goal" (Schultz et al., 2007).

In order to revive this vision, the authors identify a number of "urgent steps" that we must take. The authors also stressed that the Nuclear Non-Proliferation Treaty (NPT) is the centerpiece of international security because it "envisioned the end of all nuclear weapons." Among the "urgent steps" that the authors advocate is a changing of the alert status of deployed nuclear weapons to increase warning time, the continued worldwide reduction of nuclear forces, and the ratification of the Comprehensive Nuclear Test Ban Treaty (CTBT) by the United States and other key nations (Schultz et al, 2007). This article, along with its recommendations, is extremely significant because it illustrates that the national security establishment, far beyond its four distinguished authors, is coming to the realization that the world has become so dangerous that nuclear weapons are a threat even to their possessors. President Gorbachev published a similar article and the four authors each wrote him a letter of thanks.

The article's discussion of the NPT, the principal security agreement of the present era, is important in understanding possible strategies for the elimination of nuclear weapons. The NPT prohibits the further

spread of nuclear weapons and calls for the eventual elimination of existing nuclear weapons stockpiles ("The Treaty on the Non-Proliferation of Nuclear Weapons," 2005). President John F. Kennedy, who feared that nuclear weapons might proliferate all over the world, envisioned the need for such a treaty. Reports in 1962 indicated that, by the late 1970s, there would be twenty-five to thirty nuclear weapon states, each with nuclear weapons integrated into their arsenals. If this projection had materialized, there would be many more nuclear states today, and every conflict today would carry with it the risk of going nuclear. In addition, it would be impossible to keep nuclear weapons out of the hands of international terrorist organizations, which would have an even more widespread network than we see today. In September of 2004, the Director General of the International Atomic Energy Agency (IAEA), Mohamed El Baradei, estimated that while more than forty countries now have the capability to build nuclear weapons, most of these states have not done so, largely because of the NPT and other treaties ("Statement of the Director General," 2004).

Indeed, the primary reason that such nuclear weapons proliferation did not occur was because of the negotiation and implementation of the NPT in 1970. The NPT, along with the associated extended deterrence policies ("the nuclear umbrella") pursued by the United States and the Soviet Union during the Cold War, converted what had been an act of national pride into an action of international outlawry. To see the difference, one only has to compare the first French nuclear test in 1960 with the first Indian test in 1974. The French test was greeted with a great outpouring of national enthusiasm. Cries of "Vive La France" and "Vive de Gaulle" were everywhere. France was thus accepted by the international community as a member of the nuclear club ("France's Nuclear Weapons Program," n.d.). In contrast, the Indian test in 1974 was carried out, figuratively, in the dead of night, and India was condemned by the entire world (Ramana, n.d.). This change in attitude was largely brought about by the entry into force of the NPT in 1970.

Indeed, since 1970 (and at least until now) there has been very little nuclear weapon proliferation. Aside from the five nuclear weapon states recognized by the NPT — the United States, Britain, France, Russia and China, only three other states, India, Pakistan, Israel, and perhaps North Korea, have built nuclear weapon arsenals. However, India and Israel were already far along in nuclear weapons development by 1970. These limited numbers are far from the proliferation of nuclear weapons that President Kennedy so greatly 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 180 non-nuclear weapon states to refrain from acquiring nuclear weapons and to submit to international safeguards verifying their compliance, the NPT nuclear weapon states pledged unfettered access to peaceful nuclear technologies and the pursuit of nuclear disarmament negotiations aimed at the ultimate elimination of their own nuclear arsenals. It is this basic bargain, explicitly referred to by Schultz, Perry, Kissinger, and Nunn in their 2007 article, that has formed the central underpinnings of the international nonproliferation regime for the last three decades.

Challenges to Elimination Efforts

The nuclear weapon states, however, have never really 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 was that, pending the eventual elimination of nuclear weapon arsenals, the nuclear weapon states would agree to several actions. These actions included a treaty prohibiting all nuclear weapon tests, a negotiated agreement prohibiting the further production of nuclear bomb explosive material, and the undertaking of obligations by nuclear states to significantly reduce their own nuclear arsenals and the role of nuclear weapons in their security policies ("The Treaty on the Non-Proliferation of Nuclear Weapons," 2005). None of these actions has been accomplished over 35 years later. As Mohammed ElBaredi (2004) wrote in an op-ed in *The New York Times*

> If the world does not change course, we risk self-destruction. . . . We must abandon the unworkable notion that it is morally reprehensible for some countries to pursue weapons of mass destruction yet morally acceptable for others to rely on them for security (ElBaredi, 2004).

Now the other side of the bargain has begun to fall apart. The actions of India and Pakistan have eroded the NPT from the outside. In 1998, both India and Pakistan conducted a series of nuclear weapon tests and declared themselves to be nuclear weapon states. Today, India, Pakistan, and Israel continue to maintain sizable unregulated nuclear weapon arsenals outside the NPT. North Korea (the "DPRK") withdrew from the NPT in 2003 and may have built eight to ten nuclear weapons. The new agreement with the DPRK is promising, but the elimination of this probably highly dangerous arsenal is far into the future. The secret Pakistani-based illegal nuclear weapon technology-transferring ring, led by A. Q. Khan, has been exposed, yet who can be sure that we have seen more than just the tip of the iceberg ("A. Q. Khan," 2005)?

Iran is also suspected of having a nuclear weapons program. Contrary to its IAEA safeguards agreement, Iran admitted in late 2003 that it had failed to report its acquisition of uranium enrichment technology. Today, the situation in Iran has grown increasingly serious and has evolved into a major crisis. However, the Iranian threat is long-term, not immediate. Military pressure against Iran is not the answer; rather it is patient, careful diplomacy. Not long ago, Zbigniew Brzezinski, a former U.S. National Security Advisor, wrote: "I think of war with Iran as the ending of America's present role in the world" (as quoted in Ignatius, 2006).

Why might Iran want the nuclear fuel cycle and the attendant option to construct nuclear weapons? The nuclear program is very popular both in Iran and in other non-nuclear countries. One possible reason is that some countries believe that the only way they can ultimately gain respect in this world, as President Lula of Brazil declared during his first election campaign, is to acquire nuclear weapons (de Souza-Barros," 2003). Similarly, India declared in 1998, after its nuclear weapon test series, that it was a big country now that it has the bomb ("We are a Nuclear Power," 1998).

This theory of power and status is not without some basis. For instance, during the Cold War, nuclear weapons distinguished the "Great Powers" from other countries. Furthermore, the five 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 they were building nuclear weapons. In a 1958 television interview, British Prime Minister Harold MacMillan made clear the reason the United Kingdom acquired a nuclear weapons program: MacMillan stated that "the independent contribution [i.e., British nuclear weapons] . . . puts us where we ought to be, in the position of a Great Power" (as cited in Pierre, 1972, p. 178). Likewise, in a November 1961 speech, French President Charles de Gaulle stated that "a great state" that does not have nuclear weapons when others possess them "does not command its own destiny" (as cited in Kohl, 1971). In view of all this, we must recognize the possibility that it may simply be too late to attempt to change the course of nations and return to policies which will strengthen and support the NPT and the international non-proliferation regime. Hopefully, the NPT regime can be restored to its former strength, but, as of now, it is in serious trouble. Today, the NPT lacks the support that it enjoyed in the past. An editorial on India in the *Washington Post* indicated as such, stating that "[t]he nuclear Non-Proliferation Treaty is a limited asset: It has not stopped a string of countries from going nuclear, and it's not worth forgoing major prizes such as an Indian alliance in order to preserve it" ("Talking Nukes with India," 2006).

In today's geo-military climate, with a breakdown of world order and the war on terror, the materialization of threats which were feared by President Kennedy many years ago is becoming an increasing possibility. These

threats include the potential failure of the NPT, the ensuing likelihood of widespread nuclear proliferation, and the further dangers that exist with thousands of strategic nuclear weapons remaining on high alert along with a deteriorating Russian early warning system. As a result, it may be too late for nuclear arms limitation. In the interest of the security and safety of us all, perhaps a way must be found to proceed directly to the elimination of nuclear weapons. An elimination strategy could be the answer—a strategy similar to what Paul Nitze suggested over seven years ago and as Messrs. Schultz, Perry, Kissinger and Nunn urgently recommended earlier this year.

Possible Strategies for Limitation and Elimination

How could nuclear weapons actually be eliminated? A possible course of action would be for the President of the United States to address the United Nations in an extraordinary session of the General Assembly. In his speech, the President could call for the world-wide elimination of nuclear weapons and all other weapons of mass destruction. He could request that the Security Council be charged to carry out this task. The Security Council could then call for the negotiation of a treaty to eliminate nuclear weapons. This would require intrusive world-wide, on-site inspections and security guarantees for a number of states on the edge of conflict where nuclear programs are known to exist or may be present, such as Israel, Iran, Pakistan, and North Korea. In addition, North Korea must return to the NPT as a non-nuclear weapon state.

The next step to the gradual elimination of nuclear weapons would be an agreement by all states to apply economic and military pressure to any state that did not comply with this program or that subsequently violated the negotiated arrangements.

In a first phase, the five NPT nuclear weapon states, the United States, Great Britain, France, Russia and China, and the three other longtime holdouts from the NPT, India, Pakistan and Israel, could, over time, negotiate an arrangement to take all of their nuclear weapons off of operational status. Then, in a second phase, these eight states could negotiate an undertaking to reduce their arsenals down to very low levels over a period of years.

A third stage could require these eight states to eliminate all nuclear weapons and material except for a limited amount of such material retained by each of the eight states. This explosive material, or "fissile material," would include both highly enriched uranium and plutonim. India, Pakistan, and perhaps Israel could retain enough fissile material for 5 weapons each, Britain, France, and China could each retain enough for 15 weapons each, and the United States and Russia could each retain enough for 30 weapons each. Each countries' fissile material would be maintained at designated depositories under very high levels of national security protection and international safeguards implemented by IAEA inspectors. This retained material would serve the purpose of providing a hedge against the failure of the disarmament regime as all other nuclear explosive material would be eliminated. As a further hedge against failure, a network of missile defense systems could be cooperatively developed by the world's leading powers.

Gradually, nuclear power production would be reconfigured to use non-proliferative fuels and, eventually, advanced non-proliferative reactors so that there will no longer be a necessity to produce plutonium. The plutonium in existing spent nuclear fuel around the world would have to be eliminated as well. Such an arrangement would take a long time to negotiate and even longer to implement, but we must try, for the hour is late. A final stage, years in the future, could be the verifiable elimination of the fissile material retained by the eight nuclear states. This final step could be concluded once the issue of "missing" fissile material, a feature of the nuclear weapon inventories in virtually all of the nuclear weapon possessing states, has been effectively addressed.

Some might say that this program is unrealistic, that neither the United States government nor any government of a nuclear weapon state would ever contemplate such a thing. But increasingly, it appears imperative that we should make the elimination of nuclear weapons a real objective and remember that nothing good is ever impossible. For instance, who would have thought that the "zero European missile" option proposed by President Reagan in 1981 would ever happen? Who would have thought that the Soviet Union would ever commit to real nuclear disarmament and on-site inspection? Who would have thought the Cold War would end in the foreseeable future? Who would have thought that the Soviet Union would cease to exist? But all of these things did happen.

The Role of the United States

It must be remembered that in order to have any chance to achieve the elimination of nuclear weapons and to establish a peaceful and secure world community in the 21st century, the United States must lead; there is no other alternative. This leadership requires that the United States be believed and trusted. On September 12, 2001, the United States had the trust and support of the entire world. Now, in the wake of the United States' invasion of Iraq, its rejection of some of the rules of international humanitarian law and the Geneva Protocols on the treatment of Prisoners of War, and its rejection of international treaty arrangements such as the Comprehensive Nuclear Test Ban Treaty, the Ottawa Convention on land mines, the International Criminal Court, the Kyoto Protocol on global warming, the trust and support that the United States once enjoyed is gone.

The United States is now reviled and feared in many quarters of the world. A recent poll of 26,000 people in 25 countries showed a sharp deterioration in the world's view of the United States in the past two years (Kessler, 2005). Nearly three quarters of the respondents disapproved of the United States' policies in Iraq and nearly half of those surveyed said that the United States is playing a predominantly negative role in the world (Kessler, 2005). Senator John McCain recognized this disturbing trend when he said some months ago that, "America's position in the world is at an all-time low" (as quoted in Thomas & Hirst, 2005).

How can we regain the trust of the world community? How can we return to our historic destiny of keeping the peace and fostering the development of nations, democracies, free market economies, the international rule of law, international institutions, and treaty arrangements?

First, we should resolve our intervention in Iraq in a constructive manner as possible. The future of Iraq belongs to the Iraqis, we cannot ensure it for them; only the Iraqis can build a new Iraq. As former Defense Secretary Melvin Laird (2005) urged in his article in the publication *Foreign Affairs*, at an early date we must firmly and carefully turn over the struggle against the insurgency and chaos to the Iraqis. Our presence is what feeds the insurgency and it does little to prevent the slide toward civil war. A steady, gradual, but inexorable withdrawal, while at the same time doing our best to train the Iraqi forces, would strengthen the confidence and ability of the Iraqi security forces, enabling them to eventually stand up to the forces of disorder (Laird, 2005).

Second, we must recognize that, in the wake of the Cold War, the world has fundamentally changed. The nation-state system that dominated international life for the last 350 years is rapidly deteriorating. Perhaps some 50 to 70 nations around the world are inexorably slipping into the category of failed states. We cannot go it alone.

Poverty, disease, cultural misunderstandings and machine-gun societies around the world are central national security threats and the principal causes of international terrorism. The primary weapons in the battles against terror and a declining world order are economic, political, social, cultural, and diplomatic initiatives. Military force should only be used rarely.

Since the end of the Cold War, there has been roughly one major nation-building intervention every two years. Reconstruction in failed states is relatively well understood. But in many cases, the necessity of institution-building is essential to return failed states to a functional level. But to cite the well-known historian Francis Fukuyama from his book, *Nation Building*, "although institutions may be important, we know relatively little about how to create them" (p. 6). He went on to write that "[c]oalitions, in the form of support from a wide range of other countries and international organizations . . . are important for a number of reasons" (p. 238). Thus, Fukuyama takes the position that the United States should engage in these measures, but only with the support of other nations.

Lastly, for over fifty years, the United States pursued a world order built on rules and international treaties—a world that permitted the expansion of democracy and the enlargement of international security. Almost two years ago, in a speech before the American Society of International Law, Secretary of State Condaleeza Rice said that when the United States respects its "international legal obligations and support[s] an international system based on the rule of law, we do the work of making the world a better place, but also a safer and more secure place for America" ("Remarks of Secretary Condaleeza Rice," 2005). In order to implement this goal, we should take steps such as ratifying the Comprehensive Nuclear Test Ban Treaty, joining the Ottawa Land Mine Convention, becoming a part of the International Criminal Court, and establishing ourselves again as leading advocates of the international rule of law.

From this base, we could actively pursue the objective of restoring the NPT, thereby urgently seeking the essential ultimate goal of achieving a safe and secure world for our children and grandchildren by realizing Ronald Reagan's dream of a world free of nuclear weapons. Nothing is too difficult for humanity if people stay committed and dedicated—men did walk on the moon. The Cold War ended relatively peacefully and the complete and verifiable worldwide elimination of nuclear weapons can eventually be within our grasp as well. ◆

References

Blair, B. G. (2007). Primed and ready. *Bulletin of the Atomic Scientists*, 35.

ElBaradei, M. (2004, February 12). Saving ourselves from destruction. *The New York Times*, p. A37.

ElBaredai, M. (2004). Statements of the director general. Retrieved March 15, 2007, from http://www.iaea.org/newscenter/statements/2004/ebsp2004n008.html.

France's nuclear weapons program. (n.d.). Atomic Forum. Retrieved March 31, 2007, from http://atomicforum.org/france/france.html.

Fukuyama, F. (2006) *America at the crossroads: Democracy, power, and the neoconservative legacy*. New Haven: Yale University Press, p. 123.

Graham, T. (2005). Space weapons and the risk of accidental nuclear war. *Arms Control Today*, 12.

Ignatius, D. (2006, August 12). An Iranian missile crisis? *The Washington Post*, p. A17.

Kessler, G. (2007, January 24). President's portrayal of 'the enemy' often flawed. *The Washington Post*, p. A13. [Electronic Version]. Retrieved March 30, 2007, from http://www.washingtonpost.com/wp-dyn/content/article/2007/01/24/AR2007012400006.html.

Khan, A.Q . (2005, August 25). Global Security.Org. Retrieved March 14, 2007, from http://www.globalsecurity.org/wmd/world/Pakistan/khan.htm.

Kohl, W. L. (1971) *French nuclear diplomacy*. Princeton, NJ: Princeton University Press, p. 129.

Laird, M. (2005 November/December). Iraq: Learning the lessons of Vietnam. [Electronic Version] *Foreign Affairs* Retrieved March 30, 2007, from http://www.foreignaffairs.org.20051101faessay84604/melvin-r-laird/iraq-learning-the-lessons-of-vietnam.html.

Nitze, P. H., Drew, S. N. (ed). (1994) NSC-68: Forging the strategy of containment. Washington, D. C: National Defense University Press Publications, p. 71.

Nitze, P. H. (1999, October 8). A threat mostly to ourselves. *New York Times*, p. A31.

Non-proliferation treaty. (n.d.) United Nations Department for Disarmament Affairs. Retrieved March 17, 2007, from http://disarmament.un.org/wwd/npt/.

Nunn, S. (2004, December 6). The cold war's nuclear legacy has lasted too long. *Financial Times*.

Pierre, A. (1972). *Nuclear politics: The British experience with an independent strategicForce*. London: Oxford University Press, p. 178.

Ramana, M. V. (n.d.) The Indian nuclear bomb-long in the making. Retrieved on March 31, 2007, from http://members.tripod.com/no_nukes_sq/precis.html.

Remarks of Secretary Condaleeza Rice at annual meeting of the American society of international law. (2005, April 1). U.S. Department of State. Retrieved March 26, 2007, from http://www.state.gov/secretary/rm/2005/44159.htm.

Rhodes, R. (1986). *The Making of The Atomic Bomb*. New York: Touchstone, p. 462-463, 466-476, 701, 710-715, 732-724.

Schultz, G., Perry, W., Kissinger, H., Nunn, S. (2007). A world free of nuclear weapons. *Wall Street Journal*, p. A15.

de Souza-Barros, F. (2003, January). New Brazilian government and nuclear weapons. International network of engineers and scientists against proliferation. Retrieved March 31, 2007, from http://www.inesap.org/bulletn21/bul21art13.htm.

Talking nukes with India. (2006, February 26). *The Washington Post*, p. B06.

Thomas, E., Hurst, M. (2005, November 21). The debate over torture. *Newsweek*. [Electronic Version]. *Newsweek*. Retrieved March 30, 2007, from http://www.msnbc.msn.com/id/10020629/site/newsweek/page/4/.

The treaty on the non-proliferation of nuclear weapons. (May 2005). Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). Retrieved March 14, 2007, from http://www.un.org/events/npt2005/npttreaty.html.

See generally We are a nuclear power; interview with India's PM Vajpayee. (1998, May 25). [Electronic Version]. *Newsweek*., 131, p. 32d.