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# **Proliferation Challenges and Nonproliferation Opportunities for New Administrations**

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**Monterey Nonproliferation Strategy Group**

## THE CENTER FOR NONPROLIFERATION STUDIES

The Center for Nonproliferation Studies (CNS) at the Monterey Institute of International Studies (MIIS) is the largest non-governmental organization in the United States devoted exclusively to research and training on nonproliferation issues. Dr. William C. Potter is the director of CNS, which has a staff of more than 50 full-time personnel and 65 student research assistants, with offices in Monterey, CA; Washington, DC; and Almaty, Kazakhstan. The mission of CNS is to combat the spread of weapons of mass destruction by training the next generation of nonproliferation specialists and disseminating timely information and analysis.

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# FOREWORD

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The Monterey Nonproliferation Strategy Group convened in July 1999 in response to mounting dangers of nuclear, biological, chemical, and missile proliferation. Although this past year was a marked improvement on 1998—the *annus horribilus* of escalating proliferation threats—the seriousness, tenacity, and sheer number of challenges to the nonproliferation regimes continue to put the international nonproliferation architecture at risk.

In a time of increasing economic interdependence but diminishing confidence in multilateral security institutions, we need *strategic* vision to guide efforts to enhance international security. Toward that end, the seasoned policymakers and distinguished analysts who comprise the Monterey Nonproliferation Strategy Group are engaged in strategic reflection on how best to marshal international resources to address proliferation threats. A summary of the Strategy Group's activities and associated publications are available online at <http://cns.mius.edu/research/mnsg/index.htm>.

This publication presents discussion papers prepared for the Strategy Group's July 12-14, 2000 meeting, held in Monterey, California. They offer a wide-ranging set of informed and sometimes provocative contributions to the vital tasks of assessing emerging threats, rethinking fundamental assumptions, and outlining innovative but practical policy measures to combat proliferation and buttress international nonproliferation norms and institutions.

This meeting and other activities of the Monterey Nonproliferation Strategy Group have been made possible in part through the generous support of The Ford Foundation, Jill and Jeff Harris, The John Merck Fund, and the W. Alton Jones Foundation.

# ABBREVIATIONS

ABM	anti-ballistic missile
BW	biological weapons
BWC	Biological Weapons Convention
C <sup>3</sup> I	command, control, communication, and intelligence
CBW	chemical and biological weapons
CEP	circular-error-probable
CFE	Conventional Forces in Europe
CIA	Central Intelligence Agency
CIS	Commonwealth of Independent States
CTBT	Comprehensive Test Ban Treaty
CW	chemical weapons
CWC	Chemical Weapons Convention
DEW	directed energy weapon
DF	Dong Feng
DPRK	Democratic People's Republic of Korea
FMCT	fissile-material cutoff treaty
G-8	Group of Eight
IAEA	International Atomic Energy Agency
ICBM	intercontinental ballistic missile
INF	Intermediate-range Nuclear Forces
KEW	kinetic energy weapon
km	kilometer
kt	kiloton
MIRV	multiple independently targetable reentry vehicle
MPC&A	materials protection, control, and accounting
MRBM	medium-range ballistic missile
MRV	multiple reentry vehicles
mt	megaton
MTCR	Missile Technology Control Regime
N-5	five nuclear weapon states (of the NPT)
NAC	New Agenda Coalition
NATO	North Atlantic Treaty Organization

NBC	nuclear, biological, and chemical
NBC/M	nuclear, biological, chemical, and ballistic missile
NFU	no-first-use
NGO	non-governmental organization
NIS	Newly Independent States
NMD	national missile defense
NPT	nuclear Non-Proliferation Treaty
NSG	Nuclear Suppliers Group
P-5	Permanent Five (members of UN Security Council)
PAL	permissive action link
PAROS	prevention of an arms race in outer space
R&D	research and development
SLBM	submarine-launched ballistic missile
START	Strategic Arms Reduction Treaty
SVR	Russian Foreign Intelligence
TEL	transporter-erector-launcher
TMD	theater missile defense
UNSCOM	United Nations Special Commission (on Iraq)
USSR	Union of Soviet Socialist Republics
WMD	weapons of mass destruction

# TOWARD HOLISTIC NONPROLIFERATION

by Amy Sands

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## INTRODUCTION

A decade after the end of the Cold War, the United States is still struggling to identify its new coalescing approach to international security. Gone are the days of the Soviet menace or the international communist threat that so easily focused American national security concerns. Instead, we are faced with a wide array of threats emerging from a diverse set of players that include countries, sub-national groups, and individuals. As many have noted, while we have moved away from the threat of global annihilation, we may have moved closer to the actual use of mass destruction weapons in situations where the United States may have little influence or even be the target.

It is important to note that not only has the threat that was central to the Cold War national security paradigm changed, but also that there are significant changes and substantial differences in military capabilities and psychological contexts in today's post-Cold War era. First, as is quite obvious, the United States is and will be for some time the dominant military and economic power in the world. However, this does not necessarily translate directly into the United States being able to do as it wants or get others to do as it wishes. Both domestic and foreign factors are influencing and limiting this uniquely "unipolar" moment of the United States. Domestically, there is no consensus around what should be identified as the primary international security threat. In fact, there is a debate among experts in the field about what exactly should be included in the range of security threats, making it very difficult to articulate to the public how to respond to a poorly defined and equally inadequately prioritized set of international security concerns. Does one only worry about direct military threats aimed at the United States and its allies? How much should one worry about or become engaged with Balkan issues or African conflicts that seem somewhat removed from US public concerns? Does one pursue policies that assist in eliminating vio-

lence and socio-economic instability in the Middle East, East Asia, or Mexico since such upheavals eventually will touch upon American national interests? Unlike the Cold War national security paradigm, we have not developed a guiding principle, like anti-communism and containing the Soviet threat, which would enable us to answer such questions.

Second, most of the US public (and many other populations in other states) is of a generation that has really never known anything but the Cold War approach. We were comfortable with its strengths and weaknesses, and appreciated its overall stability. Even when disagreeing with specific policies pursued (e.g., Nicaragua, Chile, Vietnam), those debating had a conceptual framework that emerged from this Cold War security paradigm. Today, the multiplicity of concerns and threats has made developing a similar conceptual framework difficult and perhaps too complex and static to be very useful in addressing an evolving and dynamic situation. So the publics of the world are being provided little in the way of guidance through this maze of concerns and threats, leaving a feeling of being unsettled and, in the case of the United States, more vulnerable.

The reality is we are all more vulnerable. The diffusion of and increased reliance on technology; increased access to information, technology, and materials; ease of communication and transportation; and the openness of more societies have made us into a global community. This not only enhances economic advancement, but also creates more avenues of access for adversaries. When this increased access is combined with the reality that most countries or sub-national groups cannot directly defeat the United States, it leads these adversaries to look for ways to exploit their access and our vulnerabilities. Thus, American military dominance has actually resulted in an increased threat that is targeted at the US public and infrastructure because they are accessible targets. Americans may not worry about a Russian nu-

clear-tipped weapon falling upon them, but they now fear a more random set of events producing some catastrophe in their local environment, without any notice or early indicators. In the US context, officials have overstated the likelihood of terrorists resorting to nuclear, biological, or chemical agents and fed public fears, while not adequately addressing the more significant but less evident nuclear, biological, and chemical (NBC) weapons threat emerging from several states.

### **IS A NEW PARADIGM NEEDED?**

While it is clear that we need to let go completely of the Cold War national security paradigm, it is also obvious that in the last decade we have in fact been evolving toward new approaches to international security issues. These approaches, which include preventive defense, cooperative threat reduction, counterproliferation, and engaged multilateralism, have been usefully applied in specific situations and begun to mature as programs or concepts. Each flows from the following precepts:

- retaining US superpower status,
- advancing US interests,
- preserving US global leadership, and
- accepting responsibility for being powerful.

However, none of these new approaches appears to provide an overarching theme or foundation for US national security decisionmaking. A decade after the end of the Cold War, are these precepts sufficient to address emerging global security issues, or are they so based on traditional power politics that we are not recognizing an opportunity to set the world on a new path without jeopardizing long-term US security interests?

What has been lacking is the articulation of these precepts in a framework that works across all of the various types of threats and challenges facing the United States in the international security context. Is the United States seeking to lead, rule, or withdraw? Does the United States want a world where nuclear weapons remain critical components of its arsenal and therefore of others' as well? Do we want a world in which great powers seek coalitions against the United States because of American arrogance in its

dominance? Are we ready to embrace a new guiding principle that shapes our perception and reaction to international security challenges?

If a new paradigm is pursued in the security arena, it will require effective and ongoing leadership that demonstrates a consistent and coherent commitment to US nonproliferation policies. Too often in this decade, short-term domestic political considerations and bureaucratic orthodoxies have dominated American foreign policy decisionmaking. Increasingly, the United States appears engaged in a discussion with itself that alternates between imposing its way and being indifferent. When it then turns and looks for help externally, it is surprised by the anger and lack of helpfulness it finds, thus fulfilling the belief of some that multilateralism cannot be relied upon for promoting or protecting US interests.

The United States does need a new paradigm for addressing international security issues, and specifically the proliferation threat. While it has basic precepts (notably the four above) and has developed many useful nonproliferation tools (ranging from international export controls to national military capabilities), it has not been able to develop a domestic consensus around a coherent philosophy that would then determine which concerns are pursued and exactly how they would be pursued. Initially, poor leadership, conflicting national interests, and weak implementation by all key actors in the nonproliferation arena made the development of a new paradigm unlikely. But it is apparent that these problems are in part due to a lack of a consensus about the proliferation threat, and more importantly, how to respond to it. In other words, there is no overarching agreement about how to combat proliferation. Instead, there are disagreements about specific policies, their salience, and their efficacy.

### **COMPONENTS OF A NEW PARADIGM**

First, nonproliferation should be at the center of any American as well as any international national security paradigm. Given the enormous downside to US interests and global peace in general if there is a proliferation of NBC weapons, *nonproliferation efforts and concerns must become the driving force behind American foreign policies.* For



all of the Cold War era, the United States was driven by the threat of the Soviet Union and its nuclear arsenal. Its foreign policies, in Africa, Asia, or Europe, whether appropriate or not, were oriented by this threat. In the last decade, the United States and the UN Security Council have claimed rhetorically that the proliferation of weapons of mass destruction (WMD) is the greatest threat to US security and that of the international community. Now it is time to practice what we have been preaching, or expect to confront a world where numerous states are armed with WMD and intent on threatening to use, if not to actually use, them.

Second, this paradigm question is not one of whether there is a shift to defenses from offenses or whether we use multilateral agreements or unilateral initiatives. It is a question of determining what is the endgame and then figuring how best to get there. Taking this approach means that decisions about missile defenses are strategic in the sense of fulfilling some aspect of a larger strategy, just as implementing export controls or sanctions might be. Having a national missile defense cannot be the endgame since it does not address many potential international proliferation threats. In the same light, multilateral arms control agreements are just another tool in an effort to achieve the larger objective of a world free of NBC weapons and thus a world without the active capability to destroy itself and its environment.

Third, a nonproliferation paradigm must have at its core a true commitment to WMD disarmament, i.e., countries must truly want to not only prevent further proliferation of NBC weapons, but also work to eliminate their own reliance on these weapons for security. In the current anarchic international system, states will not be likely to give up their WMD weapons when the Permanent Five (P-5) members of UN Security Council appear dedicated to retaining and relying upon their own. So as the dominant state with the least to lose in terms of security, the United States must be a responsible leader and declare its intent to move away from its reliance on nuclear weapons. It then must make that commitment quite apparent in its military force posture and resource allocation. This does not require a call for immediate nuclear disarmament, but a clear enunciation of

its commitment to vertical nonproliferation and to the delegitimization of nuclear weapons. The United States must then follow up this unilateral move in negotiations with the other nuclear weapons states, who must be brought on board or forced to face negative public and diplomatic fallout.

The United States must use every level of activity and every tool to implement effectively its new commitment to nonproliferation. The complex world must be matched by a complex set of policies and programs that create incentives for nonproliferation while also hitting hard at noncompliance with international and regional nonproliferation norms and obligations. For example, nonproliferation efforts with North Korea are most likely to be successful if the United States and North Korea's neighbors develop a package of activities aimed at supporting financially and politically the dismantlement of North Korea's various WMD capabilities and ending its destabilizing missile exports. These incentives should be designed to get North Korean behavior in line with international nonproliferation norms; however, they may have to be pursued against the backdrop of the potential for political isolation and even military action if threatening behavior reappears. Establishing and maintaining the regional and American commitment to such a delicately balanced strategy to prevent WMD proliferation in North East Asia will require strong and solid US leadership that recognizes Russian, Japanese, South Korean, and Chinese interests, and engages these countries as partners in addressing the North Korean proliferation threat.

Unilateralism will not suffice, but neither will multilateralism. Rather, what is required is a balanced program of effort that resorts to multilateral approaches when needed, but is willing and capable of unilateral activities when necessary. With the United States in the lead, the international community should pursue a balance that recognizes differences in objectives and concerns, but finds areas of complementarity and agreement. The fraternity of concerns emerging from the threat of NBC proliferation should provide a basis for collaborative acts that seek to overcome public and governmental complacency, isolate countries of concern, eliminate such countries'

eliminate such countries' NBC capabilities, and promote a global nonproliferation norm.

The key to successfully coping with the threat of NBC proliferation rests on approaching it holistically and pragmatically. It requires ongoing, sustained attention and high-level engagement and leadership. The public, in the United States and elsewhere, must be seen as a significant actor that, once aroused, can be a powerful force in the nonproliferation equation. In addition, the substantial role of legislatures should be recognized, and they should be drawn into nonproliferation activities in constructive ways. They should be partners in this battle, not labeled and treated as adversaries. No one set of activities can sufficiently address proliferation threats since they may encroach on international, regional, and national interests. At all of these levels, it is necessary to weave a web of enlightened engagements, while always being inspired by the nonproliferation goal.

Specifically, international agreements must be seriously engaged in, actively promoted with the public, and significantly supported with resources and energy. It is important, however, not to overburden recently established international norms and institutions with expectations about enforcement, membership, and compliance. States will not immediately trust international groups, nor will they become suddenly transparent about current or even past NBC activities. This will be especially true if the organizations are insufficiently funded (as is the IAEA), not given high-level and quality attention (such as the CWC and BWC), or perceived as being secondary to domestic concerns or politics (such as the CTBT in the United States, or UN Security Council deliberations at times). These institutions are not ready to assume the responsibility for compliance, and they cannot be expected to become effective vehicles for enforcement of international nonproliferation obligations in the near term. Eventually, these international agreements and organizations could become meaningless unless their current limitations are recognized and supplemented by unilateral, bilateral, and regional efforts. International agreements, however, are crucial to creating the normative framework and umbrella under which regional and national nonproliferation efforts can thrive.

Regional nonproliferation efforts that contain and eventually eliminate NBC weapons capabilities must be combined with other activities that address underlying political tensions and problems. If export controls and international monitoring buy time, then it is critical that there be a strategy to exploit this time to promote nonproliferation. In this new paradigm, states must choose which "side" they are on, just as was true during the Cold War. They must make a sincere commitment to changing the regional political dynamic so that the motivation for NBC weapons is removed, even if it means helping to rid the region of a "rogue" leader or collaborating in containment of the threat by encircling the country of concern with some type of missile defense. The successes symbolized by CFE and INF that stabilized central Europe and eliminated the threat of war in the region demonstrate the potential for altering the proliferation dynamic in East Asia, the Middle East, and South Asia. Positive regional nonproliferation efforts, which build confidence between states about each other's intentions as well as enhance the transparency of military capabilities and planning, need to be developed by states within respective regions, but can be facilitated by the help and leadership of such key states as the United States, Russia, and China.

Finally, at the national level, domestic activities ranging from increasing public awareness to technical preparedness need to be pursued. For example, the US interest in national missile defenses as currently being promoted is counterproductive and unlikely to address the proliferation threat adequately. But it is clear that missile defenses could be a very effective way of isolating problem states, and undermining their ability to threaten the use of NBC weapons. Responsible leadership on this issue could turn what at present often sounds and looks like arrogant and aggressive unilateralism into an effective tool for regional nonproliferation. The web of activities, much of which already exist, will only be successful if the United States understands its leadership role and that the tone of its leadership will be a determining factor. Unilateralism, based on self-interest or short-term political needs, can not be the basis for international support. However, responsible unilateralism, i.e., unilateral moves

that are built on informed coalitions and extensive, ongoing high-level diplomacy, may be.

### **THE BOTTOM LINE**

The United States and others (but the United States more than others) have an opportunity to lead the world onto a path heading toward a world free of the fear of the use of WMD. To borrow and broaden slightly the words of Jayantha Dhanapala, Under-Secretary-General for Disarmament Affairs at the United Nations, the public is “tired of living under the [NBC] shadow, tired of subsidizing the [NBC] genie, and tired of the insecurities that attend the selective possession and consequently the inevitable proliferation of [NBC] weapons.” Defeating WMD proliferation should be more than a rhetorical gesture; it should become our primary concern in developing and implementing foreign policy. It should provide the frame on which policies are woven at the international, regional, and national levels. But just as the Cold War went on for over 50 years, so might this “war.” Thus, the United States must rally popular support, since that will provide the foundation for the sustained, long-term commitment needed to achieve success against the scourge of NBC proliferation.

# GLOBAL POLITICS AND NUCLEAR NONPROLIFERATION

by Christine Wing  
The Ford Foundation

This paper starts with a simple point. Since the time when most nonproliferation and arms control agreements were negotiated, the world has changed in important ways, and we need to discuss how those changes affect the prospects for nonproliferation. What follows is an initial effort to help frame that discussion. The basic argument is that the structure of global politics shapes the incentives and disincentives for proliferation, the nature of negotiated agreements, and the capacity to enforce adherence to international treaties and norms. Because the end of the Cold War transformed the structure of global politics, the dynamics of proliferation and nonproliferation have changed as well—though with consequences that are still hard to predict.

## THE COLD WAR AND NONPROLIFERATION

The “Cold War” has never been wholly adequate for describing the period from the later 1940s through the fall of the Berlin Wall and the collapse of the Soviet Union.\* How-

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\* Emphasis on US-Soviet military and ideological rivalry obscures or omits many other important characteristics of the past five decades. Processes of decolonization in Africa, Asia, and the Middle East—often accompanied by very *hot* wars—transformed political, social, and economic life for huge numbers of people. The assumption, commonly held in the United States, that the Cold War was principally about ideological and military competition, ignored the extent to which that competition concerned economics—what parts of the world could be integrated into the emerging global capitalist system, and what parts were off limits. Finally, the tendency to attribute a monolithic quality to the Cold War—especially now, as it enters into history—obscures the many challenges to US-Soviet power: challenges from populations and

ever, the concept does capture the military rivalry between the United States and the Soviet Union, and the system of East-West alliances that built up around it. And that rivalry did provide structure to political and military relations between many states. Even conflicts in the so-called periphery of the dominant actors often became incorporated into Cold War logic; or, sometimes, the “discipline” of Cold War dependencies prevented the outbreak of conflicts when they could threaten the major powers’ greater interest in system stability. Thus we can speak of an *international* security system during the years of the Cold War, even though its reach was not truly global. This system was essentially bipolar and stable. It certainly did *not* provide security for large numbers of people, or even, necessarily, for states. There were many wars and many deaths. Yet none of the wars led to collapse of the system itself, nor to the destruction of the dominant states.

But this is not the full story. Growing up alongside and within the Cold War system was a new set of multilateral institutions, embodied in the UN system. Formal responsibility for maintaining international peace and security resided with the United Nations. The permanent members of the Security Council (who also were or became the declared nuclear powers) always could exercise disproportionate power within the United Nations. Nonetheless, the United Nations also provided a mechanism through which other states could raise issues and shape the ways in which they were acted upon.

Thus a full description of the Cold War security environment needs to take into account two structures: the essentially bipolar US-Soviet

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governments within each bloc, from nations outside the East-West alliance structure, and from China, which had an uneasy and changing relationship to both the United States and the USSR.

military rivalry, whose political form was the division of large parts of the world into East-West alliances; and the multilateral United Nations, dominated by, but not subordinate to, the major powers in the East-West conflict. It was the interaction of these two systems that led to the demand for, and the negotiation of, efforts to limit the spread of nuclear weapons.

Nuclear weapons undergirded the US-Soviet rivalry. Indeed, one might argue that nuclear weapons were the *sine qua non* of the Cold War: without the acknowledged mutual capability to destroy one another, either the United States or the USSR might have been more proactive in seeking to redefine the World War II divisions between East and West. At the same time, nuclear weapons, and the prospect of their integration into military doctrines of a growing number of states, could be potentially destabilizing, and these weapons carried the potential for massive destruction in either intentional or accidental war. This is why the Cold War era, constructed on nuclear rivalries, nonetheless produced efforts at nonproliferation and arms control.

Following China's nuclear test in the mid-1960s, both the United States and the USSR became increasingly motivated to restrict the spread of nuclear weapons. Already many other states, which had neither the interest nor the capability to develop nuclear programs, had sought limits on proliferation. When the goals of the primary actors in the Cold War became congruent with those of states that did not aspire to nuclear status, it was possible to negotiate the nuclear Non-Proliferation Treaty (NPT).

The NPT reflected a distinctly Cold War approach to nonproliferation. It assumed the primacy of the East-West conflict and did not threaten to undermine the military power relations of that conflict. Like the United Nations itself, the NPT offered special status to the World War II victors, now also nuclear powers. It was structured to assure that other states could not themselves acquire competing power. And importantly, from the beginning, the NPT made room for the most powerful nuclear states, i.e. the United States and USSR.

Of course, the NPT was not wholly effective. A number of important states stayed outside the treaty, some with declared programs,

some undeclared, and some keeping their options open. In one sense, these decisions not to join the NPT—particularly those of countries with active programs—represented a challenge to the treaty's prospects. However, as most of the challengers retained strong relationships, if not alliance agreements, with either the United States or the USSR, the fact that they remained outside the treaty did not threaten Cold War power relations, or the NPT's embodiment of those relations. Thus throughout the Cold War, the NPT worked quite well for the existing nuclear states, presumably helping to constrain the development of nuclear capabilities in at least some signatory countries, while not restricting quantitative and qualitative improvements in the arsenals of the nuclear weapon states.

One other fact is worth noting. Responsibility for monitoring treaty compliance, and detecting and resolving violations, resided within the UN system. The authority and power of the United Nations to address violations were rarely tested during the Cold War. The Iraqi research reactor at Osiraq may be an exception; North Korea's long refusal to sign a safeguards agreement is another. But neither constituted regime-threatening challenges at the time, and we do not know how the United Nations would have mobilized itself to handle more fundamental challenges—a question that comes to the fore once the Cold War is over.

## WHAT CHANGED?

The argument so far is that the NPT accepted and ratified the principal power relations of the day—that indeed, Cold War power relations were built into the heart of the treaty. Furthermore, even if some important powers remained outside the treaty for a long time (and some still do), throughout the Cold War years their capacity for undermining either the NPT or the Cold War distribution of power was limited, due to the influence of the United States and the USSR with their allies and partners.

Did it matter, then, when the Soviet Union collapsed, and the Cold War disappeared? It seems intuitively obvious that this must make a difference to nonproliferation efforts, in particular to the NPT's role and efficacy. But how is this the case? To begin to answer this question, it will help to look at two issues: the

changing nature of international politics, and the question of where the authority and power to act on behalf of the international system now resides.

### **The Nature of International Politics**

There are four points here. First, it seems clear that we are still in a period of transition in global power relations; not only is it difficult to specify the nature of global politics, but those politics are even now changing and sorting themselves out. It is the case that the United States is currently the preeminent military and economic power. Whether that means it is useful to describe this as a *unipolar* moment is less obvious. Europe is organizing itself into a coherent economic and perhaps military entity that does and will carry weight in the international arena. Parts of Asia have rebounded from economic crisis and in many cases are engaged in military build-ups. The United States, even if the largest power, is often acutely aware of limits on its abilities to shape global events. Eventual *multipolarity* seems possible, even if not all poles are equal in all respects. But many uncertainties remain, e.g., the political and economic future of Russia, still the repository of huge nuclear stockpiles; China's management of its economic growth, integration into the global economy, and nuclear capabilities; and the implications of economic globalization for state sovereignty and strategic policy.

Second, the loss of bipolarity has consequences on both sides of the proliferation/nonproliferation equation. It appears to increase incentives but simultaneously remove penalties for challenges to the nonproliferation regime. For example, important elements in the US policymaking elite apparently believe that the risk of WMD attack by "proliferant" countries is increasing. Because in some respects this *is* a unipolar system, the United States is able to ignore international opinion about the proliferation consequences of its actions, such as probable national missile defense (NMD) deployment in response to alleged increased WMD attack, or rejection of the CTBT. Regional powers, no longer subject to the exigencies of relations with one or the other superpower, have both a greater need and a greater opportunity to address security

threats—or expansionist desires—on their own terms; sometimes WMD development is their answer. Moreover, numerous states, signatories to the NPT and participants in other nonproliferation regimes, continue to export proliferant technologies and materials without serious threat of sanction from former or current allies.

Third, developments in Asia bear careful attention. The Asian continent (broadly defined) contains most of the nuclear proliferation worries currently on the international agenda: Israel, Iraq, Iran, Pakistan, India, and North Korea. Many of these countries have ready access to nuclear-related imports from Russia and China, or are themselves exporters of nuclear-related materials. There is the possibility for a nuclear rivalry between two major Asian powers, China and India. Conflicts in South Asia and the Persian Gulf/Middle East may be nuclearized. More generally, military budgets in Asia are on the rise and suggest that we face a shift in military power relations both within the region and between Asia and the rest of the world.

Fourth, if the United States continues to be the preeminent power for some time, we might expect continuing challenges to US power. Given that US conventional forces are so preponderant, such challenges may take the form of WMD attack—not necessarily nuclear, but chemical or biological; and not necessarily on US territory, but possibly on US forward-deployed forces.

### **Compliance Issues**

The fundamental question here is who has both the authority and the power to respond to violations of treaty obligations or generally accepted international norms. The theory—during both the Cold War and now—has been that this authority resides in the United Nations, backed by the power of dominant states. However, over the past decade we have seen that the United Nations lacks the power to act in the absence of serious involvement of the United States. Although this was the case during the Cold War as well, at that time other conditions also applied: notably, that Russia and China had to concur with proposed UN actions. This is still true. However, the absence of Cold War politics means that although there are

more opportunities for agreement among the P-5, the United States is more willing to act on its own, outside the UN framework, if it believes its interests are sufficiently at stake and likely to be blocked within the United Nations.

Thus the United States is key to how violations of internationally agreed norms or treaties are handled, by virtue of its power if not its authority under international law. But the United States, like other nations, does not act outside of its perceptions of its national interest. When we come to issues concerning the violation of nonproliferation treaties or norms, they will likely be approached in a way that is, at a minimum, congruent with US interests—if not guided principally by those interests.

### SOME FINAL QUESTIONS

If this line of argument is correct—that the changing nature of global politics means the changing nature of nonproliferation regimes—then we are left with a host of questions. Here are three, by way of conclusion:

*First, what will it take for the NPT to fulfill its core missions of stopping proliferation and promoting disarmament?* The implication of the discussion here is that, to be successful, nonproliferation regimes need to be reasonably consonant with major power relations or security systems. However, the NPT as currently constituted reflects a set of power relations whose contours have changed considerably. The NPT gives special status to nuclear states whose role has diminished or changed. In particular, Russia, while still a major power, does not have the USSR's Cold War-ability to influence policies of allies and partners, and, in addition, faces enormous domestic challenges. The United States, the most powerful member of the NPT, maintains diplomatic and rhetorical support for the treaty, but also is seriously considering steps (e.g., undermining the ABM treaty and deploying NMD) that most analysts see as promoting proliferation. On the other hand, India and Pakistan can no longer be seen as threshold states, yet they remain outside the treaty.

*Second, what kind of global power relations would increase the likelihood that the NPT or other nonproliferation regimes, could be effective, and what are the prospects for the emergence of such power relations?* It

seems probable that as long as US military and economic power is so disproportionate, nonproliferation efforts will be heavily shaped by US interests. Can we think forward to imagine how this may change? What would be the implications of a more multipolar distribution of power? Can any of this be shaped by conscious policy choices? Can we envision new approaches to the multiple proliferation challenges that we see developing in Asia?

*Third, will it be possible to make progress on nonproliferation without addressing the inequalities that have been built into global governance systems?* The United Nations embodies the settlement of World War II, a war that concluded over 50 years ago. Both economic and military power relations were shifting well before the end of the Cold War, and have only accelerated since then. Though life is short and UN reform would seem to require an eternity, it is hard to see how we can truly move forward on these issues without a United Nations whose assignment of responsibility more closely tracks political realities. What can we do to hasten that process?

# A GRAND NONPROLIFERATION BARGAIN

by Michael Barletta

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The next US president should leverage mounting international concern about US deployment of NMD to gain policy concessions and greater commitment to nonproliferation on the part of China, Russia, and our European allies. By exploiting the possibility of deploying NMD to strike a “grand nonproliferation bargain” with key states, the United States can enhance its national security more effectively than by building NMD. Although negotiating such a political bargain with the most influential countries would require significant concessions by each (including the United States), it would better serve the national security of all—as well as that of the broader international community—than present policies.

This political bargain would be based on four policy commitments, whose fulfillment would be mutually contingent:

- Chinese, French, and Russian support for US leadership in coping with the proliferation threats posed by the DPRK and Iraq;
- Chinese, French, and Russian support for existing Nuclear Supplier Group (NSG) guidelines;
- termination of proliferation-sensitive nuclear, biological, chemical, and MTCR-restricted missile exports by all of the P-5; and
- US non-deployment of NMD and continued adherence to the ABM Treaty.

The United States would continue research on NMD technologies, but would refrain from deploying a national antimissile system and continue to abide by the ABM Treaty. In tacit but concrete exchange, it would expect China, France, and Russia to afford discretion to the United States in designing policy toward Iraq, both within the UN Security Council and in military operations in the Persian Gulf. US non-deployment of NMD would also be contingent on China and Russia definitively terminating missile and nuclear technological transfers to

Iran and Pakistan, and supporting the United States in its efforts to dissuade the DPRK from developing and exporting ballistic missiles. This bargain would also require Chinese, French, and Russian support for existing NSG guidelines on nuclear exports, and hence preclude revising the guidelines to establish a special export regime for India.

Through a political bargain with these countries, the United States can avert the future emergence of threats that NMD is designed to address. Such a comprehensive nonproliferation deal would thus respond directly to US concerns about so-called “rogue state” missile threats, and to Chinese, European, and Russian concerns about the impact of NMD deployment on their interests. Although such a grand bargain would require concessions by each party, the security of all would be significantly greater than in a future global environment of destabilizing NMD deployments, escalating countermeasures, and further NBC/M proliferation.

Undoubtedly, reaching and implementing such a bargain would be difficult (e.g., in agreeing on precisely which NMD developmental efforts would be permitted, and in proving that sensitive exports are halted). To avoid inciting domestic political opposition and appearing to relinquish sovereignty, moreover, the strategic partners could not codify this deal in a formal treaty. However, while technical and political obstacles to effective implementation would be far from trivial, the United States already faces comparable obstacles to deploying an effective NMD system. Moreover, along current trajectories, each actor is pursuing policies unilaterally that ultimately will have quite negative repercussions for their own security interests, because of how the others will respond. If defined as a comprehensive whole, therefore, each party should be willing to sacrifice something to get the benefits of the overall package.



From a nonproliferation perspective, such an approach would encourage partnership among the major powers in resolving what their actions and reactions make a common problem, while preserving and creating preconditions for strengthening the existing international arms control architecture. By thinking strategically and acting decisively, the next US administration can take advantage of the emerging international crisis over US NMD deployment as an extraordinary opportunity to boost US and international security through major power collaboration on averting proliferation threats.

# ASSESSING FEASIBILITY OF PROPOSED MISSILE DEFENSE TECHNOLOGIES

by Joseph Cirincione

Carnegie Endowment for International Peace

## AN INDEPENDENT SCIENTIFIC EVALUATION

US policy on ballistic missile defense, both national and theater, would be substantially informed by an independent evaluation of proposed missile defense technologies by a respected scientific review panel.

In matters of national defense, the United States has often turned to its scientific community to provide answers to the security threats faced by the nation. Although many distinguished American scientists have tendered their opinions on the issue of ballistic missile defense, the scientific community as a whole has not been engaged in an evaluation that could help resolve the complicated problems faced by any proposed system.

Such an evaluation was conducted by the American Physical Society in 1987 on the feasibility of Directed Energy Weapons (DEW), then the leading contender for providing effective ballistic missile defense. A similar unclassified review should be conducted early in the next presidential administration on the feasibility of using Kinetic Energy Weapons (KEW) for this mission.

The review panel should be charged with investigating both the current and future potential of KEW to provide the United States with missile defense system that could locate, intercept, and destroy ballistic missiles launched by a hostile state. The panel's reports would provide the scientific community, the administration, and the wider interested public with basic technological information about KEW. It would serve as a technical reference point for better-informed public discussion on issues relating to missile defense.

The review should also address important issues regarding target acquisition, discrimination, and system survivability, as well as issues concerning command, control, communication, and intelligence (C<sup>3</sup>I), systems integration, software creation and reliability for battle management, and overall system complexity.

# THE PROLIFERATION CHALLENGE BEFORE THE UNITED STATES

by Lewis A. Dunn

Science Applications International Corporation

The proliferation and use of nuclear, chemical, and biological weapons (and associated delivery means, including ballistic missiles) are the most serious threats today to American security and global order. The risk is high that before the next US administration leaves office, a hostile proliferator or non-state entity will use chemical or biological weapons—or even nuclear weapons—against American friends, American forces, or the American homeland.† Intensified actions are urgently needed, most especially to (1) prevent a spiraling erosion of existing nonproliferation regimes; (2) buttress the full range of deterrence and defense capabilities to protect US forces, friends, and homeland; and (3) head off or respond decisively to the next use of weapons of mass destruction, most especially biological weapons.

## PREVENTING REGIME EROSION

Traditional nonproliferation efforts, from supplier controls to international norm and treaty building, have helped greatly to slow proliferation. This regime has made it technically harder to acquire NBC weapons (or to develop more sophisticated or robust NBC capabilities), while shaping perceptions of the need to do so. But unless checked, future developments could at best weaken and at worst severely erode nonproliferation efforts. There are several priority areas for action.

### Support and Extend Cooperative Controls with Russia and Former Soviet States

Diversion of nuclear weapons materials or biological weapons expertise from Russia or other states of the former Soviet Union threatens instant proliferation and long-term proliferation chain reactions. Financial support for cooperative programs to contain this threat

should be continued and expanded. Within the first months of the new US administration, joint working groups of the United States, Russia, and other partners could be established to identify lessons learned and next steps, and to provide a new highest-level political mandate for action. Particular attention should be paid to actions to contain possible flows of trained personnel from Russia and other former Soviet states to countries of proliferation concern.

### Pursue/Support Political Change in Problem Countries

US policy needs to support and pursue political change in Iraq, in Iran, and between the Koreas. Absent a change of regime in Iraq, Saddam will continue his steady “creep-out” from international controls on his NBC ambitions. Even assuming resumption of a full set of international inspections, those inspections would likely channel but not fully eliminate his NBC ambitions. Future crises and resumed advances must be expected—and possibly an attempted breakout at a future moment. Consequently, past covert actions to topple Saddam need to be reassessed and, if feasible, means identified to pursue more vigorously the goal of regime change in Iraq.

Elsewhere in the Persian Gulf, there are pressures on the Iranian regime to match perceived Iraqi biological weapons (BW) capabilities, retain at the least a chemical weapons (CW) option, and move closer toward a nuclear weapon capability. At best, it may be possible to head off more open WMD deployments. But this will depend heavily on how the internal political situation continues to evolve in Iran, as well as on perceptions of Iran’s security requirements. A less radical, more domestic economic development-oriented regime in Tehran could be prepared to moderate but not necessarily completely roll back Iran’s WMD activities, e.g., stopping with a nuclear option rather

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† This paper intentionally does not address the challenge from non-state actors.

than developing a concrete capability. Despite potential risks, we need to lean forward in seeking to work with the current regime.

In Asia, the US-DPRK Agreed Framework has bought time. Growth of economic, political, and human ties between the two Koreas could reinforce nuclear moderation in Pyongyang. Here, too, US policy should be supportive of an evolving political relationship. At the same time, a robust US deterrent and defense remain essential, not least to provide a stable framework for possible cooperative ties on the Korean peninsula.

### **Strengthen Security Ties with Gulf Allies**

The danger is increasing that a number of key US friends or allies in the Gulf will decide to pursue offensive deterrent capabilities. This reflects growing fear that reliance on the United States does not offer a satisfactory answer to Iraqi and Iranian WMD programs—BW now and quite possibly BW and nuclear weapons later. We need to counter that fear by taking action along several lines, by reducing the vulnerabilities of US deployed forces to the use of chemical or biological weapons (see below); working with our allies to enhance their own protection capabilities (see below); and further institutionalizing the US security connection. The latter could include not only a continued or expanded peacetime engagement posture, but also exploration of a more formal security guarantee.

### **Pursue US-Russian Nuclear Restructuring—But by Other Means**

The current US-Russian nuclear stalemate poses a two-fold threat to nonproliferation. It both heightens the perception that nuclear weapons are essential instruments of international power and widens the gap between the NPT's nuclear and non-nuclear weapon states. Over time, both impacts threaten the legitimacy and political foundation of our nonproliferation efforts. At the same time, for many reasons there seems little prospect that formal nuclear negotiations will make more progress in the foreseeable future than they have during the past decade. Therefore, we need to consider more non-traditional approaches, including parallel unilateral steps to reduce numbers of nu-

clear weapons, reshape postures, and move toward coordinated restructuring of Cold War nuclear forces, structures, and doctrines.

### **Defuse the Risks of Nuclear War in South Asia**

The risks are high that nuclear weapons could be used in a future India-Pakistan military confrontation and escalating clash—whether because of miscalculation, accident, or intention. Avoiding such a first use of nuclear weapons in over a half-century must be a high nonproliferation priority. Ideally, the United States and other concerned outsiders could seek to defuse the continuing Indo-Pakistani confrontation over Kashmir, since this remains the most likely trigger of conflict and escalation. Realistically, prospects appear poor for helping to foster a diplomatic settlement, or indeed, even for convincing Pakistan that its nuclear weapons are not an umbrella under which to pursue a more adventuresome policy. Nevertheless, given the stakes involved we should still seek to do both.

At the same time, US efforts to lessen the risk of nuclear escalation should focus greater attention on more limited actions. These include such steps as encouraging nuclear confidence building (e.g., discussions of doctrine, “red lines,” risks, and limits between Delhi and Islamabad); authorizing a non-official but well-informed dialogue between US experts and counterparts in the two countries on nuclear command-and-control, safety, and accident avoidance; and being prepared with other outsiders to bring to bear political, intelligence, and other assets to help contain the risk of nuclear escalation in a future confrontation. Some of these actions may clash with the spirit of US nonproliferation policies. That is a necessary price if the risk of nuclear conflict—with its own implications for the global nuclear future—is to be contained.

### **BUTTRESSING CBW DETERRENCE AND DEFENSE**

Stimulated by the Gulf War wake-up call, the United States has taken a number of important steps to enhance US military capabilities to protect ourselves, our friends, and the American homeland against use of chemical or bio-

logical weapons by a hostile small country. For example, new technologies have been fielded (e.g., for BW detection); a process begun of vaccinating US forces against the “queen” of BW agents, anthrax; technical improvements have been made in today’s theater missile defense systems and new technologies are being pursued; and new military doctrine for operating in a chemical and biological (CBW) environment has been developed. More generally, the military services and the war-fighting commands in varying degrees have come to acknowledge their need to plan and operate successfully in the face of CBW threats. Cooperative programs with key allies have been initiated. Though often considered under the heading of “counterproliferation,” these deterrence and defense actions are important non-proliferation measures in their own right. They provide assurance to US friends and allies that they can ensure their security without recourse to pursuing their own WMD and missile capabilities to match those of their adversaries.

Looking ahead, it will be important to continue this process of incremental enhancement of US and allies’ military capabilities to counter CBW threats and use. In addition, two priority initiatives stand out: enhancing deterrence through a posture of holding adversary leadership accountable for the use of CBW, and cooperative efforts with US allies to protect their populations against CBW use.

### **Holding Leaderships Accountable**

Deterring the use of chemical or biological weapons against US forces, friends, or homeland by hostile proliferators remains our first line of defense and would be far preferable to prevailing militarily and managing the wider consequences after the fact. Current US deterrence posture rests in part on the hope that a perceived US capability to “fight through” CBW use—and thereby deny an adversary the benefits of such use—will contribute to non-use decisions. Perhaps even more so, US deterrence posture emphasizes that CBW use will result in “overwhelming and devastating” retaliation. At the least, this threatens large-scale conventional retaliation. Its studied ambiguity leaves open the possibility of escalation to a nuclear response.

This posture entails significant deterrent gaps, which could result in a failure of CBW deterrence. In particular, an adversary’s leaders may well believe that they can withstand a US conventional response—especially if that response can only be implemented incrementally over a number of months. Questions are also likely regarding the credibility of a nuclear response, not least in reaction to limited, low-lethality use of biological weapons.

A posture of holding adversary leadership accountable for the use of chemical or biological weapons would fill these deterrent gaps. It would target what those leaders value most: their personal well-being, power, and ultimately their lives. In practice, its implementation could range from direct military action against a leader, through special operations to seize and bring him to trial, to longer term covert efforts aimed at toppling that regime. Questions clearly exist concerning the risks of such a posture. Past experience suggests, moreover, that its feasibility is limited, at least with current plans and preparations.

Nonetheless, given the risks and costs in lives lost of a breakdown of deterrence, this option needs to be made a part of US deterrence posture and of potential responses to CBW use. To that end, the next president should announce publicly on January 20, 2001, that in the event of use of chemical or biological weapons against US forces, allies, territories, or allies’ homelands, the United States will take all necessary steps to hold the leaders accountable for their actions. In turn, as part of that statement, it should be announced that the president for the very limited case of the use of chemical or biological weapons has rescinded the executive order banning assassination. In turn, he should direct the appropriate agencies to develop plans and operational capabilities, backed by intelligence collection and technologies development, to implement a policy of holding leaderships accountable.

### **Ally Population Protection from CBW Attack**

Depending on the particular scenario, use of chemical but particularly biological weapons against unprotected populations could well result in mass casualties, on the order of tens if

not hundreds of thousands of fatalities or even more. The vulnerability of ally populations to such attack is a potential Achilles' heel in current US plans to protect our friends and interests in such regions as the Persian Gulf and Northeast Asia. Faced with the threat of massive casualties, key allies may "just say no" to an American presence or request for support of coalition operations. Not least, the potential cost in human lives from CW and especially BW against civilian populations alone demands cooperative steps to protect populations.

Recent US cooperative defense initiatives with our allies in the Persian Gulf and in Northeast Asia are a step in the right direction, but these actions need to be intensified. In so doing, the goal should be to work with our allies first to help them to assess their population protection assets and needs, and then to move toward a full spectrum of protection measures—from means of warning and alert, through personnel protection, to medical surveillance and response. Unlike 1950s nuclear civil defense efforts, moreover, protecting ally populations from CBW attack appears neither infeasible nor prohibitively costly. Indeed, some of these protective measures, for example medical surveillance for prompt detection of BW attack and antibiotics stockpiling, are also relevant to protecting the US population.

### **RESPONDING DECISIVELY TO THE FIRST USE OF BIOLOGICAL WEAPONS**

The first use of BW in the 21st century will be a global turning point. In many respects, it may be as seminal an event in shaping international perceptions of the risks and benefits of using biological weapons as was the bombing of Hiroshima in shaping perceptions of nuclear weapons. If such use is successful—and if as was the case in the mid-1980s when Iraq used chemical weapons against Iran the international community fails to respond effectively—many countries can be expected to accelerate their pursuit of BW. In turn, the risks that there will be additional, more frequent recourse to such weapons in regional and other conflicts will increase greatly. It is in the US interest to ensure that we and other countries send a clear

message that use of BW is not acceptable to the civilized world.

As a first step, the United States needs to begin high-level consultations with its close allies and then with others to seek agreement that the first use of BW in the 21st century will be a major turning point. In turn, agreement should be sought that such use must be met with decisive punishment—regardless of the user—and a public declaration made to that effect. Further, while other countries will be reluctant to commit themselves to specific actions they would take or support in response to BW use, their agreement to respond should also be pursued. At the least, this would provide a foundation for prompt action in such a situation. The stakes are high, and we will have only one opportunity.

# FIVE PROPOSITIONS ON NONPROLIFERATION

by George Perkovich

W. Alton Jones Foundation

## OVERVIEW

Government agencies possess many policy ideas and prescriptions to strengthen export controls, widen transparency, refine terms of a prospective fissile material production cutoff treaty, and intensify cooperative threat reduction programs with Russia. Experts have developed options to strengthen the IAEA through the 93+2 framework and other means. Rather than add more items to programmatic lists, this paper will suggest quixotically that the greatest need is to revive a bipartisan commitment to make nonproliferation a paramount US national security objective. To this end, several propositions are suggested for public articulation and debate by the next US administration.

This paper also raises several major questions that would come into play if nonproliferation were to become a first-order preoccupation. Addressing these questions would require the kind of grand strategic debate that Americans have avoided for the past 10 years.

## BIPARTISAN CONSENSUS

There is no longer a truly bipartisan consensus that nuclear nonproliferation can or will be successful; achieving such a consensus should be a top priority of the next administration and Congress.

Iraq's near-success in acquiring WMD despite adherence to the NPT, and the subsequent difficulties UNSCOM encountered in enforcing Iraq's disarmament, have led many to conclude that nonproliferation will not work. The nuclear tests by India and Pakistan have deepened the pessimism. The Rumsfeld Commission and related debate over the ballistic missile threat have led many to conclude that the proliferation sky is falling: proliferation cannot be stopped, and the nonproliferation regime is a tissue of liberal hopes and lies. When was the last time a senior member of Congress gave a ringing endorsement to the nonproliferation regime?

Yet, the fact is that the nonproliferation regime has been extraordinarily successful. India, Israel, and Pakistan have acquired nuclear weapons, but they never agreed not to, and they are not threats to the United States or its allies. Moreover, these states' nuclear programs have been constrained sharply by the nonproliferation norm established by the NPT. Every other country (except Cuba) has joined the NPT. North Korea and Iraq cheated but were caught. The terms and normative support for the nonproliferation regime helped leverage the deal-making and punishment policies that have averted the Iraqi and North Korean proliferation that surely would have occurred had there been no treaty. Iran is hedging on its NPT commitments, but its acquisition of nuclear weapons is by no means inevitable and the nonproliferation regime provides a useful lever to prevent it from doing so. More positively, the nonproliferation regime and US policy helped end secret nuclear programs in Argentina, Brazil, South Africa, South Korea, and Taiwan. The denuclearization of Ukraine, Belarus, and Kazakhstan also were augmented by the norms and practices of the nonproliferation regime. The point is, this regime has been a great success. Dwindling recognition of this fact in Washington, especially on Capitol Hill and among Republicans, needs to be corrected as a first-order priority.

## US NATIONAL SECURITY

US national security will suffer enormously if international support for the nonproliferation regime is not strengthened, for two reasons. First, the number of nuclear weapon states will grow.

- States that are now of proliferation concern would find it easier and less costly to decide to acquire nuclear weapons, and their acquisition of requisite materials and know-how would become much more likely. The legal and normative bases for blocking Iraq's regeneration of WMD would be

eroded. Iran would face a much less costly choice in terms of international disapprobation, sanctions, and punishment.

- States that have basic nuclear weapons infrastructure and know-how, and that have begun nascent programs in the past, would be encouraged to rethink their current abstinence. South Korea, Taiwan, and Egypt come to mind here.
- The next generation of Japanese policy-makers would likely rethink Japan's adherence to the nonproliferation regime.

Second, US security would depend on alternative means of managing and/or combating proliferation. Those who devalue the nonproliferation regime seem to assume that alternatives can be created with greater effectiveness than initiatives to strengthen the regime. However, alternative means to manage and/or combat proliferation will not be effective.

- Export controls would be badly undermined as the level of international conformity in technology denial would decrease. With a weakened nonproliferation regime, the norm against abetting proliferation will dissipate and the procedures for enforcing the norm will wane. Export controls work to the degree that international suppliers cooperate.
- The dissolution or weakening of nonproliferation inspection practices would reduce US capacity to gather intelligence and assess the threat environment. Washington's capacity to protect against proliferation unilaterally would be badly undermined.
- Military preemption against would-be proliferators would be a theoretical option, but in practice would remain exceedingly difficult to execute. The United States and others would likely rule out preemption against Japan, South Korea, Taiwan, India, Pakistan, Israel, and others. The most likely candidates for preemption would be Iraq and Iran. Yet, knowledgeable policymakers have already recognized the great difficulties in identifying targets, carrying out effective military operations, and managing the international repercussions. Preemption would not be politically feasible without an

international norm and a regime whose violation would give the United States an internationally recognized just cause for preemption.

- Ballistic missile defenses could be posited as an alternative for dealing with a "proliferated" world. Yet, here too, technical and political difficulties abound, and such systems are useless against delivery systems other than ballistic missiles. Cruise missiles would be especially attractive to a would-be proliferator. The CIA has recognized as much, though the agency's assessment has not been assimilated by Congress. Furthermore, to achieve even partially effective ballistic missile defenses would likely require cooperation with Russia and China, for example, in tolerating US deployment of space-based assets. Such cooperation is unlikely if the United States pursues ballistic missile defenses in the manner it has thus far.
- Threats of retaliation, of course, will continue to be relied upon to manage threats arising from proliferation. Yet deterrence carries more weight in a strong nonproliferation regime than a weaker one. The stronger the taboo against possession and potential use of nuclear weapons, the greater the credibility of threats to retaliate against anyone who would violate the taboo. Conversely, the more "normal" and accepted that nuclear weapons become, the lower the restraint against their use.

### **QUESTIONS FOR A BIPARTISAN STRATEGY**

If US and international security would be enhanced by a stronger nonproliferation regime, then the United States needs to regenerate a bipartisan strategy to strengthen it. Such a strategy cannot be effective if it fails to address four big questions.

*First, how can the United States (and others) generate the international political will to strengthen measures to prevent and/or punish proliferation?*

The nonproliferation regime rests on six pillars: the norm against nuclear weapons; cooperative export controls; controls on plutonium reprocessing and fuel-cycles; intrusive



inspections; increased transparency; and robust enforcement.

Each of these pillars must be reinforced and strengthened. This strengthening requires widespread international support—particularly the political will of leading states of Europe, Asia, the Middle East, South America, and Africa. The need is to tighten the denial of technology, increase the means of detecting possible violations, and strengthen the certainty and severity of enforcement.

*Second, does the United States have a strategy to fulfill its treaty obligations to pursue the “total elimination of nuclear arsenals” and universal adherence to the NPT? If not, does it have alternative strategies for fulfilling its interest in nonproliferation?*

Parties to the nonproliferation regime and India (a key state) have made clear that their will to strengthen the regime depends on greater progress in fulfilling two of the regimes’ central principles. As demonstrated at the 2000 NPT Review Conference, parties demand clearer commitments to real steps toward the “total elimination of nuclear arsenals.” As an intermediary step, they emphasized the need for “a diminishing role for nuclear weapons in security policies.” The second big issue is the problem of “universality,” meaning the eventual adherence of India, Israel, and Pakistan to the treaty.

Clearly the tension between the nuclear weapon states (and India, Israel, and Pakistan) and the 181 non-nuclear weapon states over these two fundamental questions remains. Much more work needs to be done either to commit the nuclear weapon states (plus India, Israel, and Pakistan) to devise road maps toward elimination of nuclear weapons, or to develop an alternative “bargain” that would generate the international political will necessary to strengthen the nonproliferation regime. It is difficult to conceive of an alternative bargain that would win the widespread support garnered by the NPT bargain, but if the latter is not going to be upheld and the regime is likely to fracture, new thinking should begin. Without greater clarity on these fundamental issues, the tension between the “haves” and “have-nots” is likely to erode the regime over the next 10 to 20 years.

*Third, can the United States reconcile its perceptions of the role of nuclear weapons in US security and international politics with the perceptions of other important states?*

It is imperative that US leaders understand and act upon the symbolic nature of the debate and recognize that the “haves” and the “have-nots” are now talking past each other. National security officials of the nuclear weapon states tend to see nuclear policy and nonproliferation in military security and strategic terms, while most of the rest of the world sees nuclear weapons as symbols and instruments of political power. To the many, the current nuclear order represents inequity in the international system. The five permanent members of the UN Security Council happen to be nuclear weapon states; nuclear weapons are therefore seen as dangerous symbols of these five states’ disproportionate power in international politics. The many, including such states as Argentina, Brazil, Canada, Egypt, Germany, Ireland, Japan, Sweden, and others, demand nuclear disarmament and universal adherence to the NPT as a means to reduce the inequities of the international system.

Nuclear weapons become an attractive subject with which to pursue equity for several reasons. First, the NPT gives petitioners a treaty basis for insisting on real commitments toward elimination of nuclear arsenals. Second, precisely because the vast majority of states do not possess nuclear weapons and do not think they can be detonated in militarily or politically effective ways, demanding equity in this realm is “easier” than in other areas of international affairs. American officials may be unmoved by these equity arguments, but the point is that US interests require that they be addressed more openly and persuasively than they have been to date.

*Fourth, how might nuclear politics affect the United States’ capacity to preserve its hegemonic international position?*

International relations theory and history suggest that other states will be inclined to try to balance the power of a hegemon like the United States. The United States has an interest in preserving its global leadership. The United States is one of only eight states with nuclear weapons, yet partly because it is the world’s

strongest power and the primary shaper of the international order, others are tempted to “use” nuclear politics as a way to challenge US pre-eminence. For reasons suggested above, creating controversy over nuclear policies may provide a less costly, easier venue for states to challenge the United States than the areas of trade and international law. Although the United States may be no more recalcitrant in blocking pre-conditions necessary for the elimination of nuclear weapons than are Russia, China, and others, American refusal to take this objective seriously leaves the spotlight on Washington. This tendency is intensified because the United States, unlike Russia and China, is seen as a champion of an equitable world order, which in turn makes its inequitable approach to nuclear order seem hypocritical. Thus, US nuclear policy may increasingly undermine international acceptance of US leadership across the board.

US capacity to strengthen the nonproliferation regime will be undermined to the degree that the United States appears to be unilateralist in its conduct of nuclear policy specifically and foreign policy more generally. Sometimes the United States must act alone, either because others are unwilling or unable to join, or because it would take too long to persuade them to join. But the frequent resort to sanctions, like the impulse behind NMD policy, contributes to the perception of American arrogance and bullying as well as lack of appreciation of the value of multilateral cooperation in resolving global problems. This leads others to stand on the sidelines in protest. To the extent that export controls, inspection protocols, transparency, and enforcement require international support, the United States must tone down its unilateralism. This requires bipartisan and executive/legislative branch cooperation.

### **US RELATIONS WITH RUSSIA AND CHINA**

US nonproliferation objectives will prove extremely difficult to achieve without more cooperative relations with Russia and China. These two states are permanent members of the UN Security Council. As such they are key enforcers of the nonproliferation regime, and their importance in this regard can be seen in the

Iraq case. Russia and China are also the most likely suppliers of ballistic missile and nuclear weapon materials, components, and know-how to states of proliferation concern (i.e., Pakistan, Iran, Iraq, North Korea, and India). Russia and China are the major powers most resistant to the transparency and inspection regimes central to nonproliferation. Russia and China also are perhaps the most difficult players in potential efforts to make progress toward nuclear disarmament—a reality obscured historically by US recalcitrance on Article VI disarmament questions.

The central issues causing Russo-American and Sino-American disputes in the nuclear realm are well known and do not need to be rehearsed here: national missile defense and the militarization of outer space; NATO expansion (Russia); and Taiwan (China). Each of these three big issues affects the others in ways that the Clinton administration and the Congress have not adequately acknowledged and acted upon.

Regarding ballistic missile defenses, the broad point is that the United States has proceeded in a backwards fashion. It has pursued controversial national missile defense plans prior to intense engagement with Russia and China on alternative means to address legitimate US and global proliferation concerns. The United States ought to be able to make strong cases about potential threats to the United States (and others) from North Korea, Iran, and Iraq, and challenge Russia and China to join seriously with Washington in combatting these threats through export controls, diplomacy, and other means, including possibly boost-phase ballistic missile defenses. Putting things in this order makes more strategic and geopolitical sense than does the course the United States has taken thus far. Moreover, trying cooperation first would buttress international support for the overall US nonproliferation strategy.

In a similar vein, China has a vital role to play in nonproliferation in South Asia. China’s past and ongoing support for Pakistan’s missile and nuclear programs is clearly contrary to global interests and China’s own nonproliferation commitments. It also impedes Sino-Indian relations. Greater US efforts at the highest levels should be devoted to winning Chinese co-

operation for constructive engagement in South Asia. This should be a high priority of the next administration. However, China's willingness to cooperate will be dashed if Beijing believes that the United States and India are predicating their improved relationship on a tacit or explicit strategy of "containing" China. Such containment should be pursued only after more constructive initiatives are tried.

### **REFORM OF THE UN SECURITY COUNCIL**

In the near-to-mid term, the future of the nonproliferation regime will become entangled with the politics of reforming permanent membership of the UN Security Council.

Successful nonproliferation requires much greater cooperation among the P-5. If the P-5 cannot agree on enforcement in Iraq, Iran, and elsewhere, the regime's effectiveness will wane. Progress here will depend on American-Russian-Chinese relations in overall nuclear and security policies, but the three states cannot afford to neglect their broader responsibilities for the overall nonproliferation system.

Security Council reform, particularly the question of expanding permanent representation, probably cannot be put off forever. If and when the expansion question is fully addressed, the matter of NPT membership will be key. Given the ultimate enforcement role of the Security Council, it seems untenable that all permanent members not be parties to the NPT. Moreover, expansion of the Security Council offers an opportunity to transform the accidental circumstance whereby only nuclear weapon states are permanent members. Elevating non-nuclear weapon states to this rank can send a positive signal globally that nuclear weapons are not necessary to achieve great international power, as reflected in the permanent ranks of the Security Council. Fortunately, leading candidates for new permanent seats are states that have abandoned or renounced nuclear weapon capabilities that they otherwise could have acquired: Germany, Japan, Brazil, and South Africa. The next US administration should devote much greater attention to the issue of Security Council reform, with a keen eye on the nonproliferation dynamics involved.

The Security Council question is singularly important vis-à-vis India. India badly wants a seat and can marshal arguments on its behalf. Others, mindful of India's reputation for dissent and sensitivity to perceived slights, are resistant. India's status outside the NPT makes its case for membership more difficult. Granting India a permanent seat as a tacit if not "legal" nuclear weapon state would cause major international upset and undermine the nonproliferation norm and regime. The Security Council question therefore becomes a possible fulcrum in India's own decisionmaking on nuclear policy. If Security Council reform becomes an active international issue, states should explore the possibility of a bargain whereby India would win a permanent seat in exchange for becoming a non-nuclear weapon state party to the treaty. (India's case for membership also would likely hinge on some resolution of the Kashmir dispute, as without such a resolution Pakistan would be expected to rally Muslim states and China to try to block Indian ascension.) The fairness of such an offer would be reinforced by the principle that all new members should be non-nuclear weapon states. If India chose nuclear weapons over a permanent seat, then the international community would be in a much stronger position to deflect India's protests over Security Council reform.

# RUSSIA AND NONPROLIFERATION IN THE NEW CENTURY

by Serguei Batsanov

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This paper addresses in broad terms a possible approach of the Russian Federation to the nonproliferation of WMD and their means of delivery. It offers a brief historical reference to Soviet nonproliferation policies, and addresses relevant changes both in international relations and in Russia since the collapse of the USSR. It attempts to identify Russia's national security interests and priorities with regard to nonproliferation, and suggests policy options stemming from those interests. This paper seeks to contribute to the development of Russian nonproliferation policies in the new global environment.

## SOVIET NONPROLIFERATION POLICIES

From the mid-1960s onward, the Soviet Union pursued a solid, consistent nonproliferation policy. At its root was the realization that as one of the two superpowers, far ahead of all except the United States in military might and most aspects of military technology, the USSR had a definite interest (from national security, power politics, and even ideological perspectives) in avoiding the spread of weapons technologies beyond their geographical limits. It was also very clear to the Soviet leadership that with the exception of some Latin American countries, most potential proliferation risks were close to Soviet borders. Two developments in particular contributed to this realization: acquisition of the nuclear bomb by China, and a long and difficult debate with NATO over West Germany's access to the nuclear button.

With this realization, the USSR became a staunch and active supporter of nonproliferation on a global basis. Given a rigid system of internal controls over military research, development, and production; comparatively higher standards of living for scientists, engineers, and other employees in the military-industrial complex; closed borders; and severe restrictions on

foreigners' access to the USSR and on Soviet citizens' travel abroad; there was little need for additional measures to prevent illegal transfers of Soviet technology or know-how to potential proliferants.

It is worth noting that on the international level, nonproliferation had been the area least susceptible to ups and downs in superpower relations. Even in the most confrontational periods of the Cold War, when practically all channels of communications were severed, cooperation between Moscow and Washington on nonproliferation remained active. Both parties consciously protected nonproliferation from their confrontations, and in fact, saw it as a stabilizing element during otherwise dangerous twists in their relationship.

## CHANGES IN INTERNATIONAL RELATIONS

The developments during the last decade of the 20th century produced change both in realities and perceptions of proliferation. With the end of a bipolar world and a related increase of instabilities/rivalries in a number of regions, proliferation risks have grown. This applies in particular to the arc from the Middle East to Japan. Two nations in that area, namely India and Pakistan, recently demonstrated acquisition of nuclear weapons and are working on their further development. Egypt, Israel, Iran, Iraq, North Korea, and Japan are considered (albeit for different reasons and to a different degree) as posing proliferation risks. The system of nonproliferation institutions created during the Cold War has undergone little change, however, and there are reasons to question whether it will continue to function well in the new macro-political environment.

Globalization, with dramatically increased flows of goods, technology, information, and people, has in principle reduced obstacles confronting a proliferant country. Moreover, better

access to know-how and technology has significantly compressed the time needed for WMD development. As a result, nonproliferation strategies based on technology denial are becoming less effective, and the risk of WMD proliferation to sub-state groups is increasing.

Also, in most cases, globalization processes make the application of sanctions both less attractive and less effective, as illustrated in the cases of India and Pakistan. Finally, from a political perspective, globalization carries risks of intensifying regional instabilities, thus contributing to the incentives for proliferation. While it may be too early to assess globalization in terms of its impact on social behavior, there are signs that it may carry significant risks of alienation, thus feeding the processes that can lead to the emergence of “pariah” states or regimes interested in WMD.

The United States, while still maintaining strong anti-proliferation views, seems to be gradually drifting away from traditional nonproliferation techniques. It apparently is moving toward heavier reliance on counterproliferation and protection of its own territory (be it against WMD or terrorism); displaying diminishing concern for the proliferation consequences of some of its actions (e.g., the war in Yugoslavia; deployment of NMD); and increasingly subjecting nonproliferation concerns to other policy considerations. Overall, concern about proliferation apparently has moved down several notches on the US scale of priorities.

## **CHANGES IN RUSSIA**

Nonproliferation became one of the “innocent” victims of Russian reforms. Dramatic deterioration of the economic situation; real and disguised privatization and “prihvatization;” disintegration of the old mechanism of central power and control over populations; severe under-funding of the military-industrial complex; and extended porous borders all contributed to Russia’s transformation from a bastion of nonproliferation into a weak link in the chain. Policy decisions resulting in voluntary withdrawal from the world’s weapons markets, together with ill-conceived conversion schemes, resulted in almost complete reversal of priorities for enterprises and ministries, for whom

survival became synonymous with the need to sell.

These dramatic changes could only lead to change in priorities for the government and the Russian political elite as a whole. While the Russian leadership did not hesitate in the 1990s to join the US statements supporting nonproliferation, and to promulgate a number of internal laws and decisions to tighten export controls and improve inter-agency coordination, it by-and-large neglected implementation of these policies.

The tradition of serious cooperation with the United States on nonproliferation often degenerated into debates over whether or not a particular Russian research center was engaged in dealings with countries perceived by the United States to be pursuing WMD programs, debates which did not contribute to furthering nonproliferation objectives world-wide. Russia was losing its importance to the United States as a nonproliferation partner, as illustrated by developments regarding North Korea. While the United States bears a significant degree of responsibility for all of these trends, the important point was that in Moscow’s real list of political priorities, nonproliferation also slid down steeply.

Moreover, Russia’s geo-strategic situation was undergoing serious changes as well. These changes included disappearance of the Warsaw Pact; NATO’s expansion to the east; a revolution in military technology; war over Kosovo; serious instability on Russia’s southern borders; and a sharp real decline of resources available for defense. All of these factors left Russia little choice but to put more emphasis in its military doctrine on nuclear deterrence, to intensify R&D to prevent devaluation of its nuclear deterrent vis-à-vis the United States, and to build highly mobile forces capable of integrated operations.

Consequently, Russian interest in promoting nonproliferation should have increased, and not diminished. Proliferation should become one of Russia’s major security concerns, because unlike for the United States, for Russia any proliferation means a significant increase in direct threat to its territory and devaluation of its nuclear superiority and its political clout.

## **RUSSIA'S NONPROLIFERATION PRIORITIES**

Putting Russia's "WMD house" in order (in the nonproliferation sense) is the first obvious priority. To achieve this Russia should conduct a thorough review and inventory of risks, mechanisms, laws, and resources. The following issues should be addressed in this context:

- Measures should be undertaken to increase both support to and centralized control over those segments of the Russian military-industrial complex, including R&D, which engage in activities that have potential relevance to proliferation. Support could include, for example, creating attractive conditions and special guarantees for Russian private investment, while control should cover both facility-level and central agency-level activities. While this could be seen as a step back in the reform process, it may be necessary. The goal should be to gradually prepare a significant number of facilities (companies) for market relations, while safeguarding intellectual resources accumulated in the military-industrial complex.
- The decisionmaking process on proliferation/nonproliferation issues should be reviewed to centralize it and to make it less dependent on straightforward commercial interests, which by definition cannot always be identical to national security interests. The logical focal point for the decisionmaking process appears to be the Security Council.
- Special attention should also be paid to reviving the "nonproliferation culture" in the Russian elite and involving new business leaders.

Furthermore, a more active and assertive nonproliferation foreign policy is also required for Russia:

- Since the proliferation of WMD is being widely used as an important argument in

favor of NMD in the United States, reducing proliferation risks around the world would reduce the validity of that argument.

- There is an obvious need to equalize Russian-US dialogue on nonproliferation. While it is important to eliminate the perception of Russia being a "weak link," the purpose of the dialogue should be broader, and include, to the extent possible, influencing the general US nonproliferation outlook and postures in specific regions.
- It is not desirable, from the Russian perspective, to have the United States as the only serious western partner to address nonproliferation, as it has been. Russia would have more room for maneuver if it succeeded in introducing nonproliferation into the G-8 agenda. Moreover, some G-8 partners may themselves need encouragement to take a more proactive nonproliferation stand. In addition, nonproliferation may and should become an important channel of Russian interaction with NATO, which should be properly institutionalized.
- Strong efforts should be made to set up serious and multifaceted nonproliferation cooperation with as many former Soviet republics as possible. This would not only help reduce proliferation risks, but also indirectly help promote other legitimate Russian security interests in the neighboring areas. Russia might consider establishing a CIS nonproliferation center.
- Finally, it would make sense for Russia, as an integral part of its efforts to regain at least some of the diplomatic status it lost during the last decade, to engage much more actively in regional problems and conflicts with nonproliferation implications. This would include, for example, addressing the continuous confrontation between India and Pakistan.

# RUSSIAN NONPROLIFERATION POLICY

by Vladimir Orlov

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## RUSSIA AND THE NPT REVIEW CONFERENCE

On May 20, 2000, the NPT Review Conference successfully adopted, by consensus, a Final Document that contained both a backward-looking review of how the treaty was operating, and a forward-looking perspective of what could and should be done to further strengthen the international nuclear nonproliferation regime and promote nuclear disarmament. Thus the conference was able to adopt a final document for the first time in 15 years.

The success of the conference became possible, in decisive measure, due to the well-coordinated position of the five declared nuclear weapon states (N-5), which acted jointly and compromised to finally reach a balanced document. The success of the conference—and, with it, of the whole international nonproliferation regime—would not have become a reality if the N-5 had failed to sign a joint statement prior to the Final Document. On the eve of the conference, one of the key issues for experts was the position of nuclear weapon states: would they unite and forget serious differences in US-Russian and US-Chinese relations, particularly those caused by the US intention to deploy the national missile defense system?

Several days before the conference, many experts argued that the ABM/NMD debate might make Russian governmental experts consider whether Russia should join the N-5 alliance, or take its own position, following China's example. China's special position on a number of issues—from ABM/NMD to FMCT—called into question the viability of such a coalition, and could have transformed the N-5 into the N-4. Moreover, many NPT parties would have found this position beneficial. It is evident that not only China but even a number of NATO states share concerns expressed in the Russian policy on missile defense matters.

Naturally, the temptation to uphold the moral high ground when attending the NPT Review Conference and thus to become estranged from the United States was nearly irresistible, but Russian diplomats wisely demonstrated self-control and defied this temptation. If they had refused to participate in concerted N-5 efforts, it would have been a tactical gain but a strategic loss, since the entire essence of the NPT would have been undermined. This, in turn, would eventually run counter to long-term Russian interests.

It is important that Moscow decided in the end not to undermine the regime. No less important, Beijing made a similar decision on the eve of the conference. As a result, the N-5 made a united front at the conference, which was a real surprise for some experts and delegations.

Russia attended the conference with several trump cards in hand, such as its ratification of START II and the CTBT (which will not mean the treaties' entry into force, although for different reasons). From the first day of the conference, Russia's position was flexible and active. Although the speech of the Russian minister was a clear statement of Russia's position on ABM/NMD and a demonstration of its firmness, Moscow took no diplomatic efforts to continue the offensive during the conference, since such an attack was not planned. During the conference, the N-5 preferred solidarity to public clashes.

The agreed statement of the N-5 delegations presented to the conference on May 1 made an important positive contribution. The statement, *inter alia*, welcomed ratification of the CTBT by the Russian Federation and declared that “none of our nuclear weapons are targeted at any state.” It also said:

ratification of START II by the Russian Federation is an important step in the efforts to reduce strategic offensive weapons and is welcome. Completion

of ratification of START II by the United States remains a priority. We look forward to the conclusion of START III as soon as possible while preserving and strengthening the Anti-Ballistic Missile Treaty as a cornerstone of strategic stability and as a basis for further reductions of strategic offensive weapons, in accordance with its provisions.

Russia's decision at the NPT Review Conference to promote the international nuclear nonproliferation regime, rather than its own views and feelings on NMD, was a wise one. It demonstrated, in practice, Russia's real commitment to nuclear nonproliferation.

## **RUSSIAN INTERESTS IN NONPROLIFERATION**

Russia has a core interest in preserving and strengthening the NPT and the nuclear nonproliferation regime. According to the Concept of National Security approved in January 2000, the need to strengthen nonproliferation of WMD and their delivery systems is "the primary task in the area of maintaining national security," while WMD proliferation is considered one of the major threats to national security and to Russia's interests.

As President Putin stated:

Russia demonstrates its firm commitment to strengthen export controls and the WMD nonproliferation regime. [...] Russia is committed to its obligations in the area of nuclear disarmament, intends to follow them in the conditions of strategic stability and within the framework of the disarmament agreements signed in the recent decades as a basis for further strategic offensive arms reduction and limitation.

This statement should be followed strictly, and introduced into practical, political, and diplomatic measures.

According to the all-Russian public opinion poll conducted in 2000 at the request of the PIR Center, Moscow, and in cooperation with the Center for Nonproliferation Studies, 78 percent of Russians (presumably, emotionally

and not as experts) support continued nuclear nonproliferation endeavors.

Even throughout the most terrible economic difficulties, Russia has never directly or indirectly violated Article I of the NPT, and has not transferred nuclear weapons or their components to other states. Russia also has complied with Article IV concerning assistance to non-nuclear weapon states by providing peaceful technologies. Its construction of the nuclear power plant at Bushehr, Iran should be considered in this context.

Like the United States, Russia also had proliferation temptations. But unlike the US temptations—the desire to play the role of the only superpower (sometimes without knowing when to stop and breaching international norms)—Russian temptation was weak and related to loss of great power status. To date, Russia has mainly managed to resist this temptation. Having in general a positive nonproliferation record, Russia, however, has faced serious problems, such as:

- inadequate physical protection, accounting and control of weapons-grade nuclear material ("first line of defense") and a weak customs service ("second line of defense"), which in some cases has led to loss, leakage, or smuggling of proliferation-sensitive material;
- inefficient export controls—as a result of which Russian proliferation-sensitive components, primarily missile components, were smuggled to Iraq and Iran;
- lack of a nonproliferation culture and of a new generation of personnel to reduce proliferation risks; and
- lack of coordination among different governmental agencies.

Export controls are still one of the most urgent problems on the agenda. According to a senior official of the Russian Foreign Intelligence (SVR):

The experience of world developed economies shows that essential for efficient functioning of an export control system is a high level of voluntary law-abidance of exporters. Russian exporters have another motivation—they are



more interested in getting maximum profit in the shortest possible period of time without due understanding of consequences that may result from illegal commercial activities. It's astonishing! What's more, if we don't solve this problem in the near future we'll have to deal with the most surprising violations. Very often they are deliberate, and delicate methods are used to conceal criminal activity.

## PRIORITIES AND POLICIES

The number one priority for the Russian president in the nonproliferation area should be establishing a state nonproliferation policy. Currently, there are many statements by numerous officials, but no *state policy* in this area. Minatom policy or Federal Security Bureau (FSB) policy is still just the policy of an agency. Russia badly needs such a state policy, otherwise, interested ministries and agencies will prevail over correctly declared goals. This state policy must put an end to attempts by certain ministries to pursue their own interests.

The next step should be establishing an appropriate inter-agency body or presidential authority (a Russian Arms Control and Nonproliferation Agency).

Some practical steps could be taken on unilateral (Russia), bilateral (Russia-United States), and multilateral levels to meet the principals and objectives of nonproliferation and arms control declared at the 1995 NPT Review and Extension Conference and developed in the Final Document adopted by consensus at the 2000 Review Conference.

### Proposed Unilateral Steps

- As a demonstration of its strong commitment to the spirit of the NPT, Russia should declare that no more proliferation-sensitive supplies will be sent to states that are not parties to the NPT or that are not in full compliance with the NPT, and that existing contracts with such states will be frozen.
- In its 2001 budget, Russia should invest more in improvement of the first and second lines of defense to prevent any leakage

of weapons-grade nuclear material. It should invest more in improving the security of storage areas, and of transportation of remaining nuclear warheads and chemical weapons.

- Russia should demonstrate more transparency in BW elimination and implementation of the BWC.
- Russia should establish a program of education and training to introduce nonproliferation culture to key facilities, enterprises, research institutes, and universities.

### Proposed Bilateral Steps

- Russia and the United States should finally resume a good Cold War tradition and establish a senior permanent bilateral group on nonproliferation, mainly to assess emerging proliferation threats in the world. Russia should be interested in maintaining a productive and continuous dialogue with the United States on key nonproliferation issues, which would replace the petty quarrels of recent years.
- As part of the arms control agenda, the parties should commence official START III talks as soon as possible, which can be concluded with a treaty signed by Presidents Vladimir Putin and Bill Clinton in 2000 (taking into account existing progress and agreements reached within the framework of bilateral consultations). START III will envisage the reduction of strategic offensive arms to 1,500 warheads for each state, with the subsequent elimination of nuclear warheads under a mutually acceptable transparency provision to prevent the possibility of re-use. START III should provide for the possibility of mounting MIRVs on existing (those that remain under START II) stationary or mobile missiles (but no more than three re-entry vehicles on each missile).
- The ABM Treaty should remain effective and preserve the current ban on deploying ABM systems for the defense of territory and providing a base for such a defense. At the same time, the parties may agree to designate two areas of limited missile defense deployment with the same number of in-

terceptor missiles, as provided in the original text of the treaty. Hence, amendments would deal with ABM deployment sites, which may be chosen by the parties but not necessarily in or near the capitals or in the intercontinental ballistic missile (ICBM) launcher's silo deployment sites, as provided for by the treaty. This could be achieved by making amendments to the ABM Treaty Protocol of 1974, which reduced the number of sites from two to one.

- Russia and the United States should sum up publicly the provisional results of their 1991-1992 unilateral initiatives on tactical nuclear weapons and make further unilateral statements confirming their prior commitments. They should also probably form some implementation schedule, which could be legally binding for the parties.
- Russia and the United States should intensify efforts to implement the 1996 Trilateral Initiative (United States-Russia-IAEA) to verify weapons-usable fissile material.
- The United States should significantly increase the amount of assistance to Russia within the Cooperative Threat Reduction (CTR) framework (US Department of Defense) and the Materials Protection, Control, and Accounting (MPC&A): Program (US Department of Energy). The programs should become more socially oriented. The United States should appropriate long-awaited substantial funding for CW dismantlement in Russia.

### **Proposed Multilateral Steps**

- All nuclear weapon states should make unilateral declarations on non-deployment of nuclear weapons outside their national territory, in accordance with the spirit of the NPT. US tactical nuclear weapons should be withdrawn from Europe and Turkey.
- It is necessary to remove obstacles for FMCT negotiations in Geneva. The nuclear weapon states should take a flexible position on setting up a corresponding committee at the conference, if non-nuclear weapon states insist on parallel establishment of other subsidiary bodies, e.g., on

nuclear disarmament issues. It would be reasonable to take into account the position of China and some other states on creating a subsidiary body on preventing an arms race in outer space (PAROS).

Obviously, implementation of the aforementioned measures does not depend on Russia alone, and some of these steps do not depend on Russia at all. However, at this time it is important that Russia put forward a complex nonproliferation initiative. The favorable situation, starting to emerge in the State Duma after its smooth ratification of START II and the CTBT, would make this initiative even more convincing.

# A NONPROLIFERATION AGENDA FOR THE PUTIN ADMINISTRATION

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The Russian Federation is located in the dynamic and uncertain geopolitical environment of the huge Eurasian landmass. As a result of a decade of profound reforms, the national economy has become much more open to the outside world; its recovery depends significantly on access to foreign markets, investments, and technologies. Furthermore, due to its huge territory and lengthy, insufficiently protected borders, domestic progress in the Russian Federation cannot be achieved by pursuing any version of a “fortress Russia” strategy. Therefore, protection of carefully determined vital and important national security interests in regions directly attached to Russian territory is a crucial challenge for the country’s sustainable development. Undoubtedly, Russia possesses legitimate security interests in Europe, Asia-Pacific, Central Asia, the South Caucasus, and the Middle East. Developments in some of those super-regions are determined considerably by the situation in South Asia. Although there is no consensus in Moscow on the desirability of further US presence in the Old World, this presence significantly influences stability along the 60,000-kilometer Russian periphery, and thus represents a vital factor in the national security environment.

## SOURCES OF PROLIFERATION CONCERNS

Russia faces a clear and present danger posed by international terrorism. This terrorism is mainly rooted in Islamic fundamentalist and radical pan-Turkic forces spread widely along the country’s vulnerable southern belly. For several years, these forces have undertaken energetic subversive activities inside Russia, especially among its autonomous Moslem regions. There is mounting evidence of support for those activities by the Taleban-controlled part of Afghanistan, as well as by other entities located in the Middle East and Asia Minor.

Geographically, this source of terrorist threat to Russia coincides with the area that for many years has been one of the most important sources of international WMD proliferation concern. The Taleban—the principal supporter of Islamic terrorism in the Caucasus and Central Asia—is openly supported by neighboring Pakistan, a Moslem power possessing nuclear and missile technologies. That country faces multiple and complicated challenges coming from both its interior and exterior. These jeopardize the future integrity of Pakistan, and consequently the ability of national authorities to maintain centralized control over Islamabad’s nuclear and missile assets. As a result, dangerous hardware could fall into the hands of radical groups and regimes and then might be used directly against Russia.

In another scenario, the Pakistani regime might be overthrown by Islamic fundamentalists. Such a “Talebanization” of Pakistan could transform that country into a promoter of radicalism and fundamentalism northward. Such a crusade would be supported by Islamabad’s nuclear capabilities, and thus Russia’s security guarantees to its allies in Central Asia could be undermined. It would also further restrict Moscow’s field of maneuver in dealing with separatism inside the Russian Federation itself.

Many Russian analysts perceive that the nation’s nuclear might helps it occupy a higher international profile than it would otherwise, given the modest role it plays in the world economy and finances. However, nuclear arsenals can be translated into diplomatic language, and thus bring practical benefits, only through a network of international WMD control and nonproliferation regimes. *In fact, it is not its huge nuclear capabilities per se, but Moscow’s prominent role in international nonproliferation efforts that provides Russia with grounds to apply for prominent global leverage.* Therefore, an active nonproliferation policy by the Kremlin not only would help it to achieve immediate gains in the nuclear area, but

also would greatly enhance Russia's overall foreign and security policy. With a well-defined and coordinated strategy, Moscow could capitalize on its vital global nonproliferation role to achieve results in other important military, political, and economic spheres.

## **DOMESTIC AGENDA**

There are three initial steps needed for elaborating and pursuing a sound nonproliferation policy that would best serve the country's interests.

First, in compliance with the Putin administration's course aimed at building a stronger state, an effective decisionmaking mechanism in the nonproliferation area should be established. Recently, national nonproliferation policy has been affected by the activities of many state, semi-state, and non-state actors, which often have different priorities and as a result influence Russian policy toward various azimuths. There is an urgent requirement to establish a strong body to coordinate all those activities in order to elaborate a "golden mean" policy and then monitor its strict implementation. Among existing bodies, the national Security Council seems best suited for executing this mission.

Second, the status of nonproliferation in the list of national top priorities should be increased. Nonproliferation is an essential component in a strategy aimed at securing Russia's access to high technologies and their markets. Without Russia's participation in and compliance with international nonproliferation-related export control regimes, Moscow could hardly expect to increase, for instance, its share in international air and space cooperation. Therefore, nonproliferation represents not only an important foreign and security policy interest, but in broader terms it determines the survival of high-tech sectors of the Russian economy. Therefore, compliance with nonproliferation regimes and norms is a question of Russia's survival as a developed nation.

Third, Russia's standing as a cornerstone of the international nonproliferation regime is undermined by leakage of sensitive technologies from the country. This leakage not only erodes Moscow's international prestige, but has become a serious disagreement de-coupling Russia

from its Western partners and complicating its participation in global high-tech commercial exchanges. It also is not inconceivable that leaked technologies could be utilized by entities challenging Russia from the south. The following measures could improve the situation:

- The existing export control system should be reformed to make it effective, simple, well-known, inexpensive, and non-corrupt. This would deprive enterprises of the motivation to escape the export control system because it is prohibitively over-bureaucratic, expensive, time-consuming, and confusing as the rules of the game change too often.
- The priority of economic integration with other NIS should be achieved without jeopardizing export control. Removing customs and border control checkpoints along intra-CIS borders must be accompanied by imposing stricter control along external borders, especially along borders with other NIS remaining outside the integration zone.
- Improving law enforcement mechanisms would eliminate the problem that has been posed when some dangerous illegal exports are punished by relatively minor fines.

In their activities aimed at defining and implementing sound nonproliferation policy, top Russian federal authorities should be interested in relying in part on advice from mass media, research, and other non-governmental organizations (NGOs). Independent advice from the broadest possible section of Russian society will help elaborate a more balanced policy, free from domination by narrow and sometimes egoistic bureaucratic interests.

Development and state support of nonproliferation education will widen and increase the level of expertise in Russia in the nonproliferation area. In the short-term, expanding nonproliferation education will make the Russian expert community more aware of proliferation challenges. Especially important is training exporters in order to inform them of existing export control regulations and procedures. In the medium-term, the new breed of nonproliferation experts would be instrumental in improv-

ing the quality of national decisionmaking in this important field.

## **INTERNATIONAL AGENDA**

Given the unique role of nonproliferation regimes for the country, the Russian Federation is vitally interested in their consolidation. Besides status-related and diplomatic benefits, the regimes help strengthen the international legal system—i.e., they establish and modify rules of behavior of states in the international arena. Moscow, as an important player, might reasonably hope to shape the regime in accordance with its visions and priorities.

The Russian Federation could play an important role and would benefit by actively participating in various measures aimed at maintaining, consolidating, and further expanding global nonproliferation regimes. Among such measures the following might be suggested:

- Moscow should facilitate entry into force of the CTBT. As an important first step, Russia, together with Western Europe, Japan, and probably the New Agenda Coalition, (NAC) could launch an international campaign aimed at facilitating adherence to the CTBT by the remaining five nuclear powers—the United States, China, India, Pakistan, and Israel. This initiative might include joint sponsorship of a relevant resolution by the UN Security Council and UN General Assembly. Such broad international pressure could promote progress toward the treaty entering into force. The CTBT is especially important because it could open the door toward partial formalization of the nuclear status of India and Pakistan, and impose technical restrictions on their future nuclear build-ups.
- Russia should encourage expanded membership in the NPT and IAEA safeguards system. Moscow could use its historical ties with Cuba to persuade it to join the NPT and accept IAEA safeguards under the 93+2 program. In particular, the proposed construction of the Juragua nuclear power plant could be linked to an adequate nuclear materials safeguards regime, and perhaps to Cuban acceptance of 93+2 requirements. A similar strategy could be used toward Iran; Tehran's accession to 93+2 should be a condition for building new reactors in Bushehr.
- Russia must make every effort aimed at guaranteeing future reductions in US and Russian nuclear forces via a continued bilateral strategic arms control process. In case the process collapses as a result of US NMD deployment violating the ABM Treaty, Moscow could pledge that it would continue its strategic nuclear disarmament unilaterally.
- Capitalizing on the unsuccessful June 7, 2000 US NMD test, Russia could propose to the United States a return to the 1997 Helsinki package. Should Washington agree to postpone its NMD decision for a reasonable period of time, Moscow could accept initiating formal arms control talks on tactical nuclear weapons in parallel with START III negotiations. At a minimum, such a proposal would be met in Europe more positively than the recent idea of joint theater missile defense (TMD).
- Moscow and Washington could start formal trilateral or coordinated consultations with China aimed at convincing Beijing to avoid large-scale missile build-up in response to US NMD and TMD deployments. As one incentive, Russia and the United States might offer China their continued compliance with the INF Treaty.
- Russia and the United States could work to expand MTCR membership, formalize the regime, and establish an international organization monitoring MTCR compliance. With the ballistic missile tests of India, Pakistan, Iran, and North Korea in 1998, a whole cluster of states with missile capabilities emerged outside the MTCR. These new possessors of missile technologies have no obligations preventing them from further proliferating their know-how and hardware. Therefore, their adherence to the MTCR—as well as the adherence of other missile powers, including China and Israel—requires urgent international efforts. Expanding the MTCR must be accompanied by radical enforcement of the regime.

The informal status of the MTCR complicates the shaping of national export control regulations in accordance with MTCR guidelines, and helps maintain loopholes in national export control regimes. Furthermore, the absence of an international organization responsible for monitoring compliance with the regime creates disagreements between member states on the status of possible violations. This facilitates violators' claims that complaints made by other concerned states parties are groundless or based on false information motivated by political or commercial reasons.

- Based on his successful visit to North Korea, President Putin could continue trying to convince the leaders in Pyongyang to freeze their long-range missile programs and resume the country's full compliance with the NPT. Although the North Koreans might face problems in transforming their words into deeds, friendly advice from Moscow might change the balance of motivations inside the North Korean leadership.
- Russia should try to resolve its recent disagreements with the United States on Iran and Iraq by proposing a mutually acceptable and beneficial framework for a deal. In particular, Russian conventional arms and peaceful nuclear cooperation with Iran could be halted or significantly diminished in exchange for the opening of US and Western European markets to Russian weaponry and nuclear industry products. Furthermore, Moscow's political interest in relations with Tehran would decrease if the United States shifted emphasis in its Caspian basin policy toward a more cooperative strategy in respect to Russian interests. Similarly, US political concessions in the post-Soviet regions might be sufficient motivation for Russia to act more cooperatively with Washington in Iraq.
- Russia, the United States, and China should cooperate in offering to improve the safety of nuclear weapons and materials in India and Pakistan. Both former Cold War opponents might also share with New Delhi and Islamabad their know-how in the area of negative nuclear command-and-control,

as well as their historic experience in crisis management during conflicts.

# THE DANGEROUS TEMPTATION OF UNILATERALISM

by Nikolai Sokov

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## UNILATERALIST TENDENCIES IN THE UNITED STATES AND RUSSIA

Unilateralism is a new fashion in nuclear arms control launched by proponents of large-scale missile defense in the United States. The Clinton administration, which still advocates obtaining agreement from Russia to amend the 1972 ABM Treaty to allow deployment of a limited defense, seems to be losing against this trend. Increasingly, it appears that the balance is tilting toward unilateral withdrawal from the ABM Treaty if Russia continues to object to its amendment.

The Republican presidential candidate, George W. Bush, gave unilateralism a big boost. Following in the steps of his father, he promised to reduce US strategic nuclear weapons unilaterally without waiting for a START III treaty with Russia, much like George Bush, Sr. initiated unilateral reductions of US and Soviet tactical nuclear weapons in 1991. His proposal might defeat the central argument of opponents to NMD in the United States and Europe, namely, that national missile defense would doom nuclear arms control with Russia.

Even more surprising, Russia, which certainly does not have resources comparable to those of the United States, is increasingly leaning toward revising and even withdrawing from existing arms control agreements, despite the fact the Duma in early 2000 ratified START II and the CTBT. The National Security Concept adopted last January openly listed this as an important goal of the new government. The military has been particularly active in promoting the idea that Russia should withdraw from arms control agreements if the United States withdraws from the ABM Treaty. The chief of the Strategic Rocket Forces, Vladimir Yakovlev, recently declared that not only agreements directly related to the ABM Treaty—such as START I, START II, and the INF—would be

abrogated, but also the CTBT and even the NPT might be affected.

The rationale for these similar trends is fundamentally the same for both countries. The United States, proceeding from a position of unparalleled power, and Russia, which is only emerging from a protracted economic crisis (and the recovery is not yet sufficiently firm), have lost interest in legal obligations enshrined in past treaties.

The United States has a desire (whether justified or not) and an opportunity to deploy a missile defense, which runs counter to the ABM Treaty. Since Russia no longer represents a threat like the Soviet Union (whether because it is weak or because it is moving toward a market economy and democracy), there seems to be little reason to forego plans just because of a document signed almost 30 years ago with the Soviet Union.

Russia perceives at least some threat from the United States and NATO, as well as the emerging threat from the “South:” a broadly defined category that includes Pakistan, Turkey, Afghanistan, and potentially some other countries. Under these circumstances, it sees fit to increase reliance on nuclear weapons, at least vis-à-vis NATO. Also, arms control agreements of the past prevent cost-effective reorganization and modernization of the relatively small nuclear force Russia can afford. For example, Russia wants to MIRV its new ICBMs (prohibited by START II), put up to 10 warheads on its new submarine-launched ballistic missile (SLBM), and possibly deploy a number of land- and sea-based tactical nuclear warheads (contradicting the 1991 unilateral statement by Mikhail Gorbachev). Moreover, the military has been discussing with increasing openness the deployment of intermediate-range missiles, currently banned by the INF Treaty. In addition, a large number of conversion, elimination, and verification provisions of START I, as well as

limitations on operations and modernization of nuclear weapons, have become too awkward and expensive.

In part, the unilateralist tendencies in American national security policy are simply imitated by Russia because, of course, it takes “two to tango:” if one side is withdrawing from a treaty, the other does not have a choice but to follow suit. A much more troubling development is that many in Russia, including but not limited to the military, actually welcome these developments. Many even secretly welcome US withdrawal from the ABM Treaty because someone has to show the way. Russia today is clearly not in a position to revise treaties. But some argue that if the United States does it first, Russia could follow suit. Thus, fascination with unilateralism is not a purely American phenomenon; influential parts of the Russian political-military establishment willingly play along.

#### **THE RISKS OF UNILATERALISM**

The new fashion seems ill-advised, however, for a number of reasons.

First, the 2000 NPT Review Conference demonstrated that, US NMD notwithstanding, Russia is clearly not immune to criticism from non-nuclear weapon states. Its actions are viewed by the majority of relevant (i.e., active) non-nuclear weapon states, especially those in the newly influential NAC, as contradicting its Article VI obligations. Thus, US withdrawal from the ABM Treaty cannot provide political “cover” for subsequent similar actions by Russia.

Second, the increasingly popular idea that lower transparency might increase the deterrent value of Russian nuclear forces is thoroughly misguided. Instead, it will reduce predictability and encourage planning based on worst-case scenarios in the United States, Western Europe, China, and a number of other countries of concern to Russia.

Third, if US and Russian reductions are based on unilateral statements, such as those of 1991 regarding tactical nuclear weapons, this will only exacerbate the problem of the “return capability” of the United States, i.e., its ability to quickly build up its arsenal by returning warheads to delivery vehicles and/or substituting

conventional warheads for nuclear ones. This has been one of the major concerns about START II, and, in the absence of negotiated agreements, it can only get worse.

Fourth, current planning seems to disregard possible responses. For example, resurrection of intermediate-range SS-20 (*Pioneer*) missiles is likely to rekindle concerns of European states, and encourage retention and even expansion of the US non-strategic nuclear force in Europe, as well as further expansion of NATO.

Fifth, it is widely recognized in Russia that the scale of Chinese nuclear modernization will depend on the US NMD program; although it is assumed that this modernization will be directed at the United States, the security of Russia will be affected. Consequently, Russian interests can be served better by trying to prevent the demise of arms control agreements, including the ABM Treaty, than by playing along with unilateralist US policies.

Careful reading of Russian sources makes it abundantly clear that unilateralist impulses result from an attempt to optimize the reduction of Russia’s nuclear arsenal. It seems much more likely, however, that if unilateralism obtains, reductions will become next to impossible or, if Russia has to continue reductions (for example, for economic reasons), then imbalances will continue to increase.

Worse still, in light of the growing challenges to the NPT, the whole nuclear nonproliferation regime might collapse. This will certainly worsen the position of the United States, but the Russian position in the world will not improve either. As during the Cold War, nuclear nonproliferation is not a zero-sum game; the same superpowers that opposed each other on almost every other issue unfailingly cooperated on this one. Thus, no matter how misguided US fascination with unilateralism might be, Russian interests can hardly be served by encouraging these impulses. Instead, Russia can only gain by concentrating its efforts on preventing the breakdown of arms control regimes.

#### **POLICY OPTIONS**

The recent initiatives announced by President Vladimir Putin were encouraging, espe-



cially his proposals to create a joint US-European-Russian defense system to address possible future missile threats, and the agreement regarding a joint data exchange center. More can be done along the same lines. For example:

- First, the new National Security Concept leaves a distinct impression that reliance on nuclear weapons as a key security guarantee is temporary. This point can and should be made public. The resistance to disarmament measures that the Russian delegation mounted in the closing days of the 2000 NPT Review Conference was highly counterproductive. Instead, the Russian government should clearly announce that it views reliance on nuclear weapons as a short-term fix to its security problems and that even that fix is not a foregone conclusion, namely, that Russia will strive to ensure its security through cooperative arrangements. Instead, Russia should actively participate in multilateral discussions in the UN General Assembly and Conference on Disarmament to promote both the stability of existing arms control regimes and of new disarmament measures.
- Second, any US NMD program will require much time and considerable money; it is not even clear whether it is at all technologically feasible. Bearing this in mind, Russia can afford to refrain from immediate reaction to any US announcements and statements with regards to NMD-related activities. For example, it is not completely clear whether, in legal terms, the early phase of construction in Alaska will represent a violation of the ABM Treaty. The Russian response can be postponed by at least a year and probably two; if the deadline for the US program is extended (as now seems likely because more tests might be needed), the response can be postponed even longer. In particular, Russia can delay withdrawal from any formal or informal agreements.
- Third, START III apparently remains a high priority for the Russian government, but its fate is now questionable. It is possible that the next US administration, whether Democratic or Republican, will promote the increasingly popular idea of unilateral reductions. This method can certainly be beneficial for Russia because it will allow optimization of its nuclear arsenal at lower levels. At the same time, Russia can benefit from early codification of such parallel unilateral reductions in a new treaty and should work toward that goal.
- Fourth, irrespective of the new theories of “expanded deterrence” and “de-escalation,” Russia’s security can only be enhanced as a result of greater predictability with respect to sub-strategic nuclear weapons, especially if such predictability extends to China (whose sub-strategic capability roughly equals that of Russia). Ultimately, Russia’s interests would be served by a formal treaty on theater nuclear weapons that includes appropriate data exchange and verification mechanisms. If absolutely necessary (probably for domestic political reasons, because the military utility of such weapons is low if not nil), it might even be possible to consider certain limited adjustments in the scope of the 1991 informal regime, but a formal regime is highly advisable.
- Fifth, implementation of the nuclear non-proliferation regime should be considerably strengthened. Export of nuclear materials and technologies (even if only peaceful) might be economically attractive. Abetting India’s nuclearization might seem expedient in the context of building a multipolar world. But any gains will certainly be short-lived. The proliferation of nuclear weapons will reduce Russia’s status in the world and weaken its security.

Of course, Russia cannot do everything alone: it cannot preserve arms control agreements if other countries want to withdraw from them, nor does it carry sole responsibility for the strength of the NPT. But, as they say, every little bit helps; everyone has to do their share. The very least Russian can do—and this is certainly within the realm of the possible—is to stop playing along with those in the United States who favor unilateralism.

All in all, Russia’s interests can best be served by resisting the temptation of unilateral-

ism in arms control and disarmament, no matter how attractive recent US thinking on this matter might seem. The 2000 NPT Review Conference should serve as an alarm signal: it demonstrated that unilateralism is dangerous and counterproductive for all nuclear weapons states, and that the nonproliferation regime is actually less stable than many assumed. The success of the conference should not be taken for granted: Article VI obligations are an increasingly important condition for maintenance of the NPT. It cannot be sustained if two nuclear powers are seen as revising Article VI; the NPT will not be able to survive such stress.

# NUCLEAR SAFETY AND SECURITY IN SOUTH ASIA

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## THE NATURE OF THE NUCLEAR PROBLEM IN SOUTH ASIA

Many observers hoped that the May 1998 nuclear tests in India and Pakistan would engender great caution in Islamabad and New Delhi concerning the continuing conflict over Kashmir. That hope was dashed in the spring of 1999, when Pakistani troops and mujahideen crossed the line of control into Indian-held territory near Kargil. The Indian military attacked those forces in their mountain fortifications and prepared for counter-attacks into Pakistani-held territory, while leaders in Islamabad issued threats of possible nuclear weapons retaliation. Over 1,000 Indian and Pakistani soldiers died in the fighting around Kargil, and the risk of escalation to nuclear war in South Asia appeared to be higher than at any time in the past.

The October 1999 military coup in Pakistan further exacerbated tensions between the two new nuclear powers and removed even the vestiges of civilian checks and balances on military decisionmaking in Islamabad. Leaders in New Delhi have declared publicly that they believe Pakistan is now a “terrorist state” under the influence of Islamic fundamentalist forces, and now privately discuss their fears that Pakistan may collapse into chaos and civil conflict. Leaders in Islamabad insist that the “freedom struggle” in Kashmir is far from over, and suggest that there may be future Kargil-like operations. In short, the introduction of nuclear weapons into South Asia has not led to stability; instead, it has aggravated long-standing tensions and has turned a regional problem into an urgent concern for the international community.

Two different, but related, dangers have been created by the introduction of nuclear weapons into South Asia. The first great danger is the risk of nuclear war arising through deliberate escalation of a conventional war started over Kashmir. A future decision by Pakistan to engage in conventional military operations in

Kashmir could lead to an Indian decision to send forces across the line of control or the international border, which could spark a Pakistani limited use of nuclear weapons to prevent defeat. In 1999, the Pakistani military apparently planned the Kargil operation in the belief—following the logic of what has been called the “stability/instability paradox”—that a “stable nuclear balance” between India and Pakistan permitted more offensive actions to take place with impunity in Kashmir. This belief appears to have been more strongly held by senior military officers than by civilian leaders. For example, at the height of the fighting in Kargil, Pakistani Army leaders insisted that “there is no chance of the Kargil conflict leading to a full-fledged war between the two sides.” Although Prime Minister Nawaz Sharif approved of the plan to move forces across the line of control, it is not clear that he was fully briefed on the nature, scope, or potential consequences of the operation. Certainly, his statement in July that he recommended the pull-out of the “insurgents” in Kargil due to “his fear that India was getting ready to launch a full-scale military operation against Pakistan” provides a clear contrast to the confident military officers’ assessments that no risks of escalation existed. The current Pakistani government’s interpretation of the Kargil crisis, at least in public, is that Nawaz Sharif lost courage and backed down unnecessarily. The New Delhi government’s interpretation is that restraints in the fighting in Kargil, coupled with threats of further escalation if necessary, forced Pakistan to retreat. These different “lessons learned” could produce ominous outcomes in future crises.

The second danger is the risk of an accidental nuclear war, caused by a nuclear weapons accident, the unauthorized use of a nuclear weapon, or a false warning of an attack. The false warning incident that occurred just prior to the Pakistani nuclear tests in May 1998 is a dramatic example of the kind of danger that is likely in South Asia in the future. Prior to

likely in South Asia in the future. Prior to Prime Minister Sharif's decision to test nuclear weapons, Inter Service Intelligence (ISI) officers told him that the Indian and Israeli air forces were about to launch a preventive strike on the test site. The small Pakistani missile arsenal was allegedly then placed on a high state of alert because of this report. It is not clear whether this warning of an imminent Indian-Israeli attack in 1998 was genuinely believed by ISI officers or whether it was deliberately concocted (or exaggerated) in an effort to force the prime minister to test. Either way, the incident serves as a warning that the risk of accidental war—caused by false warnings or other problems—is likely to be a continual and serious problem in South Asia. Inadequate warning systems are in place in the region, time-lines for decisionmaking are highly compressed, command and control arrangements are not clear, and communications links are not robust.

Moreover, these two nuclear risks—deliberate escalation and accidental war—are related in complicated ways. Leaders that are planning a limited use of nuclear weapons during a conventional conflict, or fear that their adversary might soon use such weapons, are more likely to treat false warnings as real. They are more likely to alert nuclear forces, making the arsenal more ready for deliberate use, but also more susceptible to accidental or unauthorized use. Finally, leaders fearing a nuclear first strike, or a large-scale nuclear retaliation to their limited use, are more likely to delegate authority for nuclear response to lower ranking military officers. This would presumably reduce the risk of a “decapitation attack,” but also raise the risk of unauthorized uses of nuclear weapons.

## **RESPONDING TO THE CHALLENGE**

Serious risks of nuclear war will remain present in South Asia as long as there is no mutually acceptable, political solution found to the Kashmir problem. This persistent risk will only be compounded, however, by dangers of false warnings, unauthorized attacks, or weapons accidents. Unfortunately, little is being done to address this later set of dangers. Indian and Pakistani leaders are clearly aware of these problems, but appear to minimize them. The August 1999 “Draft Report of National Security

Advisory Board on Indian Nuclear Doctrine,” for example, claimed that “nuclear weapons shall be tightly controlled,” that command systems “shall be organized for very high survivability against surprise attacks,” and that “safety is an absolute requirement.” But it did not explain at all how such lofty goals would be met. For their part, senior Pakistani authorities like A.Q. Khan, have claimed that “Pakistan has a flawless command and control system” for nuclear arms, suggesting that nothing more needs to be done. The US government, in turn, has refused to assist the Indians and Pakistanis in developing improved safety and security for their nuclear weapons. Washington officials argue that any assistance in this area would reward Islamabad and New Delhi for testing, and signal other potential nuclear weapons states that the United States is not serious about its nonproliferation goals.

These arguments against US assistance for efforts to improve Indian and Pakistani nuclear safety and security are misguided. I say this for four reasons:

- First, the governments in Islamabad and New Delhi are not going to renounce their nuclear capabilities. A more reasonable goal would be to prevent full “weaponization” of the arsenal, by which I mean the mating of warheads to bomber and missile delivery vehicles and deployment of these vehicles to operational military bases. This is a goal of US diplomacy, but it is unlikely to be achieved unless the United States can help the Indians and Pakistanis develop some way of verifying that the other state's arsenal is in a similar non-ready state of alert. The Sandia National Laboratory's technical work on cooperative monitoring systems, for example, could be of great assistance in permitting Indian and Pakistani officials to know that neither side has mated its nuclear weapons to delivery vehicles, yet without revealing precisely where those nuclear weapons are located.
- Second, whether or not India and Pakistan deploy nuclear arsenals into the field, it is in the interests of all parties that both sides minimize the risk of theft and maximize the personal reliability of nuclear weapons guards and civilians and military officers

involved in command and control operations. US assistance in designing personnel reliability programs, which reportedly do not exist in either India or Pakistan, would be useful in this regard. Sharing information about “best organizational practices”—such as “red teams,” independent review groups, and special training programs—could also be helpful.

- Third, the argument that US assistance in this area might signal other potential nuclear states that the United States will accept further proliferation is not entirely without merit, but it does exaggerate the importance of such a factor in states’ proliferation decisions. Scholars may disagree on how much weight to place on such factors as security threats, domestic politics, and desire for prestige in historical case studies of states’ decisions to develop nuclear weapons. But I know of no evidence that suggests that these, or other governments, considered potential US assistance in nuclear safety, or lack thereof, to be an important influence on their decisions.
- Fourth, the issue is usually framed as the too-simple question, “should the US share PAL (permissive action link) technology?” This ignores the whole range of less sensitive technologies and design *principles* that reduce the risks of nuclear weapons accidents. These include insensitive high explosives, environmental sensing devices, mechanical safe and arming devices, and the use of unique signals. While the sharing of PAL technology *might* encourage deployment of nuclear weapons into the field, by reducing concerns about unauthorized use, the development of these other technologies would be just as useful for weapons kept in storage as they would for those kept on a high state of deployed alert.

The challenge for American policymakers is not how to “teach” South Asians how to maintain completely stable deterrence or to operate nuclear forces with perfect safety. It should be acknowledged from the start that American policymakers do not know how to create perfect systems out of inherently imperfect parts: the United States experienced many dangerous “near-accidents” with nuclear weapons and

command systems during the Cold War, and has not completely eliminated these risks today. Instead, the real challenge is how best to encourage the leaders of Pakistan and India, as long as they have nuclear weapons, to develop a safer and more sophisticated form of nuclear deterrence than the one that existed during the Cold War. A window of opportunity now exists to influence policymakers in South Asia, because both governments are still in the process of making decisions on the size and shape of their future nuclear capabilities and command and control systems.

Will India and Pakistan be able to maintain small arsenals kept off hair-trigger alert? Or will they, like the superpowers in the Cold War, feel compelled by their adversaries’ actions (and by domestic political incentives) to develop more dangerous nuclear arsenals and command systems, all in the name of deterrence? The answer is by no means clear. What is clear is that there is a growing need for Indian and Pakistani analysts to discuss these issues in a constructive manner. The central problem is not only that many leaders in both New Delhi and Islamabad may be underestimating the dangers of nuclear weapons accidents and inadvertent escalation. The difficulty we face is also that the solutions to these problems are elusive and cannot be developed and implemented without much intellectual work and cooperation between both governments and independent analysts. Track-two efforts by NGOs can play a particularly useful role now, paving the way for some form of more official discussions on a “strategic constraint regime” as envisioned in the Lahore Declaration, at a future date.

# CHINA'S STRATEGIC FORCE MODERNIZATION: ISSUES AND IMPLICATIONS FOR THE UNITED STATES

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## CHINA'S STRATEGIC FORCES

China's initial quest for a nuclear capability was motivated by recognition of the political value of nuclear weapons and determination to remove China's vulnerability to nuclear blackmail. Following its first nuclear test in 1964, Beijing announced that it would adhere to a policy of no-first-use (NFU) of nuclear weapons and called for worldwide nuclear disarmament. Alone among the nuclear weapon states of the NPT, China adopted a minimal deterrent strategy relying on a small number of nuclear weapons to deliver punitive, counter-value responses to an adversary's first strike. China's nuclear forces currently consist of more than 400 warheads, including roughly 260 "strategic" warheads and 150 "tactical" warheads. China's strategic arsenal is deployed on a triad of about 130 land-based missiles, 120 strategic bombers, and one ballistic missile submarine equipped with 12 SLBMs. China's land-based Dong Feng-series (DF) strategic missiles range from the 1,800-km DF-21A to the 13,000-km+ DF-5A ICBM. China currently has 18 to 26 DF-5A missiles capable of striking targets in the continental United States. Its tactical nuclear weapons include artillery shells, atomic demolition munitions, and short-range missiles.

Although China has been satisfied with a relatively small nuclear force, the credibility of its nuclear deterrent has always been questionable. China's H-6/B-6 strategic bombers are obsolete aircraft with limited range and little ability to penetrate modern air defenses. The single *Xia* class ballistic missile submarine has been plagued with technical problems and may no longer be operational. The linchpins of China's strategic deterrent against the United States are the DF-5A and DF-4 missiles, which are liquid-fueled and based in silos. Because these missiles are not mobile and require long preparation times before launch, they are potentially vulnerable to a preemptive first

potentially vulnerable to a preemptive first strike. The missiles are normally not mated with their warheads, further reducing readiness. China's strategic forces have a variety of other weaknesses, including deficiencies in early warning systems, limited C<sup>3</sup>I, poor mobility and dispersal capabilities, and vulnerability to future anti-missile defenses.

The principal driving force behind China's strategic modernization has been the desire to address these weaknesses and build a credible minimal deterrent. Absent widespread deployment of missile defenses, China's current strategic modernization program will produce a credible, survivable nuclear deterrent force by 2010-2015. The technical improvements necessary to achieve this goal will provide China's future leaders with new strategic options. Technical limitations currently preclude the adoption of a more elaborate nuclear doctrine (such as a launch-on-warning posture or a limited deterrent that includes nuclear war-fighting capabilities). The current strategic modernization program will eventually put China in position to pursue a major expansion in its nuclear force structure or a shift in nuclear doctrine toward limited deterrence. Neither choice is inevitable, but both options will become realistic goals.

## THREE SCENARIOS FOR STRATEGIC MODERNIZATION

Three broad scenarios for Chinese nuclear modernization seem likely. The first involves steady improvement of existing forces at a measured pace, focusing on improving survivability of nuclear forces via greater mobility, shortened launch preparation time, improvements in command and control, and protection or concealment of hardened silos. This mode of modernization has been underway for two decades and will continue regardless of the external environment. A second scenario would respond

to US missile defenses by increasing force levels to maintain minimum deterrence. This would include a significant increase in Chinese missiles able to reach US targets and development of multiple warheads and penetration aids to overcome US missile defenses. A third scenario would be driven by doctrinal change away from minimum deterrence. This might include a shift to a limited deterrence strategy or a launch-on-warning posture. The first table on p. 46 below summarizes China's likely force structure and capabilities under each scenario.

### **Scenario One: Credible, Minimum Deterrent**

China's current modernization efforts are intended to enhance the survivability and effectiveness of its strategic nuclear forces (thereby increasing the credibility of China's minimum deterrent). These efforts are focused on the areas of propellant technology, mobility, guidance and accuracy, yield-to-payload ratio, and launch preparation time. China's strategic missile modernization is essentially following the same technological trajectory as the American and Soviet missile forces, albeit at a slower pace and in lesser numbers. As explained below, credible minimum deterrent would also involve a quantitative expansion to about 50 ICBMs.

The current modernization program will replace liquid-fueled missiles based in caves and silos with solid-fueled, road-mobile missiles, resulting in significant increases in survivability, accuracy, and reduced launch preparation time (from two to three hours to five to ten minutes). Newer generation 8,000-km DF-31 missiles will enter service in 2000-2001, replacing older liquid-fueled DF-4 missiles. The 12-13,000 km DF-41 is still under development, but is expected to begin replacing the DF-5A sometime after 2005. Both will incorporate smaller second-generation nuclear warheads. China has conducted tests of multiple re-entry vehicles (MRVs) and various penetration aids, which might be deployed on the DF-31 and DF-41.

China is also developing the JL-2, a second-generation SLBM which will be deployed on an indigenously produced second-generation Type 094 SSBN submarine. A solid-fueled missile with a maximum range of 8,000 km, the JL-2 is

expected to enter service around 2005. If the missile and submarine perform as expected (an uncertain prospect, since China's nuclear submarine program has experienced numerous technical problems and delays), the naval leg of China's triad would then become effective for the first time.

Although modernization may contribute to strategic stability by giving China a more survivable deterrent, it will also create new concerns about accidental or unauthorized launches. Little is known about China's nuclear command and control system. Mobile ICBMs and SLBMs will have warheads mated with their missiles, reducing the effectiveness of physical security in preventing unauthorized launches. These missiles will push operational launch authority to lower levels, require a more sophisticated command and control system, and rely more heavily on technical means to prevent unauthorized launches.

### **Scenario Two: Minimum Deterrent in a Missile Defense Environment**

Deployment of even a thin US NMD system would threaten China's strategic nuclear deterrent. Beijing worries that its aging ICBMs might not be able to penetrate a US NMD system after absorbing a first strike. Chinese leaders are determined not to return to a situation where they are vulnerable to US nuclear blackmail. Hence US NMD deployment would probably result in a significant increase in the size of the Chinese ICBM force, while TMD deployment in Japan might increase the number of Chinese medium-range ballistic missile (MRBMs). The need to maintain a credible nuclear retaliatory capability would likely push China to speed up its ballistic missile modernization programs, increase deployments of current missiles, or both. China might also retain older missiles in its inventory for longer periods instead of retiring them.

US planners assume that four interceptors would be needed for each ballistic missile, but Chinese experts assume a two-to-one ratio of interceptors to targets. If the United States deploys its proposed 100-interceptor NMD system, China would want at least 50 warheads to survive a US first strike in order to maintain confidence in its deterrent. This would require a

total force of 100 to 200 missiles (or a somewhat smaller number of missiles equipped with MRV/MIRV capability). More advanced US NMD architectures would result in correspondingly larger increases in China's ICBM force. The financial resources and production capability that China could devote to strategic modernization are unclear, but historically China has been willing to make considerable sacrifices in mobilizing resources to build its nuclear arsenal. Although the actual effectiveness of a US NMD system would be unknown to both sides, China is likely to assume the system is highly effective and to size its forces accordingly. The result would be a disjuncture between American and Chinese views of what constitutes a reasonable Chinese response to NMD deployment.

China has tested MRVs, decoys, and penetration aids, but has not deployed these capabilities on operational missiles. US missile defenses would make the deployment of penetration aids essential. China would probably also deploy MRVs or MIRVs to increase the number of warheads that could penetrate US missile defenses. In addition, China might try to develop an anti-satellite system capable of directly attacking key components of a US NMD system. Missile defenses would make submarines more attractive as a means of increasing missile survivability and for launching from locations and depressed trajectories where missile defenses have limited coverage. Reverse-engineering of China's Russian-built *Kilo*-class submarines or acquisition of submarine technology could accelerate China's nuclear submarine development efforts. Development of long-range cruise missiles would be another possible response. NMD deployment would probably also result in a shift in Chinese nuclear training toward salvo launches of multiple missiles that could overwhelm US missile defenses.

### **Scenario Three: Doctrinal Change toward a Limited Deterrent**

A doctrinal shift from minimum to limited deterrence could also trigger a major increase in China's strategic nuclear forces. Some Chinese strategists have suggested adopting limited deterrence to develop a nuclear *war-fighting* capability as well as a *retaliatory* capability. A credible limited nuclear deterrent must be survivable and

able to control and suppress nuclear escalation in the event of a nuclear conflict. There is a clear gap between China's current nuclear forces and the requisites of a limited-deterrence posture. Limited deterrence might cover potential regional rivals such as India and Russia as well as the United States. America's advantage in conventional forces and Russia's increasing reliance on tactical nuclear weapons may create incentives for China to develop a tactical nuclear war-fighting capability, resulting in significant increases in ICBMs, MRBMs, and tactical nuclear weapons.

China's current modernization program will produce many of the systems needed to support limited deterrence, including advanced mobile ICBMs, MRV/MIRV capability, and submarines capable of launching long-range SLBMs. A shift to limited deterrence would require greater numbers of each of these systems, which would require additional time. China would also need to move well beyond its current modernization program to develop advanced early warning satellites and radars, effective C<sup>3</sup>I systems, anti-satellite weapons, and ballistic missile defenses of its own. China's industrial and technological infrastructure is currently incapable of meeting these requirements, but sufficient development time and additional commitment of resources would eventually permit a shift to a limited deterrence doctrine.

A more modest doctrinal shift would be toward a launch-on-warning posture. China's new generation of DF-31 and DF-41 ICBMs are assessed to have relatively short launch-preparation times. China would also need to develop advanced satellite and radar early-warning capabilities and to improve its command and control system. Launch-on-warning would not require large increases in the numbers of strategic forces, and could be completed in a shorter period of time. This makes launch-on-warning a relatively inexpensive and relatively quick method of improving the credibility of China's nuclear deterrent, although it would also increase the chance of accidental or unauthorized launches. Launch-on-warning might also be part of China's response to US NMD systems, especially if only a few DF-31 and DF-41 systems were available.



## **FACTORS INFLUENCING CHINA'S STRATEGIC MODERNIZATION**

The pace and scope of China's strategic modernization will be affected by a host of internal and external factors. Internal factors include financial resources, technological capability, the weight of the military in strategic policymaking, the balance between economic development and military modernization, strategic perceptions, and nuclear doctrine. External factors include NMD deployment, China's arms control commitments, major-power relationships, foreign assistance, international strategic trends, decisions by other major nuclear weapon states, and the status of the global arms control regime.

Scenario one is likely to occur regardless of the external environment, although the pace of modernization will be affected by available resources, technical problems encountered during development, and the perceived urgency of potential threats. Technical assistance from Russia could significantly speed up China's modernization, but Russia has been reluctant to share nuclear weapons and strategic missile technology.

Scenario two (US NMD deployment) would significantly increase the ultimate size of China's strategic force, accelerate the pace of modernization, ensure deployment of MRVs/MIRVs and penetration aids, and possibly lead to adoption of launch-on-warning. The US NMD architecture and the state of Sino-US relations would directly shape the Chinese response. If the United States accepts a modest increase in Chinese forces as a rational response to NMD deployment, the impact on relations would be minimized. This would be more likely if China explicitly defines a cap on its nuclear forces keyed to a specific US NMD architecture. If the US NMD system is explicitly aimed at removing China's nuclear deterrent, as some missile defense supporters advocate, China would expand the scope and accelerate the pace of its strategic modernization and bilateral relations would deteriorate.

Scenario three (shift to limited deterrence) is possible but not predetermined. Some Chinese strategists call for developing the capabilities necessary to support a limited deterrence doctrine. Others feel that an ambitious strategic modernization program is an unnecessary waste

of resources. A major change in Chinese perceptions of the strategic environment would probably be a precondition for adoption of a limited deterrent doctrine. The ability of the Chinese military and the defense industry to justify a doctrinal shift and to claim resources for significant increases in nuclear forces will be critical. Civil-military relations, domestic politics, and strategic perceptions will all shape the Chinese debate. External factors will also influence Chinese decisionmaking. A stable strategic environment, a functioning arms control regime, and international political pressure opposing a Chinese buildup would be moderating forces. Conversely, Sino-US strategic rivalry, a breakdown in international arms control efforts, and an Indian strategic buildup that diverts international pressure would encourage a more ambitious modernization program.

Several technological and political constraints will limit the pace and scope of China's strategic modernization. China's nuclear and missile programs compete with other government programs and priorities. Resource constraints could slow modernization and make limited deterrence more difficult. However, China is much better positioned today to build a strategic arsenal than it was in the 1950s and 1960s. Technological obstacles will delay some current modernization efforts and raise the cost of other options. China has sought foreign assistance (overtly and through espionage) to improve its strategic forces, but most of the work must be done through indigenous research and engineering efforts. Finally, China has historically been reluctant to be isolated internationally. The fact that China will be building up its arsenal while other countries are building down means that international political pressure might restrain Chinese decisions about strategic force structure.

## **IMPLICATIONS OF A CHINESE STRATEGIC BUILDUP**

The first scenario (credible minimum deterrence) would have a fairly limited international impact. It would involve a relatively modest increase in deployed Chinese weapons, assuming older systems are retired. However, development of a small but modern strategic missile force would position China to significantly ex-

pand the size of its force in the future. Given China's lack of transparency on strategic issues, this potential would fuel suspicion about China's intentions among its neighbors and in the United States, complicating regional security and arms control efforts.

If US NMD deployment drives Chinese force modernization (the second scenario), China's commitment to the current arms control and nonproliferation regimes might weaken. China would attempt to use international arms control negotiations to restrain the expansion of US NMD systems (for example, by linking restrictions on outer space weapons to other arms control treaties). China would refuse to negotiate a fissile-material cutoff treaty that would prohibit future production and possibly require reductions in existing stockpiles. The heightened importance of developing a MRV/MIRV capability might prompt China to withdraw from the CTBT, if additional tests of miniaturized nuclear warheads were necessary. Beijing might also re-evaluate its nuclear and missile nonproliferation commitments in order to increase pressure on the United States to limit missile defense deployments. US TMD deployments to Japan or especially Taiwan would probably eliminate China's willingness to expand its international nonproliferation commitments or to adhere to bilateral commitments.

Because this scenario involves a significant expansion of China's strategic nuclear force, it would have a broad negative impact on international arms control and nonproliferation regimes. In the worst case, the United States might interpret China's buildup in response to a US NMD deployment as evidence of hostile Chinese intentions, stimulating an arms race and an end to cooperation on regional security, nonproliferation, and arms control issues. The United States might also respond by attempting to build a "thick" NMD system capable of neutralizing China's nuclear deterrent. The costs of such an offense-defense arms race would be heavy for both sides, and it is not clear whether the technology for a "thick" missile defense system would be effective or affordable. China's nuclear buildup in an arms race with the United States would have major negative consequences

for other regional actors, such as Japan, Russia, and India.

A doctrinal shift from minimal deterrence to limited deterrence would call China's NFU pledge into question. The associated build up of Chinese nuclear missile forces, coupled with a US-Russian START III build-down, would move China closer to numerical parity. This could have two contradictory consequences. China's two-decade free ride on superpower nuclear weapons reductions might end, as international pressure mounted for China to participate in the global nuclear disarmament process. However, the United States and Russia might reconsider further reductions in their strategic nuclear arsenals, especially if China refused to make reductions in its arsenal. A shift in Chinese nuclear doctrine would probably be interpreted by the United States as evidence of Chinese hostility, which would worsen relations and undermine regional stability.

Any significant expansion of China's nuclear force would have important implications for regional security dynamics. Some Japanese analysts would interpret China's strategic modernization as a threat, especially if it includes a shift to limited deterrence and an expansion in the number of MRBMs. The closing of the gap between Chinese nuclear missile forces and US military capabilities and the potential for nuclear exchanges in the western Pacific could cause Tokyo to question the credibility of extended deterrence and the US nuclear umbrella. This might lead Japan to make a greater commitment to theater missile defense and to reconsider its nuclear and ballistic missile options. This reassessment might also be triggered by an easing of tensions on the Korean peninsula, which might undercut the rationale for a forward-based US presence in Northeast Asia.

India would also be directly affected by China's nuclear modernization programs. India would point to Chinese modernization as justification for its own strategic buildup, impeding international efforts to pressure India to cap its nuclear and missile programs. However, China would continue efforts to use the international arms control regime to pressure India, fueling bilateral tensions. As China's strategic forces become more capable and move toward a higher-alert status, India might feel the need to

enhance the credibility of its own nuclear and missile forces. The resulting arms competition would further erode the nuclear nonproliferation regime and damage the fragile consensus among the nuclear weapons states.

## **POLICY OPTIONS AND ISSUES**

Although some degree of Chinese strategic modernization is inevitable, outsiders have some ability to influence the pace and scope of China's buildup.

US decisions about NMD will directly shape Chinese decisions about force structure. If the United States decides to deploy NMD, it should initiate a strategic dialogue with China to clarify the technical parameters of the NMD architecture and to discuss China's responses. Strategic dialogue is important because differing assessments of NMD's effectiveness mean that many Americans will view China's response as excessive, even if China feels it is being restrained. The goal should be to minimize damage to bilateral relations through mutual strategic reassurance. The United States might offer assurances about the ultimate scope of its NMD system; China might offer greater transparency about its modernization plans (possibly including force structure levels keyed to specific missile defense architectures). Open-ended US plans for NMD expansion or an explicit effort to nullify China's nuclear deterrent would have a devastating impact on relations, which would foreclose prospects for future security and arms control cooperation.

In emulating US and Russian modernization patterns, China is moving away from its previous secure force structure and increasing the possibility of accidental or unauthorized launches. Bilateral or trilateral dialogue about nuclear command and control, nuclear weapons safety, and operational security might help find solutions that maintain survivability at lower alert levels and minimize chances of accidental or unauthorized launches. Greater Chinese transparency and technical exchanges about nuclear command and control and permissive action links may be useful in addressing these concerns. China might also be invited to participate in a joint missile early warning center, as a confidence-building measure.

External factors such as the overall state of the nonproliferation and arms control regimes will influence Chinese modernization plans (especially on the question of doctrinal change). Robust regimes will increase pressure on China to restrain its strategic buildup; regime breakdown will reduce the costs of unilateral modernization. China has historically responded to international pressure, especially when it is isolated. (For example, pressure to stop nuclear testing played a major role in persuading China to sign the CTBT.)

Technology exports to China have become a contentious American political issue. As China's strategic and military modernization continues, the United States will seek to restrict the transfer of military and dual-use technology to China. The United States will urge its allies to strengthen domestic and international export control regimes to address its concerns about Chinese modernization. These efforts will increase tensions with US allies who may not share Washington's perceptions about a potential China threat. They will also impede cooperative efforts to improve China's export control system and reduce incentives for China to comply fully with its nonproliferation commitments.

**THREE SCENARIOS FOR CHINA'S STRATEGIC MODERNIZATION**

	<b>Current Forces</b>	<b>Scenario 1: Minimal Deterrent (2010)</b>	<b>Scenario 2: Minimal Deterrent w/NMD (2020)</b>	<b>Scenario 3: Doctrinal Change (2020-25)</b>
ICBMs	18-26 (DF-5A)	About 50 (DF-5A, DF-31, DF-41)	100-200 (DF-5A, DF-31, DF-41)	100-200 (DF-5A, DF-31, DF-41)
Range (km)	13,000+	13,000+ (DF-5A)	13,000+ (DF-5A)	13,000+ (DF-5A)
Fuel	Liquid	Solid	Solid	Solid
CEP (km)	0.5 – 3.0	0.7-0.8	0.7-0.8	0.7-0.8
Launch preparation time	2 hours (DF-5A)	5-10 minutes (DF-41)	5-10 minutes (DF-41)	5-10 minutes (DF-41)
Mobility	None	Road Mobile	Road Mobile	Road Mobile
MRBMs	100 (DF-3/3A, DF-21, JL-1)	100	100	100-300
Advanced Early Warning	No	No	No	Yes
Launch Authorization	Landline/ senior officer in command	Radio communication/ more junior officer in command	Radio communication/ more junior officer in command	Radio communication/ more junior officer in command
Accidental launch risk	Nil (warheads not mated to missiles)	Minimal (warheads mated to mobile missiles)	Minimal (warheads mated to mobile missiles)	Minimal (warheads mated to mobile missiles)
Launch-on-Warning	No	No	No	Possible
Multiple Re-entry Vehicles	None	Possible	Yes	Yes
Penetration Aids	None	Possible	Yes	Yes
Doctrine	Minimal Deterrent	Minimal Deterrent	Minimal Deterrent	Limited Deterrent

**CHINA'S CURRENT AND PROJECTED STRATEGIC MISSILE FORCES**

<b>Chinese Designation</b>	<b>NATO Designation</b>	<b>Initial Operational Capability</b>	<b>Fuel/Basing</b>	<b>Range (km)</b>	<b>Warhead Type</b>	<b>Number Deployed/ Projected*</b>
DF-3/3A	CSS-2	1971	Liquid/ transportable	2,800	1-3 mt	40
DF-4	CSS-3	1980	Liquid/cave	4,750	2 mt	20
DF-5/5A	CSS-4	1981	Liquid/silo	13,000	3-5 mt MRV?	18-26
DF-21/21A	CSS-5	1986	Solid/TEL	1,700	200-300 kt	48
JL-1	CSS-N-3	1986	Liquid/SLBM	2,150	250 kt	12
DF-31	CSS-X-9	Tested in 1999	Solid/TEL	8,000	50-90 kt MIRV?	10-20 to be built
DF-41	CSS-X-10	Under development	Solid/TEL	12,000	250 kt MIRV?	12 to be built
JL-2 (based on DF-31)	CSS-NX-5	Under development	Solid/SLBM	8,000	250 kt	16 to be built?

\*All figures are approximations. Projections are based on Scenario 1 (2010). The DF-41 will eventually replace deployed DF-5A missiles, but the two systems will co-exist for a period of time.

# PROBLEMATIC THINKING AND NONPROLIFERATION STRATEGY

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This review is based in part on a presentation by the author to the Monterey Nonproliferation Strategy Group in its July 2000 meeting, and in part elaborates on discussion of papers included in this publication.<sup>‡</sup> Although the group's deliberations encompassed a wide range of issues and perspectives, this discussion focuses narrowly on three generic problems that impede sound thinking and prudent planning in nonproliferation affairs.

## THINKING ABOUT PROLIFERATION AND NONPROLIFERATION

There are two fundamental risks in conventional thinking about the international regimes that are designed to forestall and cope with NBC/M threats, and a profound deficit in current policymaking with respect to those regimes. First, the nonproliferation regimes are imperiled in part by their very success in coping with many threats. We are doing much better than earlier generations of leaders ever expected, but increasingly the gains won through these regimes have become so familiar that decisionmakers in important capitals have come to take them for granted. Due to ongoing technological and political change, however, unless serious efforts are undertaken to continually strengthen the regimes, advances attained through them may be nullified or even reversed.

Second, in nonproliferation affairs as in other areas, it is imperative not to confuse the *means* of policy implementation with the *ends* of policy itself. Nonproliferation is an objective on the US and international security agenda; re-

gimes, alliances, and military capabilities are instruments to serve this or other security objectives. There appears to be widespread confusion among influential expert communities, however, between the objectives and instruments of security policy.

A third problem is lack of planning either in government or the non-governmental community for political crisis management. While the professional responsibilities of the armed forces ensure planning for war, there is not adequate planning in diplomatic ministries or among international organizations for proliferation crises short of war, or for the political impact of the use of unconventional weapons. We need to envision possible scenarios for state or non-state use of nuclear, biological, or chemical weapons, and prepare in advance both conceptually and politically to be ready to respond to such developments.

## Taking Gains for Granted

Promoting nonproliferation of nuclear, biological, chemical, and missile weapons has always been a difficult venture, but it has nonetheless achieved a noteworthy level of success. Despite this record, determination to set ever-higher standards for success may put current gains at risk.

Nonproliferation policy has been an uphill struggle for four reasons. First, this objective has always had to compete with other security, political, and economic goals on the foreign policy agendas of leading states. Efforts to promote nonproliferation thus sometimes lose out to other policy goals. Second, except through outright military occupation, denying military technologies to potential proliferants is intrinsically difficult. Industrial and technological development, an increasingly open international trading system, and the rising number of potential suppliers all make it hard to block a determined state with financial resources from

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<sup>‡</sup> A list of the participants—who engaged in not-for-attribution discussions as individuals rather than as institutional or national representatives—follows. I have sought to draw upon the sense of members' deliberations in developing the arguments presented here, but am alone responsible for their specific expression.

acquiring unconventional weaponry. Third, promoting nonproliferation of nuclear weapons in particular is made harder by the discriminatory approach followed by leading states. It is naturally difficult for the five nuclear-weapon state members of the NPT to argue that the further spread of nuclear weapons is dangerous and immoral, but that their own retention of nuclear weapons is necessary for national and international security. Finally, even nonproliferation success entails some proliferation risks, as the post-South African apartheid and especially the post-Soviet proliferation legacies demonstrate.

Despite these difficulties, however, in the year 2000 we do not face the world that President John F. Kennedy and many others once feared, in which dozens or scores of states brandish atomic weapons. In the early 1960s, every state but Canada that could have built nuclear weapons had done so. Today, the vast majority of states with the industrial and technological wherewithal have chosen to never do so. During the past decade, moreover, of the 12 states that have ever acquired the bomb, four definitively renounced it (Belarus, Kazakhstan, Ukraine, and South Africa). Not only has restraint increasingly outstripped proliferation with regard to weapons acquisition, but norms have been established against the use, sale, transfer, and testing of nuclear weapons. We can (and arguably should) bemoan the irresolute international response to India's and Pakistan's nuclear tests in May 1998, but we should not forget that international acclaim greeted China's first nuclear test in 1964. Taking a broad historical vantage, and considering recurrent failures to prevent the diffusion of potent military technologies in prior historical eras, nuclear nonproliferation is a campaign that on balance *we are winning*.

Moreover, the NBC/M "battles" we have "lost" or "tied" over the past decade certainly indicate the limits, but also suggest some of the contributions, of the international nonproliferation architecture in minimizing proliferation risks. In the absence of the regimes—and the unsatisfactory but still significant commitment to nonproliferation on the part of key states—it is hard to see how we could have gotten through the 1990s without a loose Soviet nuke,

overt Iraqi NBC/M reconstitution, or DPRK nuclear weaponization. Yet paradoxically, these and other remaining NBC/M threats have come to overshadow the broader pattern of success in the minds of policymakers in Washington and other influential capitals. The serious threats they pose notwithstanding, it would be foolhardy to allow belligerent obstructionism in Baghdad or Pyongyang to become the fulcrum that wrecks multilateral nonproliferation regimes, arms control, and great power collaboration in international security affairs.

Furthermore, many fail to recognize that part of our frustration is due to the admirable fact that we are setting ever-higher standards for success in nonproliferation affairs. In at least five ways, we are demanding more of the regimes than we did in the past.

- First, we have gone from expecting states to become members of nonproliferation treaties to asking them to pay significant costs to enforce them. It is much easier to ask a country to join the NPT than it is to expect it to impose economic sanctions on oil-rich Iraq, for instance.
- Second, we have moved from promulgating lofty aspirations to demanding concrete action. For example, the NPT did not require a time-bound schedule for nuclear disarmament by the nuclear-weapon state parties to the treaty, but the CTBT mandates that India, Israel, and Pakistan refrain from testing nuclear explosives and accede to the treaty.
- Third, our attention has inevitably shifted from easiest to hardest cases, from those states with the weakest interest in NBC/M capabilities to those most determined to acquire such weapons. The vast majority of signatories to the NPT, BWC, and CWC have no interest whatsoever in acquiring nuclear, biological, or chemical weapons; we should not be surprised to find it far more difficult to convince the remaining holdouts to join or the few cheaters to comply.
- Fourth, the international community has moved from discriminatory toward universal prohibition regimes. While the NPT accepted nuclear proliferation by five states

and the MTCR accepts missile proliferation by several more, the CTBT, the CWC, and the BWC protocol under negotiation in the 1990s allow no such exceptions.

- Finally, we have moved from technologies that are relatively easier to track and control to those that are much more difficult to deal with. While nuclear weapons acquisition involves observable indicators and dedicated facilities and technologies, chemical and especially biological weapons-applicable technologies are much more widely diffused, ubiquitous in legitimate civilian activities, smaller scale, and thus inherently harder to control.

Given these five ways in which we are demanding more of the nonproliferation regimes, we need to set reasonable standards for success so that the inevitable frustrations do not distract attention from what, on balance, is an impressive pattern of success. Without such a perspective, we tend to take for granted the gains won through the nonproliferation regimes. This undermines political will to pay costs to shore up the regimes, or worse, opens space for policy measures that may undercut them. US deployment of NMD provides a consequential example. Some advocates may not have considered the full range of measures that other actors could take to counter US abrogation or withdrawal from the ABM Treaty and NMD deployment. Some may even presume that the global threat environment will remain unchanged even if the international nonproliferation architecture moderating that environment is toppled.

### **Mistaking Means for Ends**

In several respects, contemporary thinking and debates about proliferation confuse security instruments with the objectives toward which they are employed. It is, of course, easier to recognize this type of conceptual error in others' thinking than among like-minded members of the nonproliferation community. In other words, we promote nonproliferation as a means to enhance US and international security. We must ensure that our efforts to sustain the nonproliferation regimes actually serve to avert or contend with proliferation threats, rather than merely preserve the regimes for their own sake.

Like alliances or particular kinds of military hardware, the nonproliferation regimes are not of value per se but only insofar as they serve US and international security. Hence when multilateral endeavors for whatever reasons do not effectively address proliferation threats, we should expect compensatory unilateral action by states with greater liberty of action. In some measure, more frequent US recourse to unilateral security measures should be seen in this light. Conversely, however, NMD is a policy instrument for the United States that should, at minimum, produce net gains (or prevent net losses) for US national security. The reluctance of US officials and NMD advocates to consider likely reactions by China, Russia, and US allies in Europe suggests that NMD has become an initiative valued for political reasons or for its own sake, and not for its net contribution to US national security.

To some degree, the ends-means confusion is also evident among advocates of nuclear disarmament, as well as those who seek to buttress nuclear deterrence as a permanent basis of security policy. With regard to the former, some proponents of disarmament may tacitly assume that security benefits currently provided by nuclear deterrence will be preserved even if nuclear weapons are eliminated. With respect to the latter, while deterrence may have been pivotal to avoiding world war during the period of US-Soviet confrontation, it may be less necessary or relevant to forestalling conflict today, and become even less so in a future international security environment. Regimes, deterrence, and disarmament are all means toward the end of a safer world; undue allegiance to any of these means may undercut the prospects for realizing this shared objective.

These observations have implications for nonproliferation strategy and policymaking, as two examples indicate. First, for multilateral nonproliferation regimes to be effective, they must be open to full participation by such countries as China, France, and Russia. But for the United States to view multilateral efforts as efficacious means to pursue US national security, it must see China, France, and Russia playing *constructive* roles in those efforts. Thus to the degree that these states failed to support UNSCOM and the United States in confronta-

tions with Iraq, they should not be surprised to find an increased propensity for unilateral US action in coping with Iraqi or other proliferation threats.

Second, the current US debate over deployment of NMD pits advocates of multilateral arms control and nuclear deterrence against those who criticize treaty commitments and applaud unilateral missile defenses. In important respects, the terms of this debate over approaches to national security have led both camps to take contorted positions. The Clinton administration has reportedly assured the Russian leadership that they will still be able to inflict nuclear devastation upon the United States following US NMD deployment. Moreover, the administration was tardy in engaging NATO allies' serious concerns for the impact of NMD on strategic stability. For their part, NMD proponents apparently accept that in response to deployment, China will increase the number of nuclear warheads targeting the United States, and that Russia will reduce its strategic stockpile less than it would in the absence of NMD. Hence to counter a putative DPRK threat, those favoring unilateral NMD deployment are willing to accept an overall increase in the number of nuclear weapons that threaten the US homeland. Thus, due to their respective fixation on particular security instruments, both the Clinton administration and more categorical proponents of NMD have lost focus on the purpose of national policy, which is to enhance security.

### **Preparing for Proliferation Crises**

For good or ill, or perhaps an unholy admixture of both, the next use of NBC weapons may be a watershed in international security affairs. Less cataclysmic but much more probable, the future is apt to hold political crises resulting from acquisition of NBC/M capabilities or threats to employ them in conflict. Although often downplayed, moreover, the risk of accidents or unauthorized or unintended use of NBC/M capabilities will remain as long as the weapons exist. In considering issues as diverse as a potential biological weapons attack, DPRK missile testing, and the safety of nuclear weapons in South Asia, government agencies and

NGOs need to engage in advance planning and preparations for coping with future crises.

For at least four reasons, we should engage in serious nonproliferation planning for "the day after." First and most obvious, although hopefully not every year will contain as many menacing developments as did 1998, we do expect that there will be future proliferation crises. Although we cannot know the details of future crises or anticipate when they will appear, we can trace likely scenarios well in advance. Second, crises will present opportunities; indeed, the more dreadful or momentous the crisis, the greater the opportunity. At such moments, proliferation threats rise to the top of senior policymakers' agenda, and public attention is focused, at least briefly, on potential threats. Lamentably, all too often it takes a crisis to prompt greater public awareness of enduring international dangers and political commitment to address them. Third, because such events are infrequent but may be pivotal, we cannot afford to "muddle through" in an ad hoc fashion. For example, the G-8 meeting following the May 1998 South Asian nuclear tests produced only a hasty and short-lived reaction to overt Indian and Pakistani nuclear proliferation. Fourth, a common public commitment by major international actors to respond would create a political deterrent to the kind of behaviors that lead to crisis. Had the G-8 or P-5 developed a common position to sanction or otherwise respond to nuclear weapons testing, for example, it would have contributed to factors discouraging India from testing in the first place.

Although a range of developments merit attention, here we emphasize the need to prepare, conceptually and politically, for potential disasters in South Asia or involving use of biological weapons. We can envision a diverse set of scenarios that could constitute a major BW incident, differing in terms of the perpetrator (state or non-state actor), victims (human or agricultural; military personnel or civilian population), regional location, geographic scope, as well as lethality. The impact of a BW incident could vary widely, depending on the scenario, with accordingly dissimilar political consequences. For example, the perceived lack of military utility of biological weapons was an important factor leading to US termination of its BW



program and to international participation in the BWC. If and insofar as this perception changes as a result of a compelling incident of BW use, the prospects for constraining BW proliferation could plummet. Likewise, if such an attack were to call into question the safety of agricultural exports, the impact on international commerce and public subsistence could be alarming. Intellectual and diplomatic preparations to contain the political damage of such attacks should become an important part of strategic thinking on nonproliferation policy.

With regard to India and Pakistan, we need to prepare for renewed nuclear testing, an accidental nuclear explosion or missile launch, or a nuclear accident within one of these countries. The proliferation consequences may vary enormously depending on scenario. While the use of nuclear weapons against urban populations might catalyze international revulsion to the bomb, discriminate use of such weapons for tactical purposes against military forces might create the global impression that nuclear weapons are “safe” for war. This latter scenario could lead to a dramatic escalation in the pace and geographic distribution of proliferation, if national security planners reached common conclusions about the military utility of nuclear weapons. By contrast, a nuclear accident—presuming it did not produce a false impression of foreign attack and lead to a nuclear exchange—would underscore the inherent risks entailed by acquisition of such weapons. In any event, while the initial devastation of a deliberate or unintentional nuclear explosion might be regionally contained, the political impact of such a development almost certainly would not.

Preparing for such eventualities should include both analytic and political dimensions. The former would involve a conceptual survey of scenarios and their implications. The latter would require identifying specific policy responses, which might range from military retaliation to economic embargo to public education, and so forth. To the extent possible, it would also involve negotiating advance commitments by influential actors, ranging from key states to international bodies to non-governmental policy networks, to forcefully implement such responses.

For instance, to discourage other ambitious states from following India’s example, it would be useful for members of the G-8 to jointly declare that they will support reform of the UN Security Council *only* if any additional permanent members are required to be NPT members in good standing. Likewise, to discourage the use of biological weapons, current members of the UN Security Council should commit to sanction any state that employs BW. The international community could thus avoid the perception of acquiescence occasioned by its feeble response to Iraqi use of chemical weapons in the 1980s, which encouraged chemical weapons proliferation. By thus preparing for proliferation crises and NBC disasters in advance, we may not only be better positioned to mitigate their political consequences, but contribute to preventing their occurrence.

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The Monterey Nonproliferation Strategy Group met at the Center for Nonproliferation Studies of the Monterey Institute of International Studies on July 12-14, 2000. The preceding text does not necessarily reflect the views of the group as a whole or of its individual members, and the affiliations listed below are only for the purpose of identification.

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- No. 3 *Nonproliferation Regimes at Risk*, Michael Barletta and Amy Sands, eds., November 1999
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