Stopping the Spread of Nuclear Weapons

By Baker Spring

This lecture is on the proliferation of nuclear arms. More precisely, it will be on how best to prevent the proliferation of nuclear arms. For as much as we in the policy community may disagree about the proper policies for preventing nuclear proliferation, I think all of us share the goal of preventing proliferation.

The best prescription for preventing all sorts of proliferation—biological, chemical, missile, and space technology, as well as nuclear—is for the U.S. government to pursue a balanced non-proliferation policy. Such a balanced policy requires bringing four distinct approaches to addressing the proliferation problem together in a coherent fashion. These distinct approaches are: 1) deterring the use of the weapon in question, 2) defending against the use of the weapon in question, 3) destroying preemptively the weapon in question, and 4) controlling the spread of the weapon in question directly through arms control. In my view, a balanced and effective nonproliferation policy should not shun or slight any of these approaches. All make a unique contribution toward the whole and serve to reinforce one another in limiting the effects of proliferation and ultimately discouraging proliferation itself. This does not mean, however, that there is no requirement to make trade-offs among the four. Indeed, the real trick is assuring that there is an appropriate division of labor among the four. Now let me explain this general policy in terms of the specific challenges posed by the proliferation of nuclear arms.

Deterrence

In the case of nuclear arms, deterrence means retaining a military capability such that the response to a nuclear attack is so effective and overwhelming that any potential adversaries will conclude that such an attack is not worth the risks. In the context of proliferation, the same dynamic can cause a potential adversary to decide not to seek the weapons themselves. Obviously, nuclear deterrence played a central role in U.S.-Soviet relations during the Cold War. While in the future nuclear deterrence will continue to play an important role in international relations, its context and how it is applied will change dramatically. Specifically, the United States pursued a nuclear deterrence policy during the Cold War predicated on holding the Soviet society hostage and relied almost exclusively on an enormous offensive nuclear retaliatory capability to achieve that end. In the future, the U.S. will have to focus less on holding enemy societies hostage and focus more on protecting itself against attack. This is because in a multi-polar world the essentially psychological policy of offensive nuclear deterrence will be overwhelmed by complexity and confusion. To use an analogy, everybody understands the dynamic of two scorpions in a bottle. When the futures of whole societies hang in the balance, however, are we certain of the dynamic behind ten, twenty, or thirty scorpions in a bottle?

So if the offensive nuclear deterrence policy of the Cold War should be discarded, what should replace it? The best approach would be a damage limitation strategy. This seeks to build a nuclear arsenal geared to destroying the means of attack, particularly at the strategic level. In the context of deterrence, this arsenal will seek to discourage potential nuclear foes and proliferators

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not through threat of retaliation, but because the use of nuclear weapons will prove fruitless in achieving their goals.

This dramatic change in strategy has important implications for how the government will design the nuclear arsenal of the United States in the future. The most important of these is that speed and accuracy in the delivery systems will become extremely valuable. This is because the goal will be to destroy other nuclear weapons before they are launched. Almost as important is the need for flexibility through the retention of a variety of means to deliver nuclear weapons.

So what might a strategic nuclear arsenal having these characteristics look like? First, the need for speed and accuracy requires that the most modern weapons, like the MX and Trident II missiles, be retained at least for the time being. Flexibility requires that the triad of sea-based, land-based, and air-based weapons also be retained. The damage limitation strategy demands that the number of weapons in the arsenal be set according to the number of nuclear weapons deployed by other countries in the world that are capable of reaching the territory of the United States, assuming these weapons themselves can be targeted with offensive nuclear weapons. This target set includes not only the weapons themselves, but their supporting infrastructure. Finally, the target set includes a number of urban centers on an interim basis. Based on this global target set, which numbers somewhat less than 2,000 targets as of the end of 1993, the U.S. offensive strategic arsenal should include around 1,150 delivery vehicles and 8,300 warheads divided between the Minuteman III, MX and Trident II missiles, and the B-52, B-1, and B-2 bombers. But if the arms control process is successful in shrinking the target set over time, the U.S. strategic nuclear arsenal can likewise shrink.

The tactical nuclear force needs to be sufficient to meet the threat posed by regional foes using weapons of mass destruction, including nuclear weapons, against U.S. contingency forces and U.S. allies. These weapons should be used to offset any advantage on the battlefield such a foe would obtain through a strike with mass destruction weapons. Tactical nuclear weapons can best achieve this end by targeting large concentrations of enemy conventional forces. On this basis, the U.S. will want to retain a force of 2,500 modern, low-yield tactical nuclear weapons.

Offensive nuclear forces alone cannot effectively limit damage to U.S. territory in the case of strategic nuclear threats nor can they protect U.S. allies and forces in the field against tactical nuclear weapons and other weapons of mass destruction. This leads me to the next portion of my talk: the need for defenses.

Defenses

The second pillar in a comprehensive nuclear nonproliferation policy is deploying defenses. Effective defenses discourage proliferation because they devalue the weapons in the eyes of the would-be proliferator. Why spend billions of dollars building or buying weapons that can be countered with defensive systems?

It is critical, however, that we understand the specific problems associated with deploying defenses against nuclear weapons. First, there are only the most limited defenses against nuclear weapons themselves. Thus, in this context we are really talking about deploying defenses against the means of delivering nuclear weapons. These are primarily air defenses and missile defenses. Second, there has been a long, bitter debate about whether such defenses undermine deterrence. Defenses not only are compatible with deterrence, they enhance deterrence. This is because defenses limit the options of would-be proliferators and thereby raise doubts about the wisdom of striking at the U.S. Raising such doubts is the essence of deterrence. This is not yet the prevailing view. Third, defenses cannot fulfill all U.S. targeting requirements. For example, defenses

against nuclear-armed missiles or bombers contribute nothing toward destroying non-weapon targets such as the command and control centers used to launch an attack.

Keeping these limitations in mind, the U.S. should move forward with the deployment of both strategic and theater defenses. In the area of missile defenses, we should focus on deploying the "Global Protection Against Limited Strikes" system proposed by the Bush Administration. This system would provide defenses against both theater missiles and a limited number of strategic missiles by deploying interceptors and sensor systems on the earth's surface and in space, which would all be tied together by a command and control system. In the area of air defense, the U.S. should continue to improve its existing fleets of interceptor aircraft and surface-to-air missiles to counter future air threats. A new system, however, needs to be developed and deployed to counter cruise missiles.

As a further note, it is important to recognize that deploying defenses against strategic delivery systems in particular has two very practical benefits. The first benefit is that it can reduce the reliance on highly destructive nuclear weapons to meet strategic targeting requirements. The deployment of extensive strategic defenses could allow the U.S. to cut the number of strategic nuclear warheads in its arsenal by almost 50 percent even if the number of strategic nuclear weapons deployed by countries other the United States remained at today's level. The second benefit is that defenses can cover targets, such as ballistic missile submarines at sea and strategic bombers already in the air, that cannot be targeted with offensive nuclear weapons.

Thus, deploying defenses not only serves to enhance deterrence, but also complements the offensive force by both addressing vulnerabilities left by the offensive force posture and sharing the burdens imposed by targeting requirements. But it is necessary to understand that deterrence can fail and that offensive forces, as well as defensive forces, may actually have to be used. We must also preempt.

Preemption

Offensive nuclear forces, both strategic and theater, play an obvious role in dissuading potential foes from attacking the U.S., its allies, and forces in the field with nuclear weapons and even from obtaining these weapons in the first place. These forces should be organized around a damage limitation strategy. Since this deterrence force obtains its credibility as a deterrent from the fact that it can be used to execute the damage limitation strategy, it is also an ideal force for actually preempting an attack in an environment where nonproliferation efforts and deterrence have failed. Thus, a preemption capability makes an essential contribution to nonproliferation policy as a tool of counter-proliferation, meaning it addresses a situation where proliferation has already occurred.

Given the great strides that have been made in command and control systems and the accuracy of long-range weapons, some have speculated that it may be possible to destroy enemy strategic nuclear targets with conventionally armed weapons in the not-too-distant future. While this option should be explored, if for no other reason than the same technologies are applicable to modernizing the U.S. nuclear force, this capability may not be within reach soon. Hardened strategic targets, such as reinforced missile silos and buried command and control bunkers, will be all but impossible to destroy with conventional weapons.

While preemption is certainly an option in the context of an imminent nuclear strike, it also serves a purpose in a less extreme circumstance. This is particularly true regarding potential Third World foes in the process of building a nuclear weapons capability. It will be recalled that in 1981 Israel bombed an Iraqi nuclear reactor in order to delay Iraq from obtaining weaponsgrade nuclear materials. More recently, there was speculation in Washington about whether such

an attack could or should be carried out against North Korea's nuclear reactor. While all the ramifications of such a preemptive assault should be explored carefully on a case-by-case basis, the U.S. should not dismiss this option as a matter of policy. Further, it should work on developing the military capabilities needed to carry out such a mission. These efforts should focus on conventional munitions.

Now it is time to enter the world of diplomacy. This means examining the implications for nuclear proliferation of pursuing various arms control options.

Arms Control

The most delicate trade-offs in nuclear nonproliferation policy are between military capabilities on the one hand and arms control goals on the other. Arms control, when pursued too broadly, can undermine deterrence, defense, and preemption. If pursued too narrowly, however, arms control policy can result in wider accessibility to nuclear technology and increase the incentives for countries to obtain nuclear weapons.

There are four major items on the arms control agenda that have important implications for nuclear nonproliferation. These items are: 1) the extension of the Nuclear Non-Proliferation Treaty (the NPT), 2) the Comprehensive Test Ban (or CTB) negotiations, 3) settling the future of the Anti-Ballistic Missile (ABM) Treaty, and 4) the question of strategic nuclear reductions in Russia and the de-nuclearization of Belarus, Kazakhstan, and Ukraine under the Strategic Arms Reduction Treaty (or START) and START II. I will address each of these in order.

The extension of the NPT. The NPT will expire next year if the parties do not agree to extend it. As the review conference approaches, there are two major questions that must be addressed. The first question is whether the extension should be conditioned in some way. The second question is the length of the extension.

Concerning the first question, some Third World countries are likely to demand global denuclearization as the price for extension. The NPT, as currently written, allows five countries (China, France, Great Britain, Russia, and the United States) to retain nuclear weapons as designated weapons states. But a number of Third World states view this "discriminatory" aspect of the NPT as unfair. Further, they point to Article VI of the treaty, which calls for "a treaty on general and complete disarmament," to bolster their demands that the United States and the other four nuclear powers give up their nuclear weapons. The U.S. should reject the demand for such a condition. The fact is that U.S. nuclear weapons serve as a barrier to, not an incentive for, nuclear proliferation. Complete nuclear disarmament by the U.S. is likely to spur outlaw states, such as North Korea, to gain nuclear weapons because their weapons will give them more leverage under such a circumstance. Further, if the U.S. nuclear umbrella is removed, countries like Germany and Japan may seek to obtain their own nuclear deterrent.

While the U.S. should be prepared to accept an extension of the NPT without condition, it should also be prepared to propose its own conditions to the treaty. One such condition could require that all uranium enrichment and plutonium reprocessing facilities be located on the territories of the five declared weapons states. The agreement would then make these five states responsible for providing enrichment or reprocessing services to other countries on a contractual basis, assuming the materials will be used for peaceful purposes. If it were adopted, the condition would remove the most sensitive nuclear industrial facilities from the participating non-weapons states. Even if it were not adopted, it would demonstrate that the U.S. is also prepared to propose conditions to the extension of the NPT. This will provide the U.S. with negotiating leverage.

Concerning the second question, the Clinton Administration is seeking the indefinite extension of the NPT. This is one of three options set forth in Article X of the treaty. The other two options are to extend the treaty for a fixed period or to extend it for two or more fixed periods. The Administration's position on this issue is of questionable wisdom. There is merit to the argument that over time any arms control agreement can become an anachronism. Geostrategic circumstances change, and periodic extension reviews are appropriate. At a minimum, the U.S. should be willing to consider a number of 20- or 25-year extension periods.

The CTB negotiations. The Clinton Administration is now participating in negotiations at the United Nations Conference on Disarmament to achieve a CTB. While there is disagreement on this issue among the technical experts, I view a truly comprehensive nuclear test ban as a means for requiring the U.S. to abandon its nuclear weapons altogether. Such tests are necessary to ensure the reliability of the U.S. nuclear arsenal. The U.S. also may wish to modernize its nuclear arsenal, which will certainly require tests. The Bush Administration stated the following in January 1990 about curtailing nuclear testing: "We believe that a comprehensive test ban must be viewed in the context of a time when we do not need to depend on nuclear deterrence to ensure international security and stability...." That time has not yet arrived. If the Administration concludes such an agreement, the Senate needs to consider very carefully whether it serves U.S. interests. Further, Congress may wish to revisit the issue of the current moratorium on testing. To the extent that testing is required to sustain the U.S. nuclear deterrent, which serves as a barrier to proliferation, such testing should continue.

The ABM Treaty. The third item on the arms control agenda is the question of what to do about the ABM Treaty. The ABM Treaty bars the U.S. from deploying a nationwide defense against ballistic missiles. The Clinton Administration is also embarked on a policy that amends or reinterprets the treaty so that severe restrictions are imposed on defenses against non-strategic, shorter-range missiles. The ABM Treaty was never meant to impose restrictions on these kinds of missile defenses. The irony is that the Administration is pursuing this policy at a time when it cannot even identify its ABM Treaty partners. The treaty was signed by the now-defunct Soviet Union. It is time for the U.S. to move beyond the ABM Treaty. Its requirements are incompatible with the need for defenses against nuclear delivery systems, the most threatening of which is the ballistic missile. Instead, the U.S. should be cooperating with its allies and Russia to deploy such defenses.

Strategic arms reduction. The final item on the arms control agenda is whether to open negotiations with Russia, and perhaps the other nuclear powers, to discuss the possibility of going below the 3,500-warhead ceiling imposed by START II. I believe it is premature to take such a step. START I is not yet in force, and START II has yet to be ratified. Further, Russia is behind the U.S. in the ongoing nuclear disarmament process, and the de-nuclearization of the non-Russian republics has not been achieved. Time and effort are better focused on implementing the existing strategic arms control regime. This is not to say that at some time in the future, after more substantial progress has been made in implementing START I and START II, further reductions cannot be discussed.

Conclusion

The United States cannot limit the proliferation of nuclear weapons through moral posturing. As tempting as it may seem, it would be self-defeating to brand all nuclear weapons evil and to assume that other countries will follow the U.S. if it decides to rid itself of nuclear weapons. Both the instruments of military force and diplomacy are meant to serve the goal of national security. If both friends and foes alike see that the U.S. is prepared to make clear-eyed decisions to protect its security, both the likelihood of proliferation and the effects of proliferation that occurs despite our best efforts will be limited.

