IS THE NPT SYSTEM SLOWLY DYING?
SEVEN CHALLENGES TO THE REGIME

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For several decades, arms control has been at the center of global efforts to restrain the spread of nuclear weapons. The Nuclear Nonproliferation Treaty (NPT) has been, in a number of respects, a notable success. It has become nearly universal in application, having gained the accession of nearly every state in the international system. It is granted at least some (if not most) of the credit for limiting nuclear proliferation to a level well below that forecast in the earlier decades of the nuclear age. It has facilitated the acceptance of an international nuclear order that is starkly discriminatory, allowing five states a legally codified status as possessors of nuclear weapons while denying those weapons to all other signatories. It has created a legal and normative basis for opposing the spread of nuclear weapons. For most of its existence, it has been the only arms control regime that includes an international organization (the International Atomic Energy Agency) among its mechanisms of inspection and verification. In 1995, after a quarter century of being in force, the parties to the treaty extended the NPT indefinitely, on the presumption that its value had been demonstrated and that it should be in place permanently as a barrier to further nuclear proliferation. Here then, is a well-established arms control regime of indefinite duration and nearly universal participation that is widely regarded as the foundation for international efforts to prevent the spread of nuclear weapons. Viewed in this light, the NPT might be regarded as an unquestioned feature of the international landscape, as a prized instrument for those many states that oppose nuclear proliferation.

In recent years, however, this bright picture has been clouded by a number of adverse developments. Though there is still wide support for and wide belief in the NPT system, corrosive factors have been at work. These pernicious developments have been undermining confidence in the regime, calling into question the centrality of the NPT in dealing with proliferation threats, and in at least some minds raising doubts about its utility and its future.

CRUMBLING FOUNDATIONS?

One set of concerns has to do with developments or factors that undermine or threaten the very foundations of the nuclear nonproliferation regime. The discussion that follows highlights four developments that have the potential to erode the basis for or the effectiveness of the international nonproliferation regime: the weakening of the norm against acquiring nuclear weapons; the reaffirmation by the nuclear weapons states of the utility and legitimacy of nuclear weapons; the failure by the nuclear weapons states, especially the United States, to respect the importance of Article VI as seen through others' eyes; and the threat that nuclear leakage could destroy the technological chokepoint on which the NPT system relies.

Erosion of the Non-Nuclear Norm: By the late 1990s, it seemed as if the problem of nuclear proliferation had been bounded. It had been several decades since a state had openly acquired nuclear weapons. It had been more than two decades since the presumed opaque acquisition of nuclear weapons by Israel and India. The NPT had gained nearly universal acceptance. There remained a tiny number of nuclear proliferation "trouble spots" such as Iraq and North Korea, but in wider context these seemed both anomalous and manageable. Offsetting any remaining proliferation worries were a set of very positive developments: accession to the NPT of most of the remaining outsiders; the elimination of the South African nuclear program and the destruction of its nuclear weapons; and the abandonment of the incipient nuclear weapons programs of Argentina and Brazil. The nonproliferation news, on balance, seemed more good than bad. Further, especially in the early 1990s, there was hope that, with the end of the Cold War, even the superpower nuclear arsenals would be greatly reduced and significantly devalued. There existed some optimism that nuclear weapons were becoming a waning factor in international politics. And there was a broad belief within the nonproliferation community that there now existed a powerful global norm against the pursuit and possession of nuclear weapons. This norm was regarded as the bedrock on which the entire nonproliferation edifice rested.

Then, in May 1998, India and Pakistan tested nuclear weapons and openly declared themselves to be nuclear weapons states. Because neither of them had signed the NPT, this was not an affront or a legal challenge to the treaty regime as such. But it was a painful blow to the idea that the norm of nonproliferation was deeply rooted and widely accepted. The overt achievement of demonstrated nuclear weapons capabilities abruptly ended the pattern of several decades that this was simply not done. Further, New Delhi and Islamabad insisted on the necessity, the utility, and the legitimacy of their newly demonstrated nuclear status. By their behavior and their justifications, they rejected the proposition that nuclear weapons were becoming marginal factors of limited utility and that nuclear acquisition was an unacceptable choice. Obviously, whatever norm against nuclear acquisition might be said to exist, it did not figure decisively in the calculations and choices of India and Pakistan.

Nor did the reaction of the international community suggest that India and Pakistan had intolerably violated a deeply valued norm. There was, of course,

considerable criticism and the imposition of sanctions by some states. But in general there was acceptance of the Indian and Pakistani move. And with hindsight we can see that little lasting damage was done to the standing or interest of these two states as a consequence of their embrace of nuclear weapons. The United States, it is true, was required by law to subject India and Pakistan to sanctions. But it did so with palpable reluctance and abandoned them at the first plausible opportunity. In the case of India, the period after the tests saw a steady stream of high level American officials flowing through New Delhi, including a warm and successful visit by President Clinton. In the early months of the Bush Administration, prior to the attacks of September 11, détente with India was one of the administration's highest and most visible foreign policy priorities. Indeed, some Indians concluded from this record that nuclear weapons really are a ticket to the high table of international politics. Meanwhile, in the Pakistani case, its nuclear weapons did not prevent it from becoming one of the most vital of America's allies in the war against terrorism. After 9/11, all was forgiven, sanctions were lifted, aid was proffered, and Islamabad was one of the core members of the "coalition of the willing" that joined ranks with the United States in the wars in Afghanistan and Iraq. The costs of violating the nonproliferation norm were neither high nor lasting.

In April of 2003, in trilateral discussions with China and the United States, North Korea asserted that it too possesses nuclear weapons and is actively pursuing more. It is still unclear whether Pyongyang's claim is true or constitutes false boasting. But in either case, here is another government perfectly prepared to ignore and flout the nonproliferation norm. Here, then, is yet another state that has calculated that the benefits of nuclear acquisition exceed the costs of violating the norm. Here is another state that has proclaimed the necessity, utility, and legitimacy of its nuclear arsenal. Moreover, assuming the North Korean claim is true, this recent period has been one of the most prolific, in terms of nuclear proliferation, in the history of the nuclear age. In the first two decades after World War II (from 1945-1964), five countries openly attained status as nuclear weapons states. (These five are, of course, those that have legal mandate as nuclear weapons states under the NPT.) In the past five years, three states have, with neither shame nor artifice, claimed nuclear status for themselves.

Nor is this the end of the proliferation story. One other state, Iran, is alleged to be pursuing nuclear weapons – though Teheran denies this. Another, Iraq, was eliminated from the ranks of aspiring proliferators only by war and regime change. Recent news accounts have indicated that Japan (whose "nuclear allergy" was thought to be immutable for obvious reasons) has had secret debates about whether the threat from North Korea requires it to develop its own nuclear weapons capability. Regional specialists have speculated that other states – Saudi Arabia, Syria, Tawain – may harbor nuclear aspirations. The nonproliferation community has hoped that nuclear weapons will increasingly be viewed as unattractive, unimportant, unthinkable. The recent record suggests, however, that some states still find them tempting, significant, and all too thinkable.

Can a norm of nonacquisition be said to exist when some states have recently acquired nuclear weapons? When others are pursuing nuclear weapons? When still

others may be contemplating acquisition? When those who aspire to them are unimpeded by the norm? How many exceptions does it take to undermine a norm? These are the troubling questions that must be confronted in view of recent experience. At a minimum, it must be concluded that confidence in the power of this norm is unwarranted and hence that international nonproliferation efforts rest on a shaky normative foundation. This is one of the corrosive developments of recent years.

Reconfirming the Legitimacy and Utility of Nuclear Weapons: If nuclear weapons were increasingly viewed around the world, even by those states who possess them, as useless and illegitimate artifacts of the Cold War, the case for acquiring or retaining them would grow far less compelling. And indeed, after the collapse of the Soviet Union, there were large hopes that nuclear weapons would recede to the background of international politics, that the major nuclear weapons states (above all, Washington and Moscow) would lose their addiction to these weapons, that nuclear arms would come to be regarded as unusable weapons that provide little benefit but bring with them enormous costs and risks. Indeed, during the 1990s, there was a flowering of interest in the idea of a nuclear weapon free world. It arose in the context of expectations that, after the Cold War, nuclear weapons would be greatly reduced in number and greatly devalued, leading to the possibility that even the nuclear weapons states would come to the judgement that they were better off without these weapons. In a world that was spurning and eliminating nuclear weapons, the arguments for nuclear acquisition would be profoundly weakened. This would be a great buttress to nonproliferation efforts.

What has happened in the intervening years, however, is very nearly the opposite. For example, when in the mid-1990s, the International Court of Justice (ICJ) sought to rule on the legality under international law of the threat or use of nuclear weapons, the nuclear weapons states, headed by the United States, led the charge in insisting that nuclear arms are legal and legitimate instruments in the hands of states. Nothing in international law, argued the nuclear weapons states, could be construed as suggesting that the threat or use of nuclear weapons is prohibited. (In the event, by a narrow vote the ICJ found in an advisory opinion of July 8, 1996, that the threat or use of nuclear weapons would be generally contrary to international law but left unresolved the question of legality in extreme cases of self defense). Far from seeking to delegitimize nuclear weapons, in short, the nuclear weapons states were at pains to affirm their legitimacy – and to do so in a forum that was being watched raptly by the UN General Assembly.

Even more telling, however, has been the evolution of the policies of the nuclear weapons states in recent years. In Russia, the impoverishment and decay of its conventional forces – caused by years of severe economic distress and social dislocation – has resulted in a growing dependence on nuclear weapons in Moscow's security policy. Russia has abandoned the long-standing pledge of no-first-use that it inherited from the Soviet Union and adopted a doctrine that echoes that of NATO during the Cold War: nuclear weapons are regarded as the necessary compensation for conventional inadequacies. Financial exigencies are compelling a reduction in Moscow's holdings of deployed nuclear weapons, but it retains an arsenal that numbers in the thousands of

weapons and they are as central to Moscow's defense posture as ever. Indeed, Russia is more reliant on nuclear weapons for its security than was the Soviet Union. Further, many in Moscow see Russia's nuclear capability as its sole remaining claim to superpower status, the one respect in which it can deal with the United States as a rough equal. Hence nuclear weapons are also viewed as essential to Russia's international status as well as to its security. There is no indication whatsoever that Russia has any interest in forsaking nuclear weapons or even reducing their salience.

Hopes that the United States might retreat from its embrace of nuclear weapons have been similarly, though perhaps less explicably, confounded. Washington's massive and comprehensive military superiority suggested to some that it would fare very well in a world without nuclear weapons. Indeed, in such a world, the United States would be truly unrivalled. Hence, it could be argued that Washington's own strong self-interest would lead it in the direction of diminishing the role of nuclear weapons.

Instead, Washington has repeatedly reaffirmed the centrality and importance of nuclear weapons to its long-term security posture. It has done so in various contexts in both the Clinton and Bush Administrations. For example, at the time of NATO's 50th anniversary summit on April 23-24, 1999, the alliance issued a document outlining a new strategic concept. In this document, NATO neither identifies any large adversary nor spotlights any large threat to its security. On the contrary, it asserts that NATO regards itself as having no adversaries. Nevertheless, the new strategic concept does not move the alliance away from nuclear weapons at all. Paragraph 46 of the new Strategic Concept document conveys the critical point:

> "To protect peace and to prevent war or any kind of coercion, the Alliance will maintain **for the foreseeable future** an appropriate mix of nuclear and conventional forces based in Europe and kept up to date where necessary, although at a minimum sufficient level. Taking into account the diversity of risks with which the Alliance could be faced, it must maintain the forces necessary to ensure credible deterrence and to provide a wide range of conventional response options. But the Alliance's conventional forces alone cannot ensure credible deterrence. Nuclear weapons make a unique contribution in rendering the risks of aggression against the Alliance incalculable and unacceptable. Thus, they remain essential to preserve peace."

Here is the most powerful and successful alliance in history, lead by the mightiest power the world has ever seen, in an environment in which serious enemies or major threats are lacking, insisting that nuclear weapons remain not simply useful but "essential" to its security "for the foreseeable future" – that is, more or less forever. The most formidable aggregation of conventional military power ever mustered by any group of states "cannot ensure credible deterrence." But how much more powerfully will this set of arguments apply to any other state or alliance?

More recently, the Bush Administration has put to rest any thought that the United States might begin to distance itself from nuclear weapons. In its Nuclear Posture

Review, made public in January of 2002, it confirmed at the national level what NATO's Strategic Concept had reaffirmed for the alliance: nuclear weapons remain central to American security policy. The Nuclear Posture Review declares:

> "Nuclear weapons play a **critical role** in the defense capabilities of the Untied States, its allies, and friends. They provide credible military options to deter a wide range of threats, including WMD and large-scale conventional military force. These nuclear capabilities possess unique properties that give the United States options to hold at risk classes of targets that are important to achieve strategic and political objectives."[1]

The Nuclear Posture Review calls for the revitalization of the US nuclear weapons production complex, the reinvigoration of the US nuclear deterrent posture, the exploration of new nuclear weapon designs intended to provide the ability to destroy the hardest of targets, and the creation of a new "Triad" of nuclear capabilities. There are hints that nuclear testing may need to be resumed at some not-too-distant point in the future. There is great emphasis on ensuring that the President will have wide and flexible nuclear strike options in any future crisis. The Nuclear Posture Review, says Secretary of Defense Rumsfeld in his signed preface to the document, "will transform the Cold War era offensive nuclear triad into a New Triad designed for the decades to come."

The United States, in short, is upgrading rather than deemphasizing its nuclear force. It is sending a clear message that it regards nuclear weapons as legitimate, useful, important, even "critical" to American security. This will be true "for decades to come." But if nuclear weapons are "essential" for NATO and "critical" for the United States, why should they be useless and illegitimate in the hands of others? If the most powerful actors in the international system believe that it is imperative to cling indefinitely to nuclear weapons, why should other all other parties – who are weaker and more vulnerable – conclude that nuclear weapons are unnecessary? If nuclear weapons are going to be permanently and prominently on the international landscape, why won't other states conclude that such weapons are critical and essential to their own security? The case for nuclear weapons is alive and well, vividly articulated in the words and deeds of the nuclear weapon states.

Failing the Disarmament Test: The unambiguous public declaration that nuclear weapons will be retained in the arsenals of Russia and the United States for the indefinite future – for "decades to come" – raises another serious challenge to the management of the NPT regime. For many states, the NPT represents a grand bargain in which the non-nuclear states agreed to forsake nuclear weapons, but the nuclear weapons states agreed to work in good faith toward nuclear disarmament (an obligation embodied in the famous Article VI of the NPT). Just as the United States is quite intolerant when other states fail to fulfill their NPT commitments, at least some other signatories grow impatient and frustrated when they judge that the nuclear weapons states (above all, the

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[1] *Nuclear Posture Review*, January 8, 2002, p. 3, as available at www.globalsecurity.org/wmd. (Emphasis added.)

United States, as the leading power in the international system) are not meeting their obligations under Article VI.[2]

In truth, the commitment implied by Article VI is vague. There is no timetable or deadline associated with the commitment to nuclear disarmament. Nor are there established criteria for assessing whether the nuclear weapons states are working in good faith toward the desired end. Moreover, during the Cold War, when the Soviet Union and the United States were caught in an intense and fateful nuclear rivalry, there were obvious and unavoidable grounds for concluding that Article VI was not compatible with the times. In effect, the superpowers were given a reluctant reprieve from their Article VI commitment – in deference to the reality that both had amassed vast nuclear arsenals. Certainly, Washington was in the habit of treating Article VI as a mere rhetorical bow to disarmament, not as an operationally meaningful commitment.

But particularly since the end of the Cold War, other states have revealed that they regard Article VI to be a real, and a significant, commitment. They view it as a test of the fidelity of the nuclear weapons states to the NPT regime. During the 1995 conference on the extension of the NPT, Article VI became one of the issues of contention between the nuclear haves and have-nots. The non-nuclear weapon states agitated for serious reaffirmation of the commitment to nuclear disarmament and for promises that that desired steps in that direction (such as the Comprehensive Test Ban Treaty and the Fissile Material Cutoff Treaty) be taken relatively quickly. To obtain the indefinite extension of the NPT, the United States and other nuclear-armed states did accede to some of these demands, creating expectations that real progress in nuclear arms control would be in the offing

Washington has always pointed to its arms control efforts as tokens of its good faith. Since the end of the Cold War, some substantial reductions in forces have indeed taken place. But for the most part nuclear arms control has foundered since 1995. Meanwhile, it is difficult credibly to claim to be working toward disarmament while also pledging to retain nuclear weapons for as far into the future as the eye can see. It is difficult to persuade others that the Article VI commitment is being taken seriously when planning for nuclear forces is done on a time scale that encompasses decades. It is implausible to assert that one has jumped on the path toward nuclear disarmament when nuclear modernization is a major priority of defense policy. And with the coming of the Bush Administration, a further complication is added. The United States is now governed by an administration with a deep distaste for arms control.[3] In rapid succession, the Bush Administration has tossed aside agreements greatly valued by other states. It has withdrawn from the ABM Treaty, repudiated the CTBT, abandoned the Biological Weapons Convention Protocol, been uncompromising toward the Fissile Material Cutoff Treaty and so on. The progress expected by non-nuclear states after 1995 – the CTBT, for example – has now been definitively stopped. Further, though the Bush

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[2] On these points, see Rebecca Johnson, "Incentives, Obligations, and Enforcement: Does the NPT Meet its States Parties' Needs," The ACRONYM Institute, March 2003, pp. 3-4 of the web version.

[3] For an extensive analysis of the Bush Administration's approach to arms control, see Steven E. Miller, "Skepticism Triumphant: The Bush Administration and the Waning of Arms Control," *La Revue Internationale et Strategique*, forthcoming.

Administration did reach one strategic agreement with Putin's Russia, it has been forthright in denying that it has any interest in further such "Cold War style" agreements. Particularly after the attacks of 9/11 and the declaration of a protracted war on terrorism, Washington is seeking freedom of action not further arms control constraints.

The world's leading power is thus unalterably committed to the long-term retention of nuclear weapons and increasingly skeptical of the value of arms control, whether bilateral or multilateral. Given these facts, it is very hard to see how Washington can make even a weak case that it is conforming to the expectations raised by Article VI – but also quite likely that the Bush Administration does not care. How damaging will this be to the NPT regime? This depends, of course, on how other states react to this situation. Some will view this as a betrayal of one of the core NPT bargains. Some will view the United States as a noncompliant party (a perception, I believe, that colored some reactions to the crisis over Iraq's noncompliance with UN resolutions). Some will be outraged at the Bush Administration's rather systematic destruction of existing arms control frameworks. Will the anger be strong enough to jeopardize the NPT? Many states are likely to be reluctant to call the regime into question no matter how deep their dismay with Washington's policies. But Washington's clear indifference to Article VI is likely to produce friction and acrimony and could cause disillusionment on both sides of the dispute. Here is another potential corrosive factor that could harm the NPT.

The Mortal Threat of Fissile Material Insecurity: The nonproliferation regime is built around a technological chokepoint: the manufacture of the fissile material necessary to make nuclear weapons is very difficult. It requires specialized technologies that cannot be readily obtained and whose transfer can be reasonably well constrained. If this were not true, a number of additional states would already have acquired nuclear weapons. Certainly Iraq, which tried hard for many years to produce nuclear weapons, would have succeeded long ago were it not for the technological chokepoint that serves as a serious barrier to nuclear acquisition. The existence of this technological barrier has been one of the great advantages in the struggle against proliferation. States cannot easily surmount this barrier – and terrorists simply cannot do so.

Since the collapse of the Soviet Union, however, this vitally important technological chokepoint has been at risk of being swept away. The difficulty in manufacturing fissile material will not matter if weapons-usable material is available for theft or illicit purchase. Unfortunately, the Soviet Union left behind truly enormous quantities of fissile material, almost all of which was held in worrying conditions of safety and security.[4] Particularly disturbing is Russia's huge inventory of highly enriched uranium, which is the easiest material to fashion into a primitive nuclear weapon. Russia possesses literally thousands of weapons worth of this material. When the Soviet Union died, virtually none of this material was in adequate, safe and secure storage.

[4] For a comprehensive analysis of this problem, see Graham Allison, Owen Cote, Richard Falkenrath and Steven Miller, *Avoiding Nuclear Anarchy: Containing the Threat of Loose Russian Nuclear Weapons and Fissile Material*, (Cambridge: The MIT Press, 1996). For the definitive recent assessment of this issue, see Matthew Bunn, Anthony Weir, and John Holdren, *Controlling Nuclear Warheads and Materials: A Report Card and Action Plan*, (Washington DC: The Nuclear Threat Initiative and the Harvard Project on Managing the Atom, March 2003).

Should there ever be a major rupture in the Russian nuclear weapons complex, large quantities of fissile material could flood into a nuclear black market. Weapons-usable material could then be available to any party – state or terrorist – who was capable of paying market price. This would have a devastating impact on the NPT regime. Virtually all states and at least a few terrorist groups would be capable of making a primitive nuclear bomb if they were able to obtain enough fissile material. In a world in which fissile material was widely available by illicit means, aspiring proliferators would have a tremendous shortcut to nuclear capability and the main obstacle to nuclear acquisition would have been removed. In this world, the NPT regime would have little leverage against determined proliferators.

Alarmed by this state of affairs, the United States launched a set of cooperative programs in 1991 to assist Russia in upgrading the security of its nuclear holdings. The remedies are obvious and straightforward. But progress has been slow and grudging, the programs have never attracted sustained high-level attention or support, funding has been relatively modest compared to the scale of the problem, and never have these programs been pursued with the urgency commensurate with the risks and dangers of nuclear leakage. After a dozen years of (worthwhile) effort, barely more than one-third of Russia's stockpiles have benefited even from quick security upgrades, and less than 20 percent have received a more extensive package of security improvements. This means that huge quantities of weapons usable materials are still held in worryingly vulnerable conditions. The threat of large-scale nuclear leakage remains.

Russia is by far the biggest worry because of the size and condition of its inventories of fissile materials, but it is not the only potential source for the illicit acquisition of fissile material. Little is known, at least publicly, about the security conditions associated with Pakistan's nuclear inventories. But the instability and distress within Pakistan is clear, the presence within its borders of sympathizers with Al Qaeda and the Taliban is known, and the possibility of a breakdown in domestic order is real. Who knows what might happen to Pakistan's nuclear assets if internal strife should erupt? In Iraq, there is now a puzzle as to what happened to its nuclear program. Its nuclear facilities were looted after the war and the nuclear program that the Bush Administration believed to exist has disappeared. Could there be a "loose nukes" problem in Iraq? (The same question can be asked about the large inventories of chemical and biological weapons that Iraq was thought to possess.) And if North Korea were to collapse, what would come of its nuclear capabilities? In a chaotic demise of that regime, might some nuclear assets disappear into the hands of those with malign motives?

Nuclear leakage is not inevitable. Even if it occurs, it might happen on a small scale that would be damaging but not catastrophic. But lurking in the problem of fissile material insecurity is a potentially mortal threat to the NPT regime. A well-provisioned nuclear black market in fissile material could really be the death of the NPT system. At a minimum, the denial strategies built around the fissile material chokepoint would no longer be effective. Whatever remained of the NPT regime would have little ability to

prevent aspiring proliferators from succeeding in their pursuit of nuclear weapons. In the context of fissile material security, we have been skating on thin ice for a dozen years. Some believe that the most telling point is that we have not fallen through. But the far more significant point is that the ice is still thin. At any moment, the feared rupture could occur, with enormous adverse consequences. Until the fissile material security problem is completely and effectively addressed, the NPT regime is faced with a potentially fatal problem. Remarkably, not a single government (not even the United States, which deserves credit for doing more than any other state) has been willing to tackle this problem with the high priority it deserves and to commit the political and economic resources necessary to eliminate it quickly and definitively. Meanwhile, like a devastating time bomb that may or may not go off, the threat of nuclear leakage persists.

PERFORMANCE ANXIETIES

While some of the foundations of the nonproliferation regime have been subjected to corrosive forces, other doubts about the regime arise (especially among skeptics in the United States) as a consequence of negative judgements about its capabilities and performance. What can the nonproliferation regime do, and how well? The notion that the NPT system does not very much, not very well, leads to harsh conclusions about its value. Three concerns are particularly relevant here.

Detection and Covert Proliferators: The International Atomic Energy Agency (IAEA) is the organization responsible for carrying out inspections of NPT signatories. The IAEA, however, has a limited mandate. It possesses neither the legal authority nor the intelligence resources necessary to investigate all suspicious nuclear activities within the borders of a state that might be cheating. Rather, the mission of the IAEA is to ensure that declared civilian nuclear facilities (that is, nuclear power plants and associated infrastructure) are not being utilized deceptively to support a nuclear weapons program. Regular inspections and careful monitoring of inventories of fuel and waste enable the IAEA to determine with substantial confidence that civilian facilities are being used for legitimate purposes. Conversely, when materials are being diverted from a civilian plant, irregularities in materials accountancy can be detected by the IAEA and the illicit activities can be revealed – as was true in North Korea.

However well the IAEA performs its mandated mission, though, this is at most a partial solution to the problem of detecting illegal nuclear weapons programs – because diversion from civilian facilities is only one path, and not the most common path, to nuclear acquisition. When a state develops a dedicated, covert nuclear weapons program, it may be undetected even as its civilian facilities are given a clean bill of health. This was true in the case of Iraq, for example. It remained in good standing with the IAEA even when (as was subsequently discovered) it possessed a surprisingly advanced nuclear weapons program. The IAEA was not designed or intended to detect dedicated, covert nuclear weapons program, so it should not be surprising that it generally does not do so. Nevertheless, whether fair or not, critics often hold it accountable for failing to do so. Thus the fact that Iraq had received the IAEA seal of approval in the midst of undertaking

extensive illegal nuclear activities is viewed as a substantial black mark against the IAEA/NPT system.

A further problem is that, under the rules of the IAEA, the frequency with which any state is inspected is a function of the size of their civilian nuclear program. Hence, much of the IAEA's inspection effort is directed at countries that have large nuclear programs, such as Japan or various European countries. Here, in the view of critics, is another design flaw in the system: little or no attention will be paid by the IAEA to potential proliferators if their civilian program is small, while states that have not been regarded as proliferation troublemakers will nevertheless be subjected to extensive inspection if their nuclear industry is large. Possible proliferation problems will be ignored while the IAEA expends most of its resources inspecting benign and friendly states.

It is reasonable to argue that the detection of covert nuclear weapons programs should be the responsibility of the intelligence services of interested states. Surely the failure to detect the scale and extent of Saddam's nuclear weapons program is not the IAEA's alone. It is possible to argue that the IAEA's limited mandate is a conscious and intended result of choices made by the states that created the organization in the first place. It is plausible to suggest that the IAEA is rather good at fulfilling the mandate that it does possess. Nevertheless, when it comes to detection of cheaters, the IAEA focuses only on a narrow slice of the problem and hence, from the point of view of doubters, its value is quite limited. Some would even argue that it can be counterproductive in instances where it certifies good behavior on the part of an active cheater, creating a misleading impression that can result in unwarranted complacency.

Dual-Use Technology and the Problem of Intentions: IAEA members in good standing are entitled to full access to international nuclear commerce. Under Article IV of the NPT, non-weapons state signatories are assured the right to purchase and own the entire nuclear fuel cycle, provided only that the acquired facilities are appropriately safeguarded. The problem is that some basic technologies are inherently dual use, having both civilian and military applications. In particular, technologies that produce fissile material for nuclear reactor fuel can also be employed to produce fissile material for fabricating into nuclear weapons. Thus, members of the NPT/IAEA system can assemble the infrastructure necessary for the manufacture of nuclear weapons under the sheltering cover of the regime, claiming that the assembled capabilities are in support of a civilian nuclear power program. In this way, for example, Japan has systematically gone about the construction of the entire nuclear infrastructure, including uranium enrichment, plutonium reprocessing (under construction) and specialized dedicated storage for separated plutonium. The nonproliferation regime permits this and facilitates this.

There is, however, no reliable way of divining intentions. Even a state whose intentions are suspect is nevertheless entitled to buy what it wants provided it has not formally been accused of noncompliant behavior. A devious proliferator could pursue a strategy of acquiring the requisite technologies while still in the IAEA's good graces. When the time is ripe, it can then exercise its right of withdrawal from the NPT or

undertake a duplicitous strategy of diversion or use the civilian technologies as a cover for a parallel but covert military program. The US government has long been convinced, from the early 1990s onward, that Iran wants nuclear weapons and has an illicit nuclear weapons program. The prevailing view in Washington has little doubt about Iran's intentions. And indeed, Iran has been purchasing expensive technologies – for uraniaum enrichment, for example – for which it appears to have little need in the context of its energy program. Nevertheless, because Iran has welcomed IAEA inspections and has not been caught in any clearly noncompliant behavior (and in addition it has denied all allegations that it is pursuing nuclear weapons), it retains its status as an upright citizen of the IAEA.

For skeptics of the regime, this reality is frustrating and outrageous. If one accepts the assumption that Iran does have the intention of acquiring nuclear weapons, then the nonproliferation regime is not only failing to detect a cheater, it is an asset for the cheater, allowing it to forge ahead in ways that would otherwise be impossible. Here is another way in which the performance of the regime is suspect.

Cheating and the Problem of Enforcement: Finally, there is the question of what to do about cheaters. If the regime is to be meaningful in the most important cases, then cheaters must be caught and effectively disciplined. But the NPT has no clear answer to this challenge. The treaty itself contains no mechanism of enforcement, nor does the IAEA have any jurisdiction or capacity in this regard. Instances of clearcut noncompliance are meant to be passed to the UN Security Council, but this is no guarantee of effective action. In June 1993, for example, the IAEA issued a formal judgement that North Korea was in violation of its obligations under the NPT and associated safeguards agreements with the IAEA. At no point in the intervening ten years has that judgement been reversed. Even the deals that North Korea did make with the United States and South Korea failed to restore North Korea to full compliance with its obligations. At no time during that decade did the UN Security Council insist that North Korea fulfill its NPT obligations or act to compel North Korea's compliance. As noted above, North Korea's decade of malfeasance has culminated in claims that it now possesses nuclear weapons. The outcome of the present nuclear crisis with North Korea remains uncertain, but even in the face of brazen and admitted cheating by Pyongyang, it is still not clear whether or when the UN Security Council will be stirred to act, or whether in will be able to act effectively. Yet, from Washington's perspective, what is really unacceptable is, in Henry Sokolski's words, "inaction against Pyongyang's shredding of the NPT."[5]

Even more dramatic and bruising was the protracted crisis at the UN over Iraq's noncompliance both with its arms control obligations and with the UN Security Council Resolutions that attended the end of the 1991 Gulf War. For Washington, this was a clearcut instance in which Iraq was cheating, had cheated over a very long period of time, and could not be expected to comply voluntarily. In the Bush Administration's view, no amount of inspection was going to alter this situation. To Washington, it was obvious

[5] Henry Sokolski, "Pyongyang: The Case for Nonproliferation with Teeth," *Arms Control Today*, May 2003, p. 1 of web version.

that the use of force was necessary to compel compliance, to give meaning to the NPT, to restore the credibility of UN resolutions. With great anger and disbelief, the Bush Administration discovered that many states had little appetite to confront Saddam, much suspicion of US power, and infinite patience with inspection diplomacy.

For the prevailing school of thought in Washington today, the lesson of these episodes is unavoidable: there is little stomach at the UN for enforcing this treaty. And if the treaty is not scrupulously enforced against any and all cheaters, then it will have little value in the most important cases, when aspiring proliferators challenge the regime. But if the cheaters have a good chance of succeeding, if reliance on the regime will result in outcomes like that in North Korea – a hostile proliferator in possession of nuclear weapons – then again the value of the nonproliferation regime is circumscribed.

CONCLUSION: DISILLUSIONMENT IN DC

I have sketched here seven challenges to the nonproliferation regime. They represent, I believe, serious issues for those concerned about maintaining and strengthening the regime. But viewed in the context of the American debate – and especially through the eyes of the Bush Administration[6] – this set of considerations (the concern about fissile material security excepted) represents potent ammunition for critics of arms control. The doubters, in fact, conclude that this represents a fairly damning indictment of the NPT system. The non-nuclear norm is too weak to be meaningful. Calls for the delegitimization, devaluation , and even the elimination of nuclear weapons fly in the face of prevailing US nuclear policy. Article VI is an unwelcome complication, an inconvenience for a government firmly committed to a strong and modernizing nuclear force. Moreover, the fact that some parties to the treaty will complain about US compliance with Article VI while ignoring or downplaying the noncompliance of states like North Korea or Iraq produces fury in Washington. To skeptics, this exemplifies what is wrong with multilateral arms control. The limitations on the regime's ability to perform essential roles – its constrained ability to detect cheating, assess intentions of possible cheaters, and enforce the agreement when cheating occurs – causes many to conclude that it is not enormously valuable.

We are, it is now fashionable to say (paraphrasing Dean Acheson), present at the destruction – that is, the destruction of the post-World War II international system that had been built under American leadership. This demolition job has included some serious dismantlement of the edifice of arms control that had been built up with considerable pain over several decades. The NPT does not appear to be a high priority on the demolition list. Even many arms control skeptics concede that it has made worthwhile contributions to the cause of international security. But that does not mean that it is exempt from hard-nosed scrutiny or that its future is assured. Describing the Bush Administration's attitude toward the NPT, New York Times columnist Bill Keller writes, "the administration accepts it as a bequest from the past but regards it as pointless.

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[6] On Bush's radical approach to nonproliferation, see George Perkovich, "Bush's Nuclear Revolution: A Regime Change in Nonproliferation," *Foreign Affairs*, March/April 2003.

Only those who find it in their interest to obey will do so, Bush officials say, and the rest will cheat."[7] This is hardly a ringing affirmation of the regime, to say the least.

The Bush approach to nonproliferation may accept the NPT but it does not rely on it. The real US nonproliferation policy today is much more muscular, emphasizing the development of missile defenses and the exploitation of US military superiority for preemptive or preventive attacks against hostile proliferators. Bush and his advisors believe that an aggressive military approach to nonproliferation will dissuade some adversaries from seeking nuclear weapons, will deter others, and will destroy those who are most threatening. (The idea that a menacing US policy may create incentives for others to proliferate is discounted.) The NPT may be accepted as a useful adjunct to this approach, but the bedrock of the new US strategy is US military power and unilateral military options. And if the NPT becomes inconvenient, it will be discarded as an obsolete relic, just as the ABM Treaty was. This may be unthinkable to the international arms control community, but it is not unthinkable in the Bush Administration.

Meanwhile, if there is a nuclear leakage disaster in Russia or elsewhere, we will live in a new and much more disturbing world. At that point, the spread of nuclear weapons will be vastly harder to contain and we will be in the business of adapting to a world of nuclear plenty. Those who fear nuclear proliferation should attend to this problem.

[7] Bill Keller, "The Thinkable," *New York Times Magazine*, May 4, 2003, p. 52.