

# LIMITING THE USE OF NUCLEAR WEAPONS: MOVING BEYOND SUPERPOWER COMPETITION?

by  
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Historically, efforts to limit the use of nuclear, biological, and chemical (NBC)<sup>1</sup> weapons have been directed at measures to reduce the risk of war, particularly nuclear war, between the U.S. and the Soviet Union.<sup>2</sup> For many years, only a few other countries (China, France, and the United Kingdom) possessed nuclear arsenals and both France and the U.K. were allied with the U.S. Since China possessed only a limited nuclear arsenal, it was therefore not considered a nuclear threat to the U.S.

During the cold war, a period of extreme tensions between the Superpowers that lasted from after World War II until the late 1980s, the risk of a nuclear exchange was reasonably high. By 1967, only twenty years after the first atomic bomb was dropped by the U.S., the U.S. and Russia had a combined arsenal of over 50,000 nuclear weapons!!! These nuclear weapons could have destroyed the world one hundred times over.

As cold war tensions fluctuated, both sides were fearful that a nuclear war could begin either as a surprise attack or by accident. Accidental escalation could result both from inadvertent use of a nuclear weapons ("Oops, I shouldn't have launched that one" or "Oops, I pressed the wrong button") or unintentionally through misperceptions ("I thought that flock of seagulls were incoming nuclear weapons"). Scott Sagan (1993), an expert on accidental war escalation, has detailed many examples of situations during the cold war in which a nuclear war almost occurred accidentally, including a 1979 incident in which four different command centers reported a large number of Soviet missiles heading for a full scale attack on the United States. Emergency preparations for retaliation were made rapidly. Fortunately, however, an early warning center soon reported that no incoming missiles existed. More recently, in 1995, the Russians mistakenly thought that the test flight of a Norwegian scientific rocket was an incoming missile from a U.S. Trident submarine off the coast of Norway. Russia's 10

minute launch deadline for retaliation had almost closed before it was confirmed that it was not in fact a missile. Norway had notified Russia of the launch, but the notification never made it up the Russian chain of command (Blair, 1999).

The Superpowers offered two primary rationales for building such large nuclear arsenals: The need to continue to modernize the arsenal and the need to protect each country's citizens from a blinding first strike. Large numbers of nuclear weapons are arguably needed to deter a first-strike because without large numbers an enemy may be able to eliminate an entire nuclear arsenal, with one strategically placed attack. In this instance, deterrence, the ability to discourage use by threatening devastating retaliation, is undermined. Despite the fact that the cold war is over, these two rationales continue to be the primary arguments for developing a large and sophisticated nuclear arsenal.

## Arms Control Between the Superpowers

In the 1980s, relations between the Soviet Union and Russia began to thaw as the two countries established political and economic ties and substantially reduced the size of their respective nuclear arsenals through a series of arms control agreements. Mueller (1989) even went so far as to argue that the ties became so strong that there was not a serious risk of war between the U.S. and the Soviet Union.

Nuclear brinkmanship began to reverse when Mikhail Gorbachev became the President of the Soviet Union. In 1987, the U.S. and the U.S.S.R. signed the INF (Intermediate Nuclear Forces) Treaty which eliminated the deployment of many of the nuclear weapons in Europe which could have hit Russia within a matter of minutes. The Treaty also banned all land-based missiles with a range of 500-5,500 kilometers. In 1990, the two countries signed the multilateral (CFE) Conventional Forces in Europe Treaty which placed specific limits on US conventional forces in Europe and Russian

force deployment in the flanking areas. Flanking areas are simply the right or left sides of a military formation. A flanking maneuver is an attack from one or both of these sides. To prevent this, the treaty placed specific limits on the number of tanks and artillery in Europe's southern and northern flanks, as well as in Russia. This treaty applies to many of the successor states of the Soviet Union.

Under START (Strategic Arms Reduction Talks) I, signed in 1990, the U.S. reduced the number of its stockpiled weapons by 1996 to approximately 8,000 plus another one thousand tactical nuclear weapons. And Russia reduced its to approximately 6,000. Russia is continuing to dismantle tactical nuclear weapons with assistance from the U.S.

During the Cold War, in order to ensure bombers would be able to retaliate in the event of a first strike against America, a portion of the U.S. bomber fleet flew 24 hours a day, seven days a week, three hundred sixty five days a year. In 1991, President George H. W. Bush ordered the nuclear bomber force operated by the Strategic Air Command to "stand down," meaning that they no longer had to be on constant alert for a nuclear attack stay airborne. He also reduced the number of targets in the Single Integrated Operational Plan (SIOP), an exhaustive list of nuclear targets that would automatically be it at the outbreak of a nuclear conflict. At the time of Bush's order, the list which at the time had about 12,500 targets!

In 1993, Presidents Yeltsin and Bush signed START II. Start II was ratified by the U.S. Senate in March of 1997 (all treaties have to be ratified by the Senate) and by the Duma (Russia's Parliament) in June of 2000. This treaty commits the U.S. and Russia to having a total of no more than 3000-3500 warheads by 2003. Russia has conditioned its ratification of START II on the U.S. not deploying missile defense and not expanding NATO to include the Baltic republics.

In 1993, the U.S. and Russia signed the Moscow Declaration, agreeing that they would not target missiles at one another. The missiles are now targeted at the ocean. This is not particularly significant because the missiles can be retargeted in minutes, but it does prevent an unintentionally-launched missile from hitting each respective country.

In November 1997, President Clinton signed Presidential Decision Directive 60 (PDD 60). Although the document is legally classified, it has been leaked that the document directs the military to abandon Ronald Reagan's strategy of preparing for a protracted nuclear conflict and instead directs the military to prepare for nuclear arms reductions.

The nuclear arms control measures adopted by the U.S. and Russia were widely viewed as positive signs of the declining risk of a nuclear catastrophe. By the early 1990s, a chorus of voices argued that the risk of nuclear confrontation had receded into history and that a new age of peace, where military resources could now be devoted to economic and humanitarian needs, was among us. In recent years, even more radical proposals for de-alerting nuclear weapons (Blair, 1995), abandoning our first use doctrine (Goldblatt, 1997), developing only a limited nuclear arsenal of a couple of hundred weapons (Turner, 1997), and even complete nuclear disarmament (Schell, 1998; Walker, 2000) have been advocated.

### Rogue Threats to U.S. Security

Critics of proposals to limit the development of the U.S. nuclear arsenal, and proponents of military modernization and missile defense systems, have defended the need for modernizing and expanding the size of the U.S. nuclear arsenal by focusing on the threat of "rogue<sup>3</sup>" states to U.S. security. In particular, these advocates have focused on countries that are developing nuclear, biological, and chemical (NBC) weapons. These states include Iran, Iraq, and North Korea.

### The Proliferation Threat from Iran

There are a number of reasons to believe that Iran is trying to develop nuclear weapons. The first reason is that there is no apparent reason for Iran to pursue a civilian nuclear program since it is a country rich in oil and gas resources. Although Iran claims that it is trying to save all of its oil and gas resources for export, Iran's supplies are so plentiful that it is hard to believe it needs nuclear power to save re-

sources. The second reason is that much of the research Iran is doing has applications toward nuclear weapons development. For example, Cordesman (2000, p. 9) cites Iranian research on the uses of tritium, the covert nature of its program, and clandestine efforts by Iran to obtain U.S. nuclear weapons designs, as evidence that Iran is actively pursuing a nuclear weapons program.

Beginning in 1979, the U.S. imposed a series of bilateral economic sanctions on Iran, including freezing overseas assets, limitations on bilateral trade, and sanctions on investments in Iran's energy sector. In addition to bilateral sanctions, the U.S. has also sought to apply sanctions on any company investing in Iran's energy sector. In 1996 Congress passed the Iran-Libya Sanctions Act (ILSA) which has been controversial due to its extraterritorial reach (under the act, the U.S. can sanction other countries that do business with Iran). Our European allies have vehemently rejected application of U.S. law to their business dealings, and President Clinton was forced to waive the sanctions on European investors to avoid seriously damaging trade relations with the European Union. The U.S. also has sought to impose sanctions against nations providing dual-use technology to Iran such as Russia. Although Russia has fought these sanctions primarily out of economic self-interest, they raise an important point. Because Iran is a signatory to the Non-Proliferation Treaty (NPT), Russia believes the transfer of nuclear technology is justified as long as Iran maintains transparency in their peaceful nuclear energy programs.

Relations between the U.S. and Iran have been tense since 1979 when the Iranian people overthrew the U.S.-backed Shah and installed a fundamentalist Islamic government, headed by the Ayatollah Khomeini. Shortly thereafter the U.S. Embassy was seized and American citizens were held hostage for over 400 days. Since the release of the hostages, formal diplomatic relations between the two nations have been severed.

Both countries have a number of complaints about the other's behavior. Iran resents what it considers U.S. interference in its domestic affairs, whether through its past support of the Shah or its current export of its culture. Many of the older leaders still view the U.S. as the "Great Satan" and are vehemently opposed to normalizing relations with their sworn enemy. Iran also re-

jects what it considers a double standard in U.S. treatment of Israel and Iran. America refuses to condemn Israel's undisclosed nuclear weapons and aggressive military tactics, but paints Iran as a threat to the regional order. The U.S. has several concerns regarding Iran, including its sponsorship of international terrorism and its opposition to the Arab-Israeli and Israeli-Palestinian peace processes.

There are a couple of specific dangers posed by Iranian nuclear proliferation. First, Iranian acquisition of nuclear weapons may lead to pre-emptive strikes by Iran because Iran fears that the nuclear weapons will be used against them. Second, it could lead to belligerent Iranian aggression in the Gulf as Iran would now have confidence that its nuclear arsenal would deter retaliation. This would also undermine U.S. power projection capabilities in the Gulf because the U.S. would fear a nuclear attack if it engaged in aggressive action against Iran.

### The Proliferation Threat from Iraq

U.S. efforts to arrest the Iraqi nuclear program have included direct military campaigns and economic sanctions. In 1991, the U.S. went to war with Iraq to evict the Iraqi army from Kuwait. Iraq's terms of defeat included complete dismantlement of its non-conventional arsenal (NBC weapons). To monitor Iraqi compliance, an inspection regime called the United Nations Special Commission (UNSCOM) was created in accordance with U.N. Security Council Resolution 687. Although the U.S. targeted only two potential nuclear weapons facilities during the Gulf War, inspectors who went to Iraq under the terms of the cease-fire found 21 nuclear weapons production facilities!

While Iraq pledged to comply with the terms of Resolution 687, it is widely believed that Iraq has systematically worked to undermine all efforts of the international community to dismantle those programs and has actively sought to sustain its nuclear weapons program. Today, the exact status of the Iraqi nuclear program is not well understood since there have been no inspections for the last three years. In November of 1997, Iraq expelled many UNSCOM inspectors and completely kicked out all inspectors one year later as U.S. policy was coming under fire from Scott Ritter, an American UNSCOM inspector who resigned because he believed that the Clinton administration was holding UNSCOM back

from de-nuclearizing Iraq. In the mean time, U.S. war planes have continued to patrol the no-fly-zone (NFZ) above Iraq (established after the Gulf War) and periodically engage in air strikes at Iraqi military targets. In addition, the U.S. has maintained a rigorous set of economic sanctions aimed at preventing Iraq from acquiring the economic resources it needs to produce nuclear weapons.

In the short-term, at least, Iraqi efforts to acquire nuclear weapons and the means to deliver them are somewhat limited. The sanctions regime, and the military bombing campaign, have all but eliminated Iraq's nuclear infrastructure. If the sanctions were to be lifted, however, many scholars argue Iraq could easily build a nuclear weapons arsenal. Since there is deteriorating international support for the sanctions regime, this is a real possibility.

### **The Proliferation Threat from North Korea**

From 1980 to 1987, North Korea operated a graphite-moderated reactor. This reactor was capable of expending enough uranium fuel to produce 7 kilograms of plutonium annually. This is enough to produce a single nuclear bomb. In 1989, North Korea shut down its reactor for 70 days. U.S. intelligence believes during this time the North removed the spent fuel rods from the reactor in order to separate the plutonium. In May 1994, North Korea shut down the reactor again. This time removing about 8,000 fuel rods, which could be reprocessed to produce enough plutonium for four to five bombs per year. In 1992, Han Blix, the head of the IAEA, visited North Korea and reported that North Korea did have a reprocessing plant and was preparing to build another.

The U.S. has engaged in ambitious efforts to restrain North Korea's development of nuclear weapons. In 1994, the U.S. made a deal with North Korea to supply it with two light water nuclear reactors by 2003, organize financing for the project (largely from South Korea and Japan) and replace the energy lost from North Korea's existing reactors with heavy fuel oil (about 500,000 metric tons a year). In exchange North Korea agreed to shut down its graphite-moderated reactor. The International Atomic Energy Agency (IAEA) has oversight of the shut-down and the storage of existing nuclear fuel. This project is set under the rubric of the Korean Energy Development Organization (KEDO) ([http://](http://www.kedo.org/default.htm)

[www.kedo.org/default.htm](http://www.kedo.org/default.htm)), a multilateral organization that is run by the United States, South Korea, and Japan. South Korea and Japan are to provide most of the financing for the construction of the reactors.

The reason that this shift in reactors is said to reduce the risk of North Korean proliferation is that light water reactors are much easier to monitor. North Korea's graphite-moderated reactors use natural uranium, which North Korea did not have to import. Light water reactors use enriched uranium, which North Korea must import because it does not have enrichment capabilities. Since North Korea will have to import the uranium, the outside world will be able to watch how it is used. Also, with a graphite-moderated reactor it is easier to remove a single fuel rod once the rod has enough weapons-grade plutonium. Since the fuel rods in light water reactors have to be changed in large groups, North Korea would have to shut the entire plant down to use the fuel rods. Shutting-down an entire plant is easy for intelligence officials to monitor.

Sustaining the KEDO agreement with North Korea has been difficult. In 1994, Kim Il Song, the long-time leader of North Korea, died. This caused a very slow transition which some feared would produce massive instability in the region. In August of 1998, the world watched in horror as the North tested a ballistic missile by shooting it over Japan. In the wake of North Korean saber rattling, it has been very difficult to sustain Congressional support for the KEDO project, which requires an annual appropriation of aid for the purchase of heavy fuel oil and food aid. Despite efforts to stop further ballistic missile development, North Korea is today considered to have an advanced missile program, and it has been reputed to have sold missiles and missile component to Iran and Iraq.

With the change in administrations, U.S. policy toward North Korea remains in limbo. After the 1998 missile test, President Clinton appointed former Secretary of Defense William Perry to conduct a thorough review of U.S. policy toward the Koreans. Perry recommended that the U.S. lift a majority of its economic sanctions in exchange for North Korea abandoning its missile programs. Clinton implemented this recommendation with executive action, despite some opposition in the Congress. At first, the Bush administration appeared to balk at further engagement with North Korea along the lines of the Perry recommendations.

During a summit visit from South Korean President Kim Dae-Jung, a few short weeks after his inauguration, President George W. Bush indicated that he would not continue missile talks with North Korea. At the time, Bush said that North Korea was not living up to its agreements with the U.S., although he did not specify which agreements or in what ways he thought those agreements were being violated. However, as this article is going to press, the administration appears to be retreating from the harsh rhetoric of its initial stance as it continues to shape its foreign policy toward North Korea.

If North Korea were to build a substantial nuclear arsenal, this could set-off a number of undesirable consequences. First, North Korea may feel emboldened to attack South Korea. Second, this may drive historical adversaries of North Korea, such as Japan and South Korea, to develop their own nuclear weapons. Since these countries have their own adversaries, this could spark a region-wide race to acquire the bomb. Third, it could undermine the credibility of the Non Proliferation Treaty (NPT) and other arms control measures. Fourth, it could spur global proliferation if North Korea were to sell its bombs or technology to other countries. Finally, a North Korean nuclear arsenal would pose a direct threat to the U.S. Launched on one of its ballistic missiles, a nuclear device could present a threat to the continental U.S. (CONUS), particularly Alaska.

### **The Proliferation Threat from Other Countries**

There are several other countries whose nuclear status falls into one of several categories. First, two other countries deserve to be included as high-risk states. Although references made to threats to the U.S. from "rogue proliferators" are usually made in with respect to North Korea, Iraq, and Iran, other countries, such as Libya and Syria, have also sought to acquire nuclear weapons. However, most serious discussions do not consider these countries to possess a threatening nuclear infrastructure.

A second category are those states which once possessed or sought to possess nuclear weapons, but have since eliminated or renounced their nuclear programs. The most prominent of these states is South Africa which dismantled its six nuclear weapons in the early 1990s. This is also true for Argentina and Brazil which mutu-

ally halted efforts to acquire nuclear weapons in the mid-1990s when they agreed to the Treaty of Tlatelolco. In addition, former Soviet states such as Belarus, Kazakhstan, and Ukraine cooperated with the removal of nuclear weapons from their territories after the collapse of the Soviet Union.

A third category are those states which possess nuclear weapons and/or the ability to assemble them, but have not signed the NPT. Israel is almost universally thought to possess over one hundred nuclear weapons, but they have not declared their capabilities (they haven't told anyone). The most recent entrants into the nuclear club are India and Pakistan which declared their nuclear weapons capability when both tested nuclear weapons in May of 1998. It is not altogether clear, however, whether either nation has actually deployed nuclear weapons, although both are believed to be capable of assembling at least a dozen on short notice.

Finally, there are many states which have commercial nuclear infrastructure yet have signed the NPT as non-nuclear states and do not possess nuclear weapons. Most prominent among these states are South Korea, Germany, Japan, and Taiwan which could develop nuclear weapons, but are unlikely to do so as long as the U.S. continues to pledge to protect their security.

So, the nuclear threat from "rogue" states generally consists of potential threats from Iran, Iraq, and North Korea. These states not only have to develop nuclear devices, but also the means to deliver them to the CONUS, which generally requires the development of sophisticated ballistic missile technology. Of course, it is possible that these countries could equip the missiles with chemical or biological warheads, rather than with nuclear warheads, but the development of these weapons requires that countries not only surmount similar technological barriers, but also develop the means to sustain controlled dispersal of these agents. And, once these countries acquire the appropriate technology, they also have to have the will to use them against an overpowering conventional and nuclear superior U.S. arsenal.

Regardless of whether or not the weapons are actually used against the U.S., nuclear proliferation does increase the dangers of a regional nuclear war for a number of reasons. First, countries will be tempted to preemptively strike new proliferators. Second, new proliferators will be tempted to strike with their small nuclear arsenals

before they lose them via preemption by another country. Third, many new proliferators continue to have long standing border conflicts with their neighbors that could simmer over into a nuclear exchange. Fourth, new proliferators lack stable political leaderships which is always a recipe for disaster. And finally, a lack of a developed nuclear infrastructure with adequate safeguards and precautions makes nuclear accidents more likely.

Of course, some scholars (Waltz, 1995) are more optimistic about the spread of nuclear weapons. Such advocates remain confident in the ability of deterrence to prevent a regional nuclear exchange, and insist that states will act rationally and will not risk nuclear suicide.

### The U.S. - Global Arms Race

Despite what appears to be a limited threat, efforts by 3+ "rogue" states to acquire WMDs continue to drive public argumentation over U.S. nuclear and conventional force policies. For example, the need to protect the U.S. from these states (and other "unknown" threats) was an effective argument strategy for critics of the Comprehensive Test Ban Treaty (CTBT). The CTBT was a treaty submitted to the U.S. Senate for ratification which would have prohibited all testing of U.S. nuclear weapons if it had passed in the Fall of 1999. These types of arguments have also carried the day in Congressional deliberations over funding for the development of new earth-penetrating ("bunker buster") nuclear weapons, as well as in military debates focused on expanding the list of countries targeted by U.S. nuclear weapons (Kristensen, 1997). Such rationales also have driven arguments in favor of the need to develop missile defenses and increase U.S. military control of outer space.

Despite the demonstrated track record of these arguments for propping up what President Eisenhower once called the "military-industrial complex" (MIC), some observers believe that there may be occasion for optimism. For example, Isaacs (2000) has suggested that the prospect of restraining the growth of military spending during the Bush administration may be more realistic than it might seem. His sanguinity rests on a few observations. First, Republicans in Congress are more likely to support a Republican administration that favors arms control. Second, many of Bush's nominees to top national security posts—such as Secretary of State Colin Powell—are relatively

liberal. And, third, during the campaign, Bush seemed to support nuclear reductions well below START II levels as well as plans to de-alert U.S. nuclear weapons. And, much to the chagrin of the military's top brass, Bush announced early on that there would be little to no budget increases for the military in the short term.

However, while each of these claims contains a grain of truth, many of the administration's early policies, as well as the rhetoric used to justify these policies, offers far less reason for hope. There is at best a division within top administration officials along ideological lines. There are, indeed, some liberal-minded officials high up in the administration like Powell. However, there are just as many, if not more, died in the wool cold warriors which reveals the administration's hawkish pedigree. For example, National Security Advisor Condoleezza Rice seems to have influenced many of the elements of the seemingly hard-line foreign policy trajectory charted by early administration actions. Similarly, Secretary of Defense Donald Rumsfeld—a long-time proponent of missile defense and space weaponization—has been a forceful, and somewhat successful, advocate of conservative approaches to defense as evidenced by his efforts to push missile defense despite substantial opposition around the globe. In addition, the Republican controlled Congress, has passed legislation that prevents the president from taking U.S. forces off of high alert or reducing forces beyond Start I levels, making Bush's campaign pledges largely irrelevant. And, even if Bush were to secure Congress' support to reduce the size of the nuclear arsenal or change nuclear doctrine, efforts to modernize the arsenal by developing "bunker-buster" nuclear weapons and deploying missile defenses would only serve to strengthen the power of the MIC while largely offsetting any international influence gained by quantitative reductions in the U.S. nuclear arsenal (Hitchens, 2001; Kerry & Hartung, 2001)<sup>4</sup>.

There are several reasons why other countries—even U.S. allies in Europe and Asia—vigorously oppose U.S. efforts to modernize its nuclear arsenal and build ballistic missile. First, many countries perceive these systems to be a direct threat to their national security. Just as the U.S. views military modernization in other countries as a threat, these countries view U.S. military modernization as a threat. Second, other countries believe that U.S. efforts to develop

new weapons systems are inconsistent with its preachings on the importance of arms control and weapons reduction efforts. These actions undermine the credibility of U.S. pledges and commitments international non-proliferation efforts (Lodal, 2000). Third, the development and deployment of missile defenses are seen as negating the deterrent capabilities of other countries, which only forces them to develop more sophisticated and larger arsenals in order to offset the missile defense system (Drogin, 2000).

In fact, many of the hard-line measures undertaken by the U.S. in the name of preventing the use of weapons of mass destruction by rogue threats have arguably resulted in an overall reversal of U.S. denuclearization policies undertaken at the end of the cold war. Although many elements of U.S. foreign policy designed to prevent the spread and use of NBC weapons are directed at these rogue states, they have the unintended, yet real, potential to seriously damage, even fracture, U.S.-Russian relations and resurrect latent, yet still dangerous cold-war behaviors. And, despite the fact that Russia may lack the economic resources needed to compete with the U.S. in a new nuclear arms race (Sokolsky, 2001), a renewed hostility in U.S.-Russian relations may undermine Russia's willingness to cooperate with U.S. efforts to control the spread of nuclear, chemical, and biological weapons technologies as well as other forms of smaller weapons, such as light arms—a source of hundreds of thousands of deaths around the globe. Moreover, deteriorating relations could encourage Russia to put its weapons on high levels of alert, substantially increasing the risk of an accidental nuclear war.

Ironically, despite the euphoria generated by the end of the cold war, the U.S. stands at the threshold of the 21<sup>st</sup> Century faced with the real prospect of single handedly igniting a more dangerous, devastating, and deadly cold war than the one from which we have just escaped. U.S. military modernization policies backed by the rhetoric of rogue threats risk re-inscribing cold war practices in ways that may prove more catastrophic than previously imagined. Only this time, a U.S. victory is substantially less certain because the moral authority of anti-communism, which served as a unifying rationale for U.S. allies across the globe during much of the 20<sup>th</sup> Century, has disappeared. U.S. foreign policy decisions made in the next few years will go a long

way toward determining whether or not the world can escape the tragedy that was so precariously averted just a few years ago.

#### **Efforts to Limit the Use of NBC**

Debates on how to limit the risk of NBC use have generally focused on two distinct approaches: soft-line and hard-line approaches. Soft-line measures include denuclearizing nuclear weapons, pledging not to use them first in a conflict, stopping nuclear testing, abandoning nuclear weapons all together, and engaging "rogue" states such as North Korea and Iran. Most advocates of these approaches propose these policies in the context of arms control agreements that would be signed between the U.S. and other countries, including Russia. Such arms control agreements would have to include both verification and transparency measures in order to prevent cheating.

At the other end of the scale are hard-line measures. These policies primarily include efforts to modernize the U.S. nuclear arsenal and use it to deter NBC use, particularly against the U.S. One excellent example of a hard-line measure is the development of earth-penetrating nuclear weapons. Missile defense systems, though not hard-line in the same way that nuclear force modernization is, may even be considered more hard-line because such systems rely on military means to deter and prevent the use of NBC weapons.

Advocates of these two divergent approaches generally divide along conservative/liberal lines. Although there are a range of views within both parties, Republicans tend to favor more hard-line approaches and Democrats tend to favor more soft-line approaches. It was the Republicans, for example, that defeated the Clinton administration's efforts to get the Senate to ratify the CTBT.

Measures to limit the use of WMD are not limited to hard-line and soft-line policies, however. Foreign aid, for example, is commonly used to discourage countries from developing nuclear weapons and to assist countries with their own nuclear security. The U.S., for example, promised to deliver billions of dollars in heavy fuel oil in exchange for a commitment from North Korea not to build a nuclear reactor whose technology could also be used to build a bomb. The U.S. also has provided assistance to Russia both to employ Russian scientists so that they will not go to work for countries that are interested in building nuclear weapons and to provide physical security

for existing nuclear warheads and materials so that those warheads and materials are not stolen by terrorists.

Other types of foreign assistance include aid to enhance the stability of the nuclear arsenals in other countries. These measures include the provision of Permissive Action Links (PALs) which make it difficult for non-authorized users to detonate nuclear weapons, distribution of early warning satellite data so that other countries will not fear being "blinded" during a crisis and be tempted to launch their own nuclear weapons, and the sharing of command and control technology to enable countries to always have stable control of their nuclear arsenals. Although Sagan (1993) argues that there are inherent limits to any safety mechanisms, efforts to enhance the stability and security of nuclear arsenals do reduce the risk of nuclear use.

#### **The Bush Administration and U.S. NBC Policy**

Shortly after taking office, the Bush administration announced that it would begin the Congressionally mandated Nuclear Posture Review (NPR). The NPR requires the President to review all elements of the U.S. nuclear arsenal, determine the continued utility of the existing nuclear doctrine, and make recommendations for revising strategic doctrine. A similar review was conducted by the Clinton administration in 1994, under then Secretary of Defense Les Aspin, although it recommended few changes from previous practices. Most commentators do not expect radical changes from the Bush administration. Although reductions in the absolute numbers of weapons are possible, nuclear modernization is likely to continue unabated.

#### **The Assumptions Behind Proposed Changes in U.S. Nuclear Policy**

The focus of U.S. NBC policy has largely shifted away from reducing the risk of nuclear war between the U.S. and the former Soviet Union toward reducing the risk of acquisition and use of NBC by smaller, "rogue" nations. Advocates of both soft-line and hard-line approaches base their advocacy on the assumption that a change in U.S. policy will have a significant impact on weapons development by other countries.

Soft-line advocates make two critical assumptions. First, they assume that the security of other countries is so determined by actions taken by the U.S. that reductions

in weapons development by the U.S. will significantly impact the decisions to build weapons by other countries. Second, they assume that international agreements backed by good faith will be largely effective in getting other countries to resist militarization.

While these assumptions are somewhat appealing, they are difficult to defend. Pure intuition sprinkled with a little dose of history and a healthy dose of pragmatic realism casts serious doubt on the first assumption. For example, Pakistan and India are strident enemies and have been so for a long time. In May of 1998, India tested five nuclear weapons. Despite extensive diplomatic lobbying and cajoling by the U.S., Pakistan followed with its own series of tests two weeks later. There really can be no doubt that Pakistan's decision to test nuclear weapons was driven by what India did. In this instance U.S. persuasion ran into a brick wall. Even if the U.S. had eliminated all of its nuclear weapons after the Indian test, this would have done little to protect the security of Pakistan, and subsequently deter Pakistan's entry into the nuclear club. Similarly, Arab states such as Syria and Libya will always seek to develop their militaries in order to protect themselves from Israel, regardless of U.S. actions. It is foolish to believe that "all" other countries will be persuaded by U.S. magnanimity.

In addition, there is considerable doubt over the assumption that institutional arrangements can curtail efforts by states to protect their own security by building up their own arsenals. Although liberal institutionalists (e.g. Keohane, 1989) argue that verifiable arms control agreements and transparency measures will always work to offset state insecurity, realists compellingly argue that these measures will never overcome the need for states to protect themselves and seek relative gains over other states (Greico, 1988). Colin Gray (1992), for example, has argued persuasively that arms control agreements will always fail because states will be driven to cheat to protect their own security interests.

Hard-line proponents have similar difficulties defending their assumptions. Hard-line proposals are based on several assumptions including the belief that states will act rationally in the face of superior military power; that countries can not easily offset U.S. gains by developing more sophisticated arsenals; and that heightened risks of instability and accidents will offset any security gains caused by an enhanced ability to

deter. All of these assumptions have come under attack. For example, Gray (1998) has argued that the history of global conflicts proves that deterrence is a complete failure. Although this argument is proposed in the context of conventional deterrence, as there have not been examples of nuclear deterrence completely failing, there is no real proof that nuclear deterrence works. Just because it is true that reliance on nuclear deterrence hasn't caused a nuclear war, it isn't necessarily true that deterrence has helped avert nuclear conflict. In fact, it might be argued that luck is what averted nuclear war during the Cold War.

Deterrence theories are built upon the notion that people are rational creatures, who are capable of accurately perceiving the environment in which they exist (Cox, 1986). If State A decides to use deterrence posturing, it does so because it believes State B will accurately perceive and interpret State A's actions. As many authors have noted, this does not always work. An adversary might find the actions overly aggressive, or the deterrer might become blind to the severity of the threats they are making. The result is an accidentally provoked conflict, arms racing, and support for other destabilizing measures (Gray, 1998).

Deterrence also relies on concepts of rationality that may not apply in all contexts. Nuclear deterrence can only work if those with the decision-making abilities in two different countries are unwilling to accept the total destruction of their own societies that will likely come about if a nuclear war ensues. If someone were to rationally conclude that that is an acceptable, or even a desirable, consequence, then nuclear deterrence would cease to function (Martel, 1998).

Finally, proposals to provide aid as an incentive to discourage the development of nuclear weapons are also not free from criticism. Inducements in the form of aid, only end up holding the U.S. hostage to NBC politics while severely damaging U.S. prestige around the globe (Henriksen, 1999). Moreover, aid can be diverted easily and usually ends up propping up corrupt governments and further fueling their efforts to improve their military capabilities. This is particularly true of assistance that goes to enhance the security of existing nuclear arsenals.

### Conclusion

For years, efforts to limit the use of NBC weapons focused on limiting the use

of nuclear weapons between the U.S. and the Soviet Union. Today, these efforts have been tempered and redirected by new challenges posed by concerns about the potential development and use of NBC weapons by "states of concern" such as Iran, Iraq, and North Korea. As the discussion has shifted from how to reduce the risk of nuclear use between the U.S. and Russia to how to deter and prevent these new powers from acquiring and using NBC weapons, conventional arms control approaches have been abandoned as cold war relics. Consider, for example, the contention by missile defense advocates that the 1972 Anti-Ballistic Missile Treaty has outlived its usefulness. Apparently, in the post-cold war world, the rhetoric of the "states of concern" can go a long way toward consigning a once proud symbol of Superpower cooperation to the scrap heap. Today, American policymakers seem to have little faith in the exhaustive efforts of their forebears to limit the development of NBC weapons.

Yet, despite the cries from the left that U.S. policy is poised to abandon the stunningly successful architecture of decades of hard work at the arms control bargaining table, the difficulties inherent in limiting NBC use through soft-line approaches cannot be overstated. These approaches assume mistakenly that the U.S. alone drives global militarization patterns and that liberal institutional arrangements can overcome the need for states to protect their own security interests and the desire to seek relative gains over their adversaries. Meanwhile, simply handing out more foreign aid in the hope that it will dissuade would-be proliferators from their efforts has its own set of problems.

History shows that few of the existing approaches to limiting the risks of NBC use have substantially improved the security of the U.S. or any other regional power for that matter. Yet the grim reality of the road ahead is precisely the reason why it is so encouraging that high school students throughout the country will be wrestling with these issues for the 2001-2002 academic year. In classrooms throughout the country, policy debaters will be engaged in a cooperative learning effort to navigate the treacherous waters of U.S. nuclear policy with the hope of finding some new, bold approaches.

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<sup>1</sup> Weapons of Mass Destruction are *usually* defined as NBC weapons. The WMD term, however, does include broader uses, including land mines, light arms, and some sanctions, so I have chosen to be more specific by referring to NBC weapons.

<sup>2</sup> The Soviet Union dissolved in 1991 and the land mass is now made up of a number of independent countries. Russia has inherited all of the NBC weapons of the Soviet Union and is the focus of U.S. diplomatic energy. Alexander Putin is the President of Russia. Although the United States recognizes the threat of chemical and biological weapons from a number of "states of concern," U.S. nuclear policy is primarily driven by the threat to deter the use of nuclear weapons. Nuclear weapons are therefore the focus of this essay.

<sup>3</sup> "Rogue" states are now referred to as "states of concern."

<sup>4</sup> For a defense of nuclear force modernization, see Payne (2001) and Wall (2001).

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