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Nonproliferation Regimes At Risk

Michael Barletta and Amy Sands, eds.

Monterey Nonproliferation Strategy Group

THE CENTER FOR NONPROLIFERATION STUDIES

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FOREWORD

The US Senate's rejection of the Comprehensive Test Ban Treaty (CTBT) in October 1999 has focused international attention on the challenge of sustaining international nonproliferation regimes into the coming century. Indeed, at present most of the nonproliferation regimes (i.e., treaties, organizations, and the norms they promote) are under siege. Proliferation challenges have intensified over the last two years, and have come in many forms and on many different fronts, including:

- Russia's economic collapse and the growing difficulty of safeguarding its vast arsenal of weapons of mass destruction and related material, technology, and know-how;
- emerging Indo-Pakistani nuclear and missile arms races;
- Iraq's defiance of United Nations Security Council-mandated weapons inspections;
- North Korean nuclear and missile brinkmanship;
- fractious NPT PrepComs auguring likely disputes at the Review Conference in 2000;
- increased risks of chemical, biological, and radiological terrorism;
- erosion of US-Russian cooperation on nonproliferation; and
- widespread complacency among the public at large and their elected representatives.

These and other developments have undermined the nonproliferation regimes to such a degree that their long-term viability is now in question. The CTBT has already been dealt a body blow by the US Senate. Unless creative remedies are identified and corrective action undertaken in the near future, we may soon witness defections from the NPT, the demise of the Missile Technology Control Regime, the crippling of the Chemical Weapons Convention, and the irrelevance of the Biological Weapons Convention.

To address these multifaceted challenges, in July 1999 the Center for Nonproliferation Studies launched a new initiative: formation of the Monterey Nonproliferation Strategy Group. This international body of seasoned policy practitioners and renowned nonproliferation analysts aims to generate innovative but practical nonproliferation policy recommendations for global adoption and implementation.

This publication compiles works prepared for and based on the first meeting of the Monterey Nonproliferation Strategy Group, held July 5-7, 1999, in Monterey, CA. Together, these papers comprise a concise yet comprehensive examination of the many new and ongoing proliferation challenges. They also contribute to the vital process of outlining practical steps toward their resolution.

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November 1999

THE NONPROLIFERATION REGIMES AT RISK

by Amy Sands

Concern has emerged about the future of nonproliferation efforts, as many proliferation issues remain unresolved, inadequately addressed, and in some cases ignored. The uneven record to date of addressing nonproliferation problems quickly and effectively is undermining the normative and organizational foundations of the nonproliferation regimes. Neglect, weak leadership, pressing domestic issues, post-Cold War uncertainties, and “New World Order” tensions are all hastening this erosion. Over the next few years, events with potentially disastrous impact may confront the nonproliferation regimes with significant challenges.

We are at a watershed that will determine whether the various nonproliferation regimes will collapse, muddle through, or become effective parts of the nonproliferation game plan. Despite considerable growth in nonproliferation efforts and widespread rhetorical support for the nonproliferation norm, the regimes appear threatened by an outbreak of weapons proliferation. Weaker regimes will lead to growing security threats, the increasing likelihood of violent conflicts, and the intensification of conflicts should they occur.

Significant progress has occurred in the nonproliferation treaty regime in the last decade. Less than five years ago, nuclear nonproliferation efforts made great advances with the permanent, indefinite extension of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the completion of the Comprehensive Test Ban Treaty (CTBT); the Chemical Weapons Convention (CWC) entered into force; and progress appeared to be occurring in developing enhanced compliance measures for the Biological and Toxin Weapons Convention (BWC). Also, the Intermediate-Range Nuclear Forces Treaty (INF), the Treaty on Conventional Forces in Europe (CFE), and the Strategic Arms Reduction Treaty (START I), all dealing with more traditional arms

control areas, helped redefine the European security environment in the early part of the decade. Confrontational relations between the two largest nuclear weapon states, while still in transition, have become much less intense as each state reduces its nuclear weapons arsenal and the likelihood of military conflict between them is minimized.

Several other events raised expectations that the threat of nuclear, chemical, biological, and missile proliferation might be significantly reduced and eventually eliminated. Argentina and Brazil ceased pursuing nuclear and missile capabilities and developed effective bilateral nuclear safeguards and confidence-building measures. South Africa, after admitting it had developed a small nuclear arsenal, dismantled its program and then gave access to inspectors from the International Atomic Energy Agency (IAEA) to verify the elimination of the weapons and the related weapons program. Ukraine, Belarus, and Kazakhstan all voluntarily gave up the nuclear and missile capabilities left in their territories when the Soviet Union collapsed. Finally, the threat of Iraq’s weapons of mass destruction was contained and its capabilities largely dismantled because of the activities of United Nations Special Commission on Iraq (UNSCOM).

The norm of nuclear nonproliferation also gained significant support, as reflected in the near universality of membership in the NPT (only Cuba, Israel, India, and Pakistan remain non-members). In addition, most of the southern hemisphere is now covered by nuclear-weapon-free zones (NWFZs), as the Treaty of Pelindaba, the Treaty of Raratonga, and the South East Asia Nuclear Weapons Free Zone were finalized and came into effect. As the decade ends, the trends appear to be positive: more states gave up nuclear weapons this decade than are actively trying to obtain them, and the number of states interested in acquiring chemical or biological weapons

appears to have stabilized. Thus, the nonproliferation record in the 1990s seems quite impressive. The nonproliferation regimes have helped to create predictability, stability, and security in many regions of the world.

The long-term success of many of these nonproliferation arrangements is still to be proven, however, and depends largely on how member states implement and enforce them. So far, the record is mixed. Traditional arms control efforts, such as the INF, CFE, and START I treaties, appear to have made significant progress in halting or least slowing various arms races. But even these treaties have experienced serious bumps in the road, and at times substantial questions about compliance have been raised. The picture becomes increasingly bleak when the multilateral nonproliferation agreements and treaties covering chemical, biological, and nuclear weapons are examined. Here there are many unresolved issues that could cripple the specific treaties involved and undermine the entire nonproliferation regime.

Problems debilitate or threaten the effective implementation of specific treaties such as the NPT, BWC, and the CWC, and there are significant country-compliance concerns involving states such as Iraq, North Korea, and Russia. Also, the bilateral relations between the United States and China and the United States and Russia, critical to successful nonproliferation efforts, are facing difficult times. While proliferation may have been removed as an issue in parts of the world, it remains a substantial threat in several regions and is capable of acting as a catalyst to other states rethinking their own decisions not to acquire weapons of mass destruction (WMD).

Moreover, as this decade ends, interest in and concern about proliferation seem to be wavering, creating uncertainty about the international community's commitment to nonproliferation. The message is a garbled one. States have engaged in efforts to strengthen several regimes—the IAEA's Model Protocol, the enhanced NPT review process, the Ad Hoc Group for the BWC, and the CWC verification regime—but these efforts appear to be losing momentum. Instead of

strengthening their respective regimes, such efforts may be revealing the hollowness of commitments that states are making today. Nonproliferation rhetoric is not being supported by resources or political will, as is evident in the continued inadequate funding given to the IAEA, to the Agreed Framework with North Korea, and to Russian chemical weapons dismantlement. Examples where political support has been inconsistent and insufficient include the failures to complete the dismantlement of Iraq's WMD programs, negotiate a verification protocol for the BWC, and bring the CTBT into force.

Of great concern to policymakers and analysts is the significant, willful noncompliance by Iraq, the Soviet Union/Russia, and North Korea. Various methods and tactics have been used in each of these cases, but so far, none have been very successful, and none give great hope for future success. The recent failure to develop a consensus in the international community or in the United Nations Security Council to deal with the continued Iraqi intransigence about revealing weapons of mass destruction and verifying their destruction is a glaring gap in the strategy to defeat an ongoing proliferation threat. This problem was seen earlier in the decade when the Security Council was faced with North Korea's noncompliant behavior under the NPT, and remains a potential concern each time the Agreed Framework is called into question. It was also evident a decade ago when nothing was done after Iraq used chemical weapons during its war with Iran in direct violation of its obligations under the Geneva Protocol of 1925.

The lack of clarity about determining compliance, whether it involves questions about Iraqi weaponization of the chemical agent VX or concerns about the Soviet biological weapons program, is only one aspect of the problem. There are no internationally accepted processes for determining what happens once noncompliant behavior becomes evident or for deciding who will have ultimate responsibility for resolving these issues. Thus, the approaches taken to deal with noncompliance appear to be empty shells, giving rise to doubts concerning the commitment of

states to their nonproliferation rhetoric and the credibility of the regime.

At the same time, the ambiguous commitments by key states such as Russia and the United States to nuclear, chemical, and biological weapons disarmament create a subtler, but no less insidious set of problems. If the nuclear weapons states do not treat their obligations to pursue nuclear disarmament under Article VI of the NPT seriously, or are not sufficiently transparent about their chemical or biological activities, they undermine their ability to convince other, less secure states to follow through on their own commitments. It forces states to rely on their own capabilities to ensure national security, rather than trust the commitment and verification provisions of an international treaty.

How did the euphoria of the international community in the early 1990s turn to such pessimism about UNSCOM, the NPT, the CTBT, the CWC, and the BWC? What has happened to make so many experts worried about the direction of these regimes?

CONTEXTUAL TRENDS AFFECTING THE NONPROLIFERATION REGIME

Efforts to combat proliferation now have to overcome numerous obstacles. These impediments range from uncooperative state behavior to the intrinsic nature of nuclear, chemical, and biological weapons. Specifically, the challenges include:

- increasing numbers of actors, state and non-state, involved in arms control;
- the different technical capabilities of states engaged in multilateral arms control;
- continued international diffusion of information and global technological advancement;
- the dual-use nature of the materials and equipment involved in chemical, biological, and nuclear weapons;
- a lack of consistent leadership and political will to deal with proliferation issues when they emerge;

- an increasing focus on domestic issues and domestic pressures at the expense of international nonproliferation concerns;
- the critical role of regional dynamics;
- inter-regime dynamics; and
- the unproductive tenor of the discussion.

Briefly stated, today's nonproliferation environment is different in some fundamental ways from previous times. Not only are there more players and more issues, and thus, more complexity, but destructive technologies are more available and societies are more vulnerable. It is a new world, multilateral, multifaceted, diverse, and perhaps more chaotic than it has been since the end of World War II. This oft-repeated litany about the post-Cold War era reflects not only the shift from bilateral arms control to multilateral nonproliferation efforts, but also the introduction of multiple actors with diverse characteristics and interests, and uncertain and changing economic and political situations and relationships. This new configuration of forces presents more than just new problems heaped on the old ones—there should also be opportunities for innovative approaches and new dynamics.

The transitional nature of today's world brings with it an uncertainty that pushes states to protect their own needs first and worry about international or long-term implications second. States have become more reluctant to relinquish sovereign rights to international agreements or organizations. The hopes of the early 1990s for a "New World Order" of transnational networks, increased transparency, and greater inter-state trust have not been achieved. Moreover, with so many actors perceiving varied national security needs, the salience of nonproliferation in general and any individual issues will differ considerably from actor to actor, making it much more difficult to develop and sustain the international consensus needed for most nonproliferation activities.

Key actors also appear to lack the political will to address looming nonproliferation challenges consistently and forcefully. The United States, especially in President Clinton's second term, has not demonstrated the kind of leadership and

diplomatic initiative that would convince others to follow. Distracted by domestic politics and concerns, the executive branch has no strong plan for completing the efforts of the Ad Hoc Group to strengthen the BWC. Also, it did not pursue an effective strategy for CTBT ratification by the US Senate, and it has wavered in its support for UNSCOM, strong export controls, and implementation of the CWC. Meanwhile, conservatives who distrust international organizations and multilateral arms control dominate Congress. The result has been to create uncertainty and mistrust of US intentions in the international community: does the United States want to insure the longevity of its unipolar moment, withdraw into isolation, or lead the world into a new world order based on collaborative multilateralism?

Two additional aspects of US leadership affect today's nonproliferation efforts. One involves the realization by the United States that being the dominant military power in the current international political system does not necessarily result in its being able to control international organizations or events. The other involves the American public, which is resistant to pursuing hard-line approaches to proliferation threats if they might result in bloody conflicts. A majority of Americans, having been raised in the prosperous and stable second half of the 20th century, appear unprepared to sacrifice much to address international nonproliferation problems.

Another characteristic of current times is that domestic politics dominate the ways that many states are responding to international concerns. The end of the Cold War not only lessened the global threat of nuclear war; it also shifted the focus for many states to internal issues and problems. States do not see many current external threats that are worth fighting over, and most do not have a long-term perspective on international issues. One lesson of the Iraq quagmire is that the world does not deal well with long-term proliferation problems. Moreover, without strong political leadership to promote the nonproliferation agenda consistently and intensely, states will tend to focus on domestic concerns until an international crisis or catastrophe is close at hand.

Until then, engaging in lengthy, costly sanctions or even limited military actions will not be attractive policy options to most states.

Particularly sobering is the centrality of domestic politics in several key states, such as Russia, China, Israel, India, and Pakistan. In each case, leaders have shown themselves reluctant to pursue policies unpopular at home or costly for some domestic constituency. Whether it is the Russian leadership's unwillingness to crack down on questionable nuclear and missile sales or Pakistan's decision that it too had to test nuclear weapons, the situation remains that states are looking inward for their priorities and guideposts. The result is that nonproliferation is rarely the highest priority of states, despite the extensive rhetoric claiming that proliferation is one of the most significant threats to international security and stability. While it is easy to be critical of this mindset, it has to be recognized as a real limitation on how states will be willing to address international proliferation threats.

Special attention needs to be given to the unsettled relationships between the United States and Russia and the United States and China. In both cases, internal politics now significantly constrain the abilities of governments to engage in constructive dialogues and to work collaboratively in the field of nonproliferation. What had once been an area of cooperation during the Cold War for the Soviet Union and the United States, is now one of differing agendas and priorities, set against a backdrop that will for some time into the future include ultra-conservatives on both sides and an extreme imbalance of power and capabilities. With presidential elections approaching in both states, it is unlikely that much headway will be made on several fronts that are critical to the health of the nonproliferation regimes.

The relationship between the United States and China faces a separate set of issues. The US interest in national missile defense (NMD), US support for Taiwan, and possible Chinese espionage have combined with recent events in Kosovo to unhinge a relationship that in the last year had gotten onto a constructive diplomatic

track. Cooperative nonproliferation efforts, whether they involve Iraq, North Korea, or sales of WMD materials, will now be more difficult, if not infeasible for some time.

Regional dynamics must also be acknowledged as critical factors when trying to address the proliferation threat and the nonproliferation regime's weaknesses. Many experts believe that expansions of NATO have affected the US-Russian relationship negatively, limiting progress on strategic and tactical arms control and making discussions on a host of other issues much more difficult. The decision by NATO to use military force in Kosovo further hampered constructive US-Russian arms control discussions and definitely stalled US-Chinese cooperation.

In other areas of the world, regional relationships are even more central to proliferation issues. In the Middle East, the success of the peace process will be at the core of the ability to move forward on nonproliferation efforts. Similarly, in Northeast Asia and South Asia, progress on nonproliferation will not occur until significant movement occurs in the political dynamic of key states. Since so many of the remaining proliferation challenges are based in regional struggles, we must recognize the primacy of the regional dynamic and work with the key regional states to develop constructive regional initiatives that will not undermine international nonproliferation agreements and norms.

In addition to states, non-state actors covering a broad spectrum of societal organizations, such as industry, media, non-profit organizations, non-governmental grassroots groups, and users of the Internet, must now be recognized as influential actors. Each of these now second-guesses and pressures governments, often defining what the public understands or sees about certain situations, whether it is in the Sudan, Russia, or New York City. Groups attuned to the new information technologies are playing an increasingly significant role in molding the views of others and in defining the agenda. Moreover, the speed of information dissemination and the global scope of coverage

means that government officials, already suffering from insufficient time to integrate and analyze information, are further pressured for quick responses and actions as well as being quickly second-guessed. States are losing their ability to set and control the agenda to bring to successful fruition efforts at preventing and containing proliferation threats.

Finally, the tenor of the discussion about nonproliferation issues has become increasingly unproductive. States seem to be promoting indecision by staking out positions they know will prevent a consensus from emerging. Whether it is Egypt's hard-line position on a resolution dealing with the Israeli nuclear capabilities and a Middle East nuclear-weapon-free zone, or the unwillingness of the United States and the other permanent members of the UN Security Council (P-5) to find a way to discuss nuclear disarmament in a multilateral forum, the bottom line is intransigence. In addition, the news media tends to polarize discussions. Reaching a compromise becomes much harder in this context, especially when pressure mounts for taking action and diplomacy becomes public knowledge very quickly.

WILL THE NONPROLIFERATION REGIME MEET FUTURE CHALLENGES?

Will the progress made on various nonproliferation regimes in the early 1990s be sustainable, or will the regimes crumble? If they muddle through, will belief and trust in them have been so undermined that they are eventually discarded? Answers to these questions revolve around how states recognize the implications of the various contextual trends described and respond to several existing proliferation challenges and unresolved issues.

Current Critical Proliferation Challenges

Nonproliferation efforts face significant challenges with the situations in North Korea and Iraq. In both cases, states have violated obligations they undertook as parties to nonproliferation treaties, and in both cases, they have succeeded in

delaying full compliance with the normative and legal aspects of these obligations. In each case, the international community has failed to show resilience or intensity of concern beyond rhetorical statements. If these two countries are permitted to have nuclear, chemical, biological, and missile capabilities, what lesson will other states draw from this situation? And, what capabilities will other states seek if they must confront the threats emerging from Iraq and North Korea? The ways in which these two situations are addressed will be at the crux of whether countries continue to perceive the NPT, the CWC, and the BWC as being in their best interests.

Another critical issue is how the nuclear weapon states, especially Russia and the United States, discuss and perceive their inventories of nuclear weapons. Even as progress in strategic arms control continues, the nuclear weapon states need to be truly committed to their NPT Article VI obligations. Only the nuclear weapon states can demonstrate their intent to lessen the role of nuclear weapons and delegitimize their value. Without such activities, not only is the underlying agreement of the NPT threatened, but India and Pakistan (and others?) are also provided justifications for going down their nuclear paths.

A third issue is BW: though it has long been ignored as unusable and therefore not a threat, changes in technology and motivations may combine to make this type of weaponry a more threatening concern than nuclear weapons. Yet we have an ineffective treaty that many would argue has substantial compliance problems and to which many key states are not even party. Meanwhile, the technical base of biological weapons is rapidly evolving and increasingly available, making BW attractive to terrorists and states with concerns about redressing asymmetries in power. The dual-use nature of BW technology also makes it hard to develop adequate transparency, given the sensitivities of the biotechnology industry to commercial proprietary information. Without more attention, efforts to strengthen the BWC are probably doomed; without more concern about noncompliance regarding the BWC now, efforts to limit the future use of BW are also probably

doomed to fail. An effective use of BW that is met with weak international response will open the proliferation Pandora's box.

Future Nonproliferation Challenges

As we look to the future, two other issues emerge as substantial challenges. First, what will be the role of the United Nations? Will the secretary-general be a key player in monitoring nonproliferation progress? Will the Security Council fulfill its responsibilities to address nuclear, chemical, and biological proliferation threats? Will the Security Council again be as effective as it was initially with Iraq, or will it be stymied by the insufficient commitments and differing agendas of its permanent members? If not the United Nations, then what other groups or methods will be developed to respond to future threats?

Second, new threats have surfaced that are not addressed by any one treaty or regime: WMD terrorism, and infowarfare. States and subnational groups may find both attractive, and yet we are just beginning to develop adequate national, much less international, responses and consequence-management capabilities. Much more needs to be done, sooner rather than later, if we are to avoid a major catastrophe. But given the state of affairs of the current nonproliferation agenda, is it realistic to think much will happen on the international level to address these new threats?

The Way Forward

With the Cold War behind us, we have an opportunity to transition from relying almost entirely on arms for a state's national security to relying on arms control to reduce or eliminate many threats. In the early 1990s, many thought we had entered an era wherein entrusting part of our security to arms control and nonproliferation appeared to make excellent sense: the political context encouraged high expectations for continued progress in nonproliferation activities. Arms control helped reduce the threat of military conflict, it was cost effective, and it set the stage for additional arms control.

All this changed by the end of the decade, when several issues developed into serious challenges to the viability of the nonproliferation regimes. This crisis in nonproliferation will take time to address, both to recognize problems in the regimes and to develop lasting ways of dealing with them. It will also require policymakers to be patient, consistent, and politically committed to nonproliferation, rather than unilateral military force. Given the uncertainty of the new world order, old approaches that rely on military capabilities will not be quickly discarded, but also may not be very effective against the new emerging transnational threats. Each challenge to the nonproliferation regimes will require its own tailor-made response. But at the core of every successful nonproliferation effort will have to be not only US leadership, but also a broad international political commitment to take the necessary actions and expend the needed resources.

Is there a common commitment to nonproliferation? The usual assumption is that, even if the treaty regime might not function as smoothly as it could, there is an international norm against nuclear, chemical, and biological weapons proliferation. Looking at the record of some states, however, makes one doubt the existence of such a norm: the rhetoric appears hollow, even in the nuclear arena. In addition, states that accepted nonproliferation agreements because it was in their own interest may reconsider as nonproliferation efforts appear ineffective. The possibility increases substantially that states will seek their own means to protect themselves, rejecting international norms and legal obligations against weapons of mass destruction. If this were to happen, the nonproliferation regimes would collapse, leaving states without an international nonproliferation framework, yet still struggling with dangerous WMD arms races and proliferation threats.

THE FUTURE OF THE NON-PROLIFERATION TREATY

by Tariq Rauf

The Treaty on the Non-Proliferation of Nuclear Weapons, signed on July 1, 1968, remains the bedrock of the post-World War II global non-proliferation regime. With 187 states parties, this treaty is the most widely adhered to and the most successful multilateral arms control agreement in history. Today, only four states remain non-parties: Cuba, India, Israel, and Pakistan.

Negotiated during 1965-1968, the NPT reflected the political compromises of the day. At the time, the Treaty was directed principally at the advanced industrial states with nuclear research and production capabilities, such as Germany, Italy, Japan, the Netherlands, and Sweden, among others. Given the inherently discriminatory nature of the Treaty—i.e., that the nuclear weapon states (NWS) were not formally obligated to dismantle and destroy their weapon capabilities within a certain time period—the advanced industrial non-nuclear weapon states (NNWS) were not prepared to agree to a nonproliferation instrument of indefinite duration. Consequently, NPT Article X.2 provided for an initial period of 25 years, following which the states parties would convene a special conference to decide upon the future continuation in force of the Treaty.

Consequently, the NPT Review and Extension Conference (NPTREC) was convened at the United Nations in New York, from April 17-May 12, 1995. On May 11, 174 states parties gave the Treaty an indefinite duration by agreeing “without a vote” to a package of inter-linked decisions. Decision 1, on “Strengthening the Review Process for the Treaty,” elaborated a framework for an enhanced and more substantive process to facilitate a full and balanced review of the implementation of the NPT and to forward recommendations on future steps to the quinquennial NPT Review Conferences. Decision 2, on “Principles and Objectives for Nuclear Non-Proliferation and Disarmament,” set out substantive guidelines and indicative targets

designed to promote greater accountability regarding full implementation of the Treaty in all its aspects.

In addition, a Resolution on the Middle East was also adopted that *inter alia* endorsed the ongoing peace process and called upon all states in the region, among other measures, to accede to the NPT and to establish an effectively verifiable zone free of weapons of mass destruction and their delivery systems. The Middle East Resolution, originally forwarded by Egypt on behalf of 14 Arab states adherents to the NPT, was eventually co-sponsored by the three depositaries (Russian Federation, United States, and United Kingdom), thus elevating its status and providing a mechanism enabling the Arab states to support indefinite extension.

CHALLENGES TO THE NPT

The NPT is presently under threat on several fronts:

- Nuclear tests by India and Pakistan have challenged the international nonproliferation norm established by the Treaty, and the international community remains at a loss over how to categorize and deal with these two states: as non-nuclear weapon states not party to the NPT; nuclear weapon states not party to the Treaty; or threshold nuclear weapon states? Similar concerns also apply to Israel.
- Compliance with the safeguards obligations and overall intent regarding the Treaty by two states—the DPRK and Iraq—remain in question.
- Nuclear disarmament obligations of the nuclear weapon states remain unfulfilled, with bleak prospects for further reductions in the near term, despite nuclear arms reductions agreed bilaterally between the United States and the Russian Federation and unilateral cuts

by these two NWS and by France and the United Kingdom.

- Cooperation in the peaceful uses of nuclear energy continues to be constrained by some members of the Nuclear Suppliers Group who have concerns about the intent of certain states, notably efforts by the United States to deny Iran access to civilian nuclear technology.
- Many non-nuclear weapon states believe that the strengthened review process for the Treaty is being undermined, principally by the nuclear weapon states.

SUBSTANTIVE ISSUES FOR THE NPT

Universality

How should the question of universality of the Treaty be addressed? Only four states remain outside the NPT, but the focus continues to be on India, Israel, and Pakistan, which operate unsafeguarded nuclear facilities capable of producing fissile material that could be used to make nuclear explosives. The nuclear tests by India and Pakistan, and their overt declaration of being NWS, have generated concerns over a heightened possibility of a nuclear arms race, and even nuclear war, breaking out in the sub-continent. In the Middle East, the United States and other Western states continue to oppose bringing pressure upon Israel to join the Treaty, in the absence of a comprehensive regional peace arrangement.

Under current circumstances these three states are unlikely to accede to the NPT through the route taken by South Africa (dismantling their nuclear explosive capabilities and then joining the Treaty), while the wording of the Treaty itself precludes them joining it as nuclear weapon states. Selective emphasis on promoting universality epitomizes Western “hypocrisy” in nonproliferation strategies: on the one hand, the UN Security Council calls upon India and Pakistan to renounce unconditionally their nuclear and missile capabilities without requiring a regional peace settlement; on the other hand, key Western states remain unwilling to bring pressure upon Israel to

join the Treaty even though it remains the only country in its region outside the NPT.

Nuclear Nonproliferation

The core issue in this context is compliance with the Treaty, particularly Articles I and II, with respect to four sets of issues. The most prominent of these are alleged breaches of Article II of the Treaty by NNWS through actions designed to facilitate the production of nuclear explosive devices. In particular, activities by the DPRK and Iraq have crossed a threshold of non-compliance that many believe has not been adequately addressed. According to the United States, Iran may be a similar case, although the IAEA has no such evidence in this regard. A second, more controversial set of issues is the legitimacy of storing or stationing nuclear weapons belonging to one of the five NWS on the territory of a NNWS, as well as military exercises with nuclear missions involving personnel from NNWS. Third, India and Pakistan’s nuclear tests have directly challenged the NPT’s nonproliferation norm. Finally, there is the question of whether the NWS have breached their nuclear disarmament commitments under Article VI of the Treaty through vertical proliferation and lack of meaningful progress in achieving the elimination of their nuclear weapons.

Nuclear Disarmament

Disagreements over whether progress toward the goal of nuclear disarmament has been achieved have been a perennial feature of past NPT review meetings. The significance of these disputes derives from several factors. One is that the NPT is the only legal document in which NWS have committed themselves to “pursuing negotiations in good faith on effective measures relating to ... nuclear disarmament.” Its significance in this regard was highlighted by the use made of it by the Judges of the International Court of Justice in 1996 in delivering their advisory opinion on nuclear weapons, as they argued that this committed the NWS not just to negotiate on nuclear disarmament, but also to conclude definitive agreements. Thus the NPT is seen as a

valuable context within which NNWS can pressure NWS for more action on nuclear disarmament, as it is the only legally binding commitment accepted by all five NWS regarding nuclear disarmament.

A second factor is that implicit in the NPT text is the proposition that the possession of nuclear weapons by the NWS is not a permanent situation, and that the NPT is both a nuclear disarmament and a nuclear nonproliferation treaty, with the latter being a contributing condition for achievement of the former, and vice versa. Thus, from both political and security perspectives, substantively addressing nuclear disarmament is regarded as an important method of strengthening both the NPT and the nonproliferation regime.

Nevertheless, the NWS have systematically and determinedly opposed all attempts since the 1995 NPTREC to be involved in a substantive engagement on nuclear disarmament issues in any multilateral forum, be it the NPT review process, the Conference on Disarmament (CD), the UN First Committee, or even NATO councils. In NPT review fora, the NWS have accepted “talking” sessions on nuclear disarmament, but they have continued to reject any and all proposed language calling upon them to implement existing bilateral treaties, negotiate new reductions, or take unilateral measures toward nuclear disarmament.

The Comprehensive Test Ban Treaty

The 1995 “principles and objectives” specified a “programme of action” containing three specific measures: an immediate objective, the completion of negotiations on a CTBT by the end of 1996; a follow-on objective, the “early conclusion of negotiations on a non-discriminatory and universally applicable convention banning the production of fissile material for nuclear weapons or other nuclear devices” (Fissile Material Cut-Off Treaty, or FMCT); and the “determined pursuit by the nuclear-weapon States of systematic and progressive efforts to reduce nuclear weapons globally.”

A CTBT opened for signature in September 1996, but with an entry-into-force provision that

made it dependent upon ratification by all 44 states operating nuclear research reactors. In the event that these ratifications were not forthcoming three years after its opening for signature, the treaty specified that a political conference of those states that have ratified it would be held to consider how to expedite entry into force, and would be repeated annually thereafter. This conference was held in Vienna on October 6-8, 1999, and was attended by 92 ratifying and signatory states. At the time of writing, the CTBT had been signed by 154 states and ratified by 51 signatory states—and 41 of the 44 nuclear-capable states had signed and 26 had ratified. Three of the 44 still had not signed: the DPRK, India, and Pakistan. Only two NWS, France and the United Kingdom, had ratified the treaty. The US Senate dealt a singular blow to the CTBT when it voted down the Treaty on October 13, 1999. President Clinton then committed the United States to not resuming testing, called upon other states not to test either, and pledged to strengthen efforts to bring about the entry into force of the CTBT. This setback, however, has significantly raised the probability of a resumption of nuclear testing by Russia, China, and India. Thus, the CTBT’s entry into force will inevitably become an important controversial issue at the 2000 Review Conference.

Fissile Material Cut-Off Treaty

After two years of deadlock in the Conference on Disarmament over whether negotiations on an FMCT and discussions on a future program for disarmament should proceed in parallel, the South Asian tests prompted establishment last August of an ad hoc committee on an FMCT based on the mandate contained in the March 1995 report of the Special Coordinator. The substantive issue that had been preventing progress on this matter was whether existing stocks of nuclear materials should be covered by this treaty, in addition to its prohibition on new production. The ad hoc committee on an FMCT was not re-established during the 1999 session of the CD due to disagreements over parallel negotiations on nuclear disarmament and preventing weaponization of space. Given the opposition of the United States

and the other NWS to even discussing nuclear disarmament at the CD, and given US plans to proceed with testing and deploying missile defenses, it is very unlikely that negotiations on an FMCT can commence at next year's session of the CD (due to the linkages established by the non-aligned group and by China, respectively). Therefore, this item from the 1995 "principles and objectives" program of action will most likely also fail to achieve substantial progress by the time the 2000 Review Conference opens.

The Conference on Disarmament Agenda

A related development is the increasing frustration felt by representatives of many NNWS, across political groupings, due to the lack of any new agreed international vision for nuclear disarmament. The so-called "decadology," or agenda for the work of the CD, had its origins in the 1950s. Given the vastly different international environment of the 1990s, there has been an increasing perception that this needs to be revisited and a new agenda created to reflect contemporary disarmament realities, perspectives, and possibilities. The deadlock has continued at the CD over whether or not to discuss nuclear disarmament, and this has prevented progress being made on any other issues, including an FMCT, security assurances, or prevention of an arms race in outer space.

This was evident in the June 9, 1998 announcement of an eight-nation initiative "Towards a Nuclear-Weapon-Free World: The Need for a New Agenda." This effort was the product of eight states from all the main UN caucus groups, which later sponsored Resolution L.48 at the First Committee and Resolution 53/77Y in the UN General Assembly. Most notable was that 12 NATO states abstained rather than voting "no" as urged by the three Western NWS, thus hinting at a major change in their nuclear policy. A revised resolution will be presented at this year's First Committee, making it even more difficult for many moderate Western states to oppose it or to abstain from supporting it. The New Agenda Coalition will undoubtedly

develop this issue further at the 2000 NPT Review Conference.

SALVAGING THE NPT REVIEW PROCESS

With the strengthened review process now being reduced to a virtual dead letter, what might be done at the 2000 Review Conference, with a view to salvaging some vestiges of a strengthened review? The only practical way forward seems to be one based on innovative yet practical initiatives—i.e., to consider qualitatively new modalities to promote the review and implementation of the Treaty, in accordance with the NPTREC package of decisions and associated resolution.

In 1995, a small number of states that were committed to the continuing viability of the NPT were successful in establishing unprecedented new parameters that were captured in NPTREC Decisions 1 and 2. A similar effort is now required to ensure "permanence with accountability" of the NPT—an effort that once again explores unprecedented measures and stretches the parameters of the debate. These might include, for example, redefining the consensus rule, revising the structure of the review process, refocusing the role of the depositaries, and augmenting the role of the chairs.

Furthermore, the 2000 Review Conference could consider additional documents clarifying or supplementing the interpretation of the 1995 decisions on a "strengthened review process" and on "principles and objectives," as well as of the resolution on the Middle East.

Developing New Flexibility in Political Groupings

Even though the Cold War has ended and old ideological divisions have been transformed, traditional regional groupings endure on international security issues, despite the fact that they fail to reflect the current status of the international community. Tendencies toward rigidity and confrontation emanating from the

obsolete Cold War-driven group structure are unnecessary and potentially open to change. Interest-based coalitions could thus be formed on the basis of shared goals, with participation of the great majority of NPT states from across traditional regional groupings, to press for structural innovations as suggested above.

CHALLENGES TO THE CHEMICAL WEAPONS CONVENTION

by Jonathan B. Tucker

The 1993 Chemical Weapons Convention requires member states to destroy existing stocks of chemical weapons (CW) within ten years and bans their future development, production, stockpiling, transfer, and use. Incorporating extensive verification measures, the CWC is the first treaty to ban an entire category of weapons of mass destruction under strict international inspection. After two decades of negotiation and preparation, the Convention entered into force on April 29, 1997; it currently has more than 125 parties, including the United States, Russia, China, Iran, Japan, and all members of the European Union. Today the CWC is in a critical phase of implementation that could either strengthen or significantly weaken the CW nonproliferation regime.

A current problem with the CWC is its lack of universality. Several known or suspected chemical weapons possessors remain outside the treaty regime, including Egypt, Israel, Libya, North Korea, Syria, and Yugoslavia. Taiwan's status is also problematic, because it is not recognized by the United Nations and hence is unable to become a state party to the CWC. Even without universal adherence, however, the Convention should help to slow and even reverse chemical proliferation by isolating the relatively small number of countries that refuse to join, limiting their access to precursor chemicals, and bringing international political and economic pressures to bear if these states maintain their CW programs. Further, although disarmament treaties are binding only on sovereign states and are not designed to address the problem of sub-state terrorism, the CWC embodies international norms that are accepted in practice by at least some terrorists. Were chemical weapons to proliferate widely among states, their acquisition and use by terrorists would become much more likely.

STATUS OF CWC IMPLEMENTATION

The international agency established in The Hague, the Netherlands, to oversee CWC implementation is known as the Organization for the Prohibition of Chemical Weapons (OPCW). It has a staff of about 500, including some 200 inspectors trained and equipped to inspect military and industry facilities in member states throughout the world. By the end of March 1999, OPCW inspection teams had conducted 439 inspections in 30 countries. For an international organization its size, the OPCW has a modest budget of about \$70 million a year, roughly equivalent to the cost of two modern fighter jets.

Several CWC member states—including China, France, India, Japan, Russia, South Korea, the United Kingdom, and the United States—have declared chemical stockpiles and/or production facilities and are proceeding to eliminate them. One benefit of the treaty is that it has encouraged countries that previously denied possession of chemical weapons, such as India and South Korea, to acknowledge their CW programs as the first step in treaty compliance. The level of openness is not consistent, however. For example, Iran's declaration admits that it once possessed chemical weapons but denies a current CW capability.

WATERING DOWN THE REGIME

Several decisions by the Preparatory Commission that met to develop detailed verification procedures prior to the CWC's entry into force, and more recently by the Conference of States Parties (the main decision-making body of the OPCW), have tended to diminish the effectiveness of the CWC verification regime. These decisions have upset the delicate balance in the treaty between the rights of the OPCW inspectors and the rights of the inspected state,

creating loopholes for potential cheaters. For example, although the scope of the CWC's basic prohibition covers any toxic chemical intended for use as a weapon, the Conference of States Parties has ruled that analytical devices employed by OPCW inspectors may be programmed to detect only the limited number of chemicals listed in the treaty and their degradation products. As a result, a determined violator might produce an unlisted toxic chemical in a bid to circumvent the CWC.

Other rules approved by the Conference of States Parties enable member states to confiscate and retain any piece of analytical equipment that host-country officials believe has not been satisfactorily cleared of proprietary data unrelated to treaty compliance, and to review inspectors' notebooks. According to CW analyst Amy Smithson, "These invented rights ... offer [CWC] members means to evade detection by expropriating evidence that could document their own noncompliance." Further, a widespread tendency by member states to overclassify the data contained in declarations and inspection reports has complicated the work of the OPCW inspectorate and made it nearly impossible for individual countries to reach their own compliance judgments. The US delegation should take a more active role in resisting such efforts to water down the regime.

PROBLEMS OF RUSSIAN CW DESTRUCTION

The Russian Federation, which possesses the world's largest CW stockpile (totaling some 41,000 metric tons) is in the throes of a serious financial crisis and lacks the funds needed to meet its CWC obligations. Russia ratified the treaty in December 1997, and made its initial declaration within the required 30-day period. By August 1998, the OPCW had conducted initial inspections of all 24 former CW production facilities and seven storage facilities that Moscow had declared. Nevertheless, Russia faces daunting financial, political, and environmental challenges in destroying its vast chemical stockpile.

According to the timetable specified in the CWC, Russia must have eliminated one percent of its chemical weapons (about 400 tons) by the end of April 2000; 20 percent by 2002, and all 40,000 tons by 2007. Given the severe financial crisis in Russia today, however, little government money is available for CW destruction, and foreign assistance remains limited. Russian experts believe that it will be impossible for Russia to meet the CWC deadlines, and that it will take at least 25 to 30 years to eliminate the entire stockpile. For this reason, some members of the Russian State Duma (lower house of parliament) have urged the Russian government to withdraw from the treaty.

For the past several years, US government assistance to the Russian chemical demilitarization effort has focused on the design and construction of a pilot nerve-agent destruction facility at Shchuchie, one of seven CW storage sites in Russia. This project was intended to "jump-start" the entire destruction program. In October 1999, however, the US Congress voted to eliminate all \$125 million slated for the Shchuchie facility in the fiscal year 2000 Defense Authorization Bill. If the deleted funding is not restored, the Russians may have no choice but to withdraw from the CWC, dealing a serious and perhaps fatal blow to the CW nonproliferation regime. Should Congress fail to act, an alternative means of financing the Russian CW destruction program would be for Western creditors to grant partial forgiveness of Moscow's massive foreign debt, with the stipulation that comparable funds be allocated for the elimination of chemical weapons.

THE UNITED STATES: SETTING A BAD EXAMPLE

The United States was a leader in negotiating the CWC but has set a poor example during its implementation. To date, the United States remains in "technical violation" of the treaty because of a failure to submit declarations for chemical industry facilities and to host OPCW inspections at these sites. US industry declarations have been delayed by congressional foot-dragging in passing the implementing legislation needed to

apply the CWC to domestic chemical companies, and by a dispute between the Departments of State and Commerce over which agency should have the lead role in coordinating industry declarations and inspections.

With US chemical companies yet to receive their first OPCW inspections, economic competitors that have met their CWC obligations, such as Germany and Japan, are increasingly irritated by what they see as an unfair commercial advantage accruing to the US industry. Yet because the Clinton administration has made no effort to expedite the promulgation of the necessary regulations, the U.S. industry declarations are likely to trickle in over a period of several months.

With respect to OPCW inspections at US military sites, the Department of Defense has been criticized for narrow, legalistic, and at times confrontational behavior on the part of inspector escorts, and for failing to deliver equipment and training courses promised to the OPCW. Even more troubling, the US implementing legislation passed in October 1998 contains three unilateral exemptions and restrictions: (1) a ban on allowing OPCW inspectors to remove samples collected at US chemical sites for analysis at certified laboratories outside US territory; (2) a waiver enabling a future US president to block a CWC challenge inspection on national security grounds; and (3) a provision limiting the scope of US chemical industry sites subject to inspection. If allowed to stand, these unilateral provisions will create loopholes that could be exploited by would-be cheaters, undermining the CWC verification regime. Congress should pass additional legislation repealing such exemptions at the earliest opportunity. Until Washington comes into full technical compliance with the CWC, it will be in a weak position to criticize more serious treaty violations by other states.

THE PROBLEM OF ENFORCEMENT

Closely related to CWC verification is the problem of enforcement. Although all arms control treaties rely on the self-interest of the parties and the pressure of world public opinion to

restrain would-be violators, moral restraints by themselves may not be sufficient. Without a credible threat of economic or even military sanctions in response to a persistent pattern of violations, the CWC will never play a truly effective role in containing and reversing the spread of chemical weapons. Iraq's resort to chemical warfare during the Iran-Iraq War of the 1980s in blatant violation of the 1925 Geneva Protocol, and its systematic defiance of the United Nations Special Commission during the 1990s, indicate a continual need to maintain, institutionalize, and enforce nonproliferation regimes if these legal instruments are to retain their effectiveness.

BIOLOGICAL WEAPONS: NEW CHALLENGES, NEW STRATEGIES?

by Brad Roberts

For decades, the effort to combat the problem of biological weapons (BW) has been at the margins of the global nonproliferation and disarmament effort. This reflected a widespread notion that the problem they posed was not particularly severe, as well as confidence that the strategy in place to address the problem was, by and large, effective. Looking ahead, we should not be nearly so confident in either our understanding of the problem or the effectiveness of the current solution. The cornerstone of the effort to combat biological weapons remains the global treaty regime, and strengthening this regime remains essential. But the addition of a monitoring protocol to the regime, as valuable as that would be, will carry us only a limited distance towards the ultimate goal of a fully effective global ban on biological weapons.

BACKGROUND

Negotiations to eliminate biological (and chemical) weapons date back a century, to the Hague conferences. In 1925, negotiators agreed to a ban on the use, but not possession, of chemical and biological weapons (CBW) in the context of the Geneva Protocol (for the Prohibition of the Use in War of Asphyxiating, Poisonous, and Other Gases and of Bacteriological Methods of Warfare). This protocol remains in force today, with over 130 signatories. A more comprehensive agreement was under negotiation at the failed Disarmament Conference in the 1930s. This was also a time when most of the major powers prepared for the possible employment of biological weapons. Both Japan and the Soviet Union actually engaged in such attacks.

The Cold War saw a continuation of offensive preparations by some, especially the Soviet Union and the United States. Under the auspices of the Eighteen-Nation Disarmament Conference and its

successor entities, diplomats returned to negotiations aimed at banning such weapons. Following conclusion of the NPT in 1968, the UN disarmament community and the arms control community more broadly turned again to the CBW topic. At that time, a long-standing stalemate was broken with the decision to separate the problems of chemical and biological weapons, in the belief that the biological problem was more susceptible to rapid negotiation. Facilitated significantly by a Nixon administration decision that the United States should disarm unilaterally in this area, a bilateral agreement with the Soviet Union was rapidly concluded, which was adopted as the framework for the multilateral Biological and Toxin Weapons Convention that entered into force in 1975.

Already at the first review conference in 1980, doubts were expressed about the efficacy of the regime. News of the 1979 accidental release of anthrax at Sverdlovsk reached the conference and the media, fueling reservations about Soviet compliance. Those reservations did not ease even with the advent of Mikhail Gorbachev, and it was revealed after the USSR's collapse that a massive program of BWC cheating had in fact been conducted throughout the life of the treaty—indeed, a significant component of the Soviet BW program (Biopreparat) began precisely with Moscow's signature of the treaty. Throughout the 1980s and into the 1990s, there were also rising concerns about the proliferation of biological weapons. At the treaty's entry into force, it was generally assumed that only one or two countries other than the superpowers had developed biological weapons. Today, it is often reported that a dozen or more countries possess biological weapons, or are actively seeking to acquire them.

The Persian Gulf War brought matters to a political head. The near-brush with Iraq's

unconventional weapons led to a major international effort to strengthen the global treaty regime by expanding the authority of the IAEA, bringing to rapid conclusion negotiation of the CWC, and by strengthening the BWC through the addition of a monitoring protocol. An ad hoc group of states parties to the BWC was thus formed and charged with elaborating a draft protocol for consideration by states parties, work in which it is currently engaged.

At the end of the decade, we can observe a further evolution in the nature of the BW problem. There is rising concern about the impact of technological change on the problem, as the diffusion of advanced technologies empowers new BW actors, creates new BW possibilities, and undermines the viability of traditional arms control approaches. There is also rising concern about non-state actors, as the Aum Shinrikyo cult in Japan and a host of militia-related activities in the United States have signaled rising terrorist interest in BW.

STRENGTHENING THE REGIME

The effort to strengthen the regime has encountered a number of obstacles. Negotiation of the provisions of the protocol has fueled serious disputes about (1) the degree to which verification measures can detect militarily significant cheating in a timely fashion and with a high enough degree of certainty to deter proscribed activities; (2) the degree to which effective verification will require a measure of openness in industry that will lead to the loss of proprietary commercial information, especially in the rapidly growing and increasingly vital biotechnologies; and (3) how to balance the Article III obligation not to assist proliferators with the Article X obligation to promote the peaceful use and exchange of the technologies of concern to the convention. These disputes reflect the relatively low measure of consensus among the various domestic and international constituencies involved in the BWC process, and the failure of process leaders to find the basis for consensus. Despite the presidential commitment by Bill

Clinton to push for rapid conclusion, the process drags on.

Sooner or later, however, conclusion of the protocol appears certain. It will then require signature by states parties, as well as ratification, as it will entail new obligations. This process is likely to be delayed and fractious, especially if the support of commercial interests has not been won in advance. US ratification is by no means certain if the current constellation of arms control forces remains. At best, a two-tiered system, in which some states are signed up to accept intrusive inspections and others are not, will prevail for a long time.

Whatever the ultimate success of the effort to add a monitoring and compliance protocol, we should understand that this alone will not turn the BWC into a fully effective global ban on biological weapons. The strengthening of the regime requires other steps as well, including full implementation of the measures agreed at various review conferences (such as confidence-building measures) as well as a press to increase global adherence from the current 140-plus to the full international community.

More importantly, however, regime supporters must ensure that the regime comes to terms with extant problems of noncompliance. Iraq remains a glaring example of the failure to achieve BWC compliance by a renegade state, even despite the expressed will of the UN Security Council to achieve that end. Russia's ongoing BW activities are a growing source of international concern, and a major irritant to the long-term viability of the regime. If Russia cannot be brought back into compliance with the regime despite the express will of its elected leadership, why should others follow suit? China, too, is understood not to be in compliance with its BWC treaty obligations. Dealing with flagrant violations is at least as important to the long-term viability of the regime as adding monitoring provisions, especially as violators, such as Iraq, have proven so astute at working around monitoring efforts.

NOT BY ARMS CONTROL ALONE

Although few in the arms control community would claim that arms control is a panacea, arms controllers must be particularly direct on this point when it comes to biological weapons. Arms control is essential to the global effort to rid the world of biological weapons, as an embodiment of the norm against this mode of warfare and as an institution to give that norm expression. But if arms control is to succeed, it must be as part of a strategy integrating various elements addressing the multifaceted components of the problem. These include:

- A UN Security Council willing and able to fulfill its responsibilities as an enforcer of the global arms control regime and, more generally, as a guarantor of the security of UN member states.
 - The effective functioning of the other components of the arms control regime, particularly the CWC, the NPT, and the various regional mechanisms that have been agreed upon. Synergistic effects are essential. States must perceive benefits in these arms control initiatives, with success in one area spilling over into another. For example, successful CWC inspections and/or resolution of nuclear safeguards questions in the DPRK will play a critical role in states' willingness to permit greater transparency and access for BWC enhanced compliance measures. Such successes both build confidence in multilateral treaties and reduce security concerns.
 - An effective export licensing regime among the exporters of materials and technologies sensitive from the point of view of the BWC. In this regard, the Australia Group (AG) is a valuable forum where states engaged in trade in technologies and materials sensitive from the point of view of CBW proliferation can meet to share information and coordinate their licensing procedures and policies. The AG must not be sacrificed in the endgame of the BWC negotiations to try to buy consensus on the monitoring protocol.
- Military counters (passive defenses, active defenses, counterforce attack capabilities, etc.) for those who face BW threats. Without them, BW-armed adversaries may use BW to secure aggression (or in ways that generate a nuclear response), with disastrous consequences for the treaty regime. Such counters are particularly important for security guarantors; without them, biological weapons could be used to call into question the credibility of those guarantees and of a world based on WMD restraint.
 - Counterterrorism capabilities encompassing prevention, deterrence, and consequence management. Without these, it is possible that biological weapons could become a customary mode of violence for non-state actors.

THE MISSILE TECHNOLOGY CONTROL REGIME

by Timothy V. McCarthy

It is no small irony that just two weeks after the Missile Technology Control Regime (MTCR) was signed in April 1987, Iraq conducted the first successful flight test of its extended-range ballistic missile, the Al-Hussein. The Iraqi missile program—heavily dependent on foreign procurement and, hence, vulnerable to a supply cut-off—represented just the type of proliferation activity the MTCR was designed to obstruct or terminate. In the event, Iraq did develop the Al-Hussein and several other longer-range missile systems, but Baghdad was ultimately unable to fully realize its missile ambitions, in part due to the MTCR. The Iraqi case exemplifies the mixed results achieved through the MTCR's export denial and related efforts.

In the intervening years since the Al-Hussein test and the MTCR signing, the scope and perhaps even the pace of missile proliferation have grown. Fueled to a greater or lesser extent by foreign technology acquisition, programs have advanced in India, North Korea, Iran, and Pakistan, to name just a few. Acquisition of increasingly capable and longer-range missile systems has exacerbated already tenuous military-strategic environments in the Middle East, South Asia, and Northeast Asia.

Therefore, the debatable question is *not* if there is indeed a missile proliferation “problem.” Rather, the key issues are first, the extent to which MTCR restrictions (or diplomatic efforts) have prevented or delayed even greater technical advances than would otherwise be the case, and second, whether the MTCR is well-positioned to address current and future missile threats. In that regard, the MTCR now sits on the horns of a dilemma: it is increasingly under fire for its perceived failure to stem the missile proliferation tide at the same time it is admonished for aggressive and discriminatory technology denial.

One obvious difference between the MTCR and the other major nonproliferation regimes is its

relatively informal nature. Unlike a treaty-based regime, the MTCR is, at its core, simply an association of states seeking to coordinate their export licensing practices relevant to missile technology. In this sense, it acts as a supplier cartel, with all the inherent advantages and problems associated with that type of arrangement. It is this lack of a more formal international legal standing that, to a large extent, drives both praise and criticism of the regime.

THREATS

There are a number of issues that in the short to medium term may jeopardize MTCR objectives, weaken established missile nonproliferation norms, or even undermine the regime altogether.

- **Supply:** Continued sales of both Category I and Category II technologies—by members, non-members, and adherents—threaten to undermine the key regime objective: to make it more difficult to develop delivery means for nuclear, biological, and chemical (NBC) weapons. Such sales enfeeble the “no undercut policy,” which dictates that one member's export denial must be met by similar denials from other members. In addition, divergent interpretations of the “space program” clause found in the Guidelines have led, and may continue to lead, to sensitive exports to programs of potential concern. An example of this type of case is Russian propulsion technology exports to the Indian Space Research Organization.
- **Expanding Membership and Diffusion of Goals and Standards:** The MTCR lost focus as membership expanded over the last six years. As initially conceived, the regime was not intended to facilitate access to space technology or to reward governments for close diplomatic relationships. The regime's expansion—while legitimizing MTCR object-

ives as an international nonproliferation norm—required significant erosion of entry standards, leading to the inclusion of states lacking viable institutions and/or the will to control missile exports. Critics cite Russian membership, in particular, as a textbook case where entry standards and core objectives were sacrificed on the altar of political expediencies not necessarily related to missile nonproliferation. Moreover, consensus is increasingly difficult to achieve as membership grows, especially on politically sensitive issues like the creation of enforcement procedures.

- **Discrimination:** Detractors argue that because the MTCR is meant primarily to serve founding member interests, it is inherently discriminatory, creating a two-tiered structure of missile “haves” and “have-nots.” This discrimination finds expression in, for example, the regime’s failure to explicitly include air defense systems (particularly anti-tactical ballistic missiles [ATBM]), its omission of controls on manned aircraft delivery systems, and demands that certain new members forego Category I offensive missile capabilities prior to joining. Similarly odious is the implicit position of several founding members that they will not support new and even ongoing space launch vehicle (SLV) programs. This stance limits the willingness of certain missile-capable states (India, for example) to seek membership or adhere to regime guidelines, and may ultimately lead some current members to view the regime as lacking legitimacy.
- **Missile Defenses:** Deployment of ATBM in Taiwan, development of an East Asian missile defense consortium, and unilateral modification or abrogation of the Anti-Ballistic Missile (ABM) Treaty are key issues on the missile proliferation horizon. While the impact of missile defense developments on the MTCR is difficult to predict, one possible response would be qualitative and quantitative increases in missile technology sales from China, in the former cases, and Russia, in the latter.

RESPONSES

While a number of options may be available to deal with the threats outlined above, in certain cases these approaches may be mutually exclusive. Further analysis of the risks, benefits, and implementation problems associated with each will be required to choose the best way forward.

- **Retrenchment:** The MTCR could consider returning to its roots as a relatively exclusive club of states whose sole purpose is to stop missile technology exports. At this point, of course, it would be extremely difficult to remove wayward members. Instead, retrenchment would set a high bar for new entry and strenuously avoid any expansion of objectives. Conceptually, the focus of the regime would be narrowed to just a few problem states and suppliers, such as North Korea. Retrenchment also takes into account the technical plateaus that many developing missile programs have reached. To move beyond these plateaus, technologies and equipment that fall unambiguously within MTCR guidelines are needed, and it is here that the restrictions will have their biggest—and intended—effect. In taking this step, the regime must be willing to cope with the political consequences that will inevitably arise from the decision. Those states that consider the regime discriminatory simply need not join, nor should they be provided inducements to do so.
- **Regime-Based Enforcement:** One way to increase MTCR viability is to establish, at least informally, a regime-based means to punish missile proliferation behavior. Arguably, unilateral sanctions have only a limited effect on the offending country. The MTCR should therefore begin serious negotiations on a broader sanctions policy, beginning with discussions of an enforcement trigger mechanism. This would involve a mandatory meeting if and when any member levies sanctions; the meeting would allow the sanctioning country to present its case and press other participants for additional re-

sponses. Additionally, the MTCR should seek to develop and standardize a “commercial enforcement” process. This would entail, for instance, a consistent policy of making prime contractors explicitly responsible for subcontractor behavior when the former is involved in space-related projects with a regime member. Here, Russian contractors participating in construction of the international space station would be responsible for companies within their supply network down to, for instance, the subsystem level.

grand bargain offering enhanced access to civilian space technology and participation in space projects in exchange for missile non-deployment or “no-sales” commitments. The regime would be formalized and, as such, would include a verification-inspection body with a mandate to develop and enforce safeguards over missile and space trade.

- **Expansion:** The MTCR could continue to seek new members and adherents to further internationalize the regime’s nonproliferation norms. This expansion should be prudent, but there should be no litmus test with respect to short-range ballistic missile capabilities or SLV programs. Moreover, as the only international body with a mandate to pursue missile nonproliferation, the regime should use its diplomatic weight to seek creative solutions to missile-related problems that extend beyond a narrow, export licensing focus. Members, as a group, might support nonproliferation initiatives such as missile non-deployment negotiations, ballistic-missile-free zones, or flight test bans.
- **Inclusion and Integration:** To more completely address the problem of NBC delivery systems, the MTCR might begin discussions on incorporating manned aircraft exports into the regime, and add specific language to the Guidelines dealing with air defense systems. One variant of this option would be to stabilize the missile offense-defense balance by incorporating ABM Treaty concepts into the Guidelines (for example, by explicitly including systems capable of strategic interception as a Category I item).
- **Treaty:** The MTCR could serve as the basis for an internationally negotiated treaty to deal with missile proliferation in general—including indigenous developments and deployments—instead of its current narrow focus on export issues. The treaty might entail an NPT-like

CHALLENGES POSED BY RUSSIA AND THE NIS TO EXISTING NONPROLIFERATION REGIMES

by Clay Moltz

The newly independent states (NIS) of the former Soviet Union, particularly Russia, inherited the world's largest stockpile of nuclear weapons, chemical weapons, fissile material, and weapons-related technology. However, their weak governments and ongoing financial problems have left them in a poor situation to deal with this inheritance. Newly privatized enterprises have also had significant financial incentives to subvert existing state export controls in search of hard currency and the external markets they need to survive. This combination of significant WMD capabilities and technologies and difficult economic circumstances in the NIS countries create some of the most dangerous threats to the viability of existing nonproliferation regimes. This situation has highlighted the unique set of problems raised by "declining" WMD powers: i.e., those that retain large quantities of WMD materials, technologies, and scientists, but possess greatly diminished capacities for maintaining control over them.

A related problem in the NIS is the difficulty faced by states that seek to join and implement international agreements for nonproliferation, but lack even the minimal financial resources necessary to do so. Several cash-poor governments have been unable even to become members of certain nonproliferation regimes due to the costs of membership (tens or hundreds of thousands of dollars per year). In other cases, such as Russia's implementation of START I and the Chemical Weapons Convention, governments are unable to meet required deadlines without significant assistance from abroad.

Russia and the NIS pose challenges to regimes including the NPT, the MTCR, the CWC, and the BWC.

- **NPT:** Setting aside serious difficulties in the materials protection, control, and accountability (MPC&A) field in several of the NIS countries (which contribute to smuggling and proliferation but are not directly relevant to treaty commitments), the biggest threat to the NPT consists of state-sanctioned Russian sales of nuclear technology, know-how, and materials. The deals that raise particular concern are those with India and Iran. In the former case, despite Russia's claims of legitimate "grandfathering" of the arrangement, the deal sets a precedent for possible future Russian attempts to subvert its NPT commitments not to transfer weapons-related technology and materials to states that lack full-scope nuclear safeguards. Russian negotiations with India over the possible sale of two nuclear submarines should be viewed as similar violations of existing Russian commitments, given the possible (albeit unlikely) Indian diversion of the fuel and technology to bomb uses. Russia's cooperation with Iran is formally compliant with the NPT, but raises serious practical concerns given the claims by many analysts that Iran is seeking to develop nuclear weapons. Other questions relate to Russia's Article VI (disarmament) commitments and to the action by the Ukrainian Rada (not accepted by the current president) calling for Ukraine to withdraw from the NPT as a non-nuclear weapon state in protest over US and NATO actions against Yugoslavia. Ukraine's possible missile cooperation with China and North Korea raises other NPT concerns, since this technology could be used to deliver nuclear weapons.

Other NPT-related issues include the following:

(1) START I and START II—Russia continues to represent a challenge to these treaties due to its continued reluctance to ratify START II and to implement the reductions it entails. The Russian Duma continues to blame political events (NATO expansion, the Kosovo situation) for its “inability” to ratify the treaty. The failure to implement START II has serious implications for Russia’s progress towards realizing its Article VI NPT commitments.

(2) Tactical Nuclear Weapons—Russia has begun to hedge on its 1991 commitments to remove from service its large force of tactical nuclear weapons. A recent Russian Security Council document even raised the possibility of the development of new, low-yield tactical nuclear weapons. Furthermore, there have apparently been serious discussions regarding the possible redeployment of tactical nuclear weapons in certain former Soviet republics, including Belarus. Russia has recently cited NATO expansion and the bombing of Yugoslavia as justifications for renewed Russian reliance on these weapons. Redeployment would send very negative signals in regards to Russia’s Article VI commitments and would cloud the atmosphere for further strategic reductions in the US-Russian context.

(3) No-First-Use Doctrine—Russia has rejected its commitment to the no-first-use of nuclear weapons. This reversal occurred in large part due to the decline in Russia’s conventional military forces. NATO expansion has also been cited by some Russian authorities (post facto) as a justification for this policy. While this is consistent with the current US government stance, it sends mixed signals to the international community regarding Russia’s Article VI commitments.

(4) MPC&A—The failure of Russia and other NIS countries to implement effective

nuclear MPC&A measures raises a serious challenge to these states’ NPT commitments. Specifically, by allowing nuclear materials to remain vulnerable to theft, the NIS countries are failing to implement their pledges on preventing the transfer of these materials to non-nuclear weapon states. New measures are needed both to implement near-term improvements at a large number of facilities (particularly in Russia) and to ensure their long-term sustainability.

- **MTCR:** Russian and Ukrainian design and construction enterprises are engaged in a number of deals that clearly violate Category I export restrictions. In Ukraine, these involve suspected deals with China, Libya, Iraq, and possibly North Korea, even though it is difficult to assign specific responsibility for what, in some cases, appear to have been visits by individual scientists and technicians. In Russia’s case, suspected deals have involved Iraq, Iran, India, and China. In each of these cases, Russia has claimed that it has not sanctioned these contacts and therefore cannot be held responsible for the purportedly illegal acts of its companies.
- **CWC:** The greatest threat posed to this regime is the apparent inability of Russia to implement its dismantlement commitments, due to a lack of adequate funding. Russia possesses the world’s largest stockpile of chemical agents (some 40,000 tons), and thus its widely anticipated failure to meet the CWC’s deadlines for implementation represents a serious challenge to this new regime.
- **BWC:** Russia’s continued unwillingness to open its biological weapons facilities to international inspectors poses a continuing challenge to the BWC. Due to claims by defectors (such as Ken Alibek) that BW research may be continuing at several of these facilities, there are significant unresolved questions about

Russia's commitment to implement the treaty fully. Statements by Russian officials, including General Lebed, that Russia has a need for biological weapons are also grounds for serious concern. Given the fluidity of the political scene in Russia, there is at least an outside chance that supporters of renewed BW activities might assume power in Russia during the next few years.

POLICY OPTIONS

Given the range of problems outlined above, what new policy initiatives might be undertaken to help reduce the threat that current developments in the NIS pose to a number of nonproliferation regimes?

Arms Control Measures

- (1) **The initiation of new, high-level discussions between the United States and Russia to facilitate near-term ratification of START II.** Progress in moving the treaty ahead merits immediate attention, even at the expense of compromises in certain provisions of the treaty (complete de-MIRVing, silo destruction, etc.). Greater flexibility on national missile defense (NMD) and theater missile defense (TMD) systems should be incorporated into US policy.
- (2) **Initiation of negotiations towards a START III-plus agreement, in cooperation with Britain, France, and China (and perhaps India, Pakistan, and Israel).** One of the failures of the existing arms control process is its limitation to the two former superpowers. Bringing other nuclear powers into a post-START III negotiating process would be valuable to establish ceilings for their deployments of nuclear weapons. This would encourage the United States and Russia to move toward deeper cuts, while also drawing the other nuclear powers into an eventual multilateral

arms reduction process, hopefully by around 2010.

- (3) **Measures to improve transparency and to facilitate elimination of US and Russian tactical nuclear weapons.** Such an initiative is needed because Russia has begun to back away from a number of commitments it made, in 1991 under Gorbachev and in 1992 under Yeltsin, to remove tactical nuclear weapons from its arsenal. To date, no hard figures have been released by either side regarding the process of tactical nuclear weapons dismantlement, much less the location of current systems and their operational status. Given recent statements about the possible reintroduction of tactical nuclear weapons into deployed Russian forces, greater transparency is needed to ensure that Russia is sincere in fulfilling its commitments. Given the much smaller number of weapons believed to be involved on the US side, efforts by Washington to lead this process should be undertaken immediately as a unilateral measure to jump-start progress in this area. Unilateral elimination of the small US stockpile in Europe should be a first step. The two sides should then move to delink the tactical nuclear arms reduction process from the START negotiations, where progress has been held back by other issues. A new forum is needed to encourage more rapid steps toward the elimination of tactical nuclear weapons as a class of weapons.

Nonproliferation Measures

- (1) **Greater support by the nuclear weapon states for the Central Asian nuclear-weapon-free zone initiative.** To date, the nuclear weapon states have offered at best tepid support to the NWFZ initiative in Central Asia, due to narrow, self-interested concerns and their fear of setting precedents for other zone treaties (including over nuclear transit rights through NWFZs). Russia has also sought to maintain its "right"

to redeploy nuclear weapons into Kazakhstan, while the United States has mentioned its fear of a NWFZ “domino effect” into areas of the NIS that might eventually become part of NATO. The weapon states must reevaluate the merits of these arguments in the broader context of global nonproliferation efforts. A concerted effort to help support the treaty’s signature by the time of the 2000 NPT Review Conference would mark an important step toward strengthening the global nonproliferation norm, while helping to reduce the chance of a major split between the nuclear weapon states and the non-nuclear weapon states at this important review conference.

- (2) **Establishment of a regime to prevent Russian exports of nuclear submarine technology and related materials.** Russia appears to be entering the market for the export of nuclear submarine reactors and associated technologies. Given the threat these systems pose as a back-door route to the acquisition of weapons-grade materials, this trade should be halted before it starts. There are only five states that currently possess this technology, making the chances of negotiating such a supplier regime much easier than in other fields.
- (3) **Higher-level political commitment, both in Russia and the United States, regarding the importance of nonproliferation policy.** There is a tendency in the United States and Russia to mention nonproliferation objectives only when it is in the self-interest of the great powers, such as when the NPT was up for review in 1995 or immediately after the South Asian tests. Then, the issue falls by the wayside until the next crisis. Given the serious existing threats to global nonproliferation efforts and the possibility of defections from the NPT, a more consistent and higher-level emphasis is needed on nonproliferation policy—both unilaterally and bilaterally—to ensure that international attention remains focused on

these problems. Greater US-Russian cooperation for nonproliferation policy would greatly facilitate these efforts.

- (4) **Enhanced enforcement of export controls by NIS countries.** Ample evidence exists that various states in the NIS are subverting their own export control laws (and international commitments) through lax enforcement. In Ukraine and Russia, there is solid evidence of government collusion in this process. In Russia, cases against proven illegal exporters of gyroscopes to Iraq have been dropped on spurious legal technicalities. Better enforcement is required if the international community is going to be convinced of the sincerity of NIS nonproliferation intentions.

Cooperative Assistance Programs in the NIS

- (1) **New initiatives for converting or closing the former Soviet Union’s nuclear, chemical, biological, and missile enterprises.** The US “Nuclear Cities Initiative” is one such effort, but it is likely to fall far short of its goals unless additional support is provided. Other nuclear cities and other types of facilities (including biological, chemical, and especially missile) must be included. Additional G-7 countries must be called upon to provide financial support. New programs for *retraining* current workers should be adopted in order to move weapons personnel into new careers. Missile enterprises have attracted the least attention (as they have largely been privatized), and yet this industry poses perhaps the greatest threat of the near-term proliferation of know-how and technology to rogue states. Given funding, Western universities and NGOs could support other retraining efforts by helping to reform curricula in Russian “feeder” institutes to emphasize commercial fields (such as in business administration, ecology, or computer programming) and such subjects as material safeguards, export controls, and nonproliferation. On its part,

Russia must cooperate by enacting new measures to open its closed military facilities to direct foreign investment and to downsize these facilities to a level that is realistically sustainable over the long term. Those enterprises with no meaningful chance of survival must be closed and funds provided for the movement, retraining, or retirement of workers. Western efforts to assist in environmental remediation could provide a useful first step for building needed trust for new programs.

(2) **Enhanced sustainability of MPC&A measures at Russian nuclear facilities.**

The provision of foreign equipment and the construction of new facilities has done little to address the all-important “human element” in MPC&A work, which is crucial to the overall effectiveness of these efforts in the NIS. That is, monitors must be turned on, systems must be operated and maintained, and continued training of personnel must be conducted. A new focus in US assistance programs needs to be developed to address these specific problems, even at the expense of slowing down progress on such desired goals as material consolidation and the completion of material inventories.

CHALLENGES IN THE MIDDLE EAST TO NONPROLIFERATION REGIMES

by Michael Barletta and Amin Tarzi

The proliferation of weapons of mass destruction and other challenges to international nonproliferation regimes emerging from the Middle East have global as well as regional consequences. The patterns of WMD acquisition and regime nonparticipation in the Middle East restrict the scope and effectiveness of the NPT and BWC, and even more so of the CWC and MTCR.

The Middle East—with South Asia and Northeast Asia—is among the three regions of the world most likely to suffer the future use of WMD. Unlike South Asia, Middle East history includes significant instances of the use of chemical weapons, and unlike Northeast Asia, its past conflicts have involved extensive use of ballistic and cruise missiles. The Middle East has endured many destructive wars in recent decades, has been the focus of repeated threats to wage war with WMD, and includes most of the world's active chemical weapons and ballistic missile programs. The region includes one of only four states in the world that refuse to join the NPT, most of the states that refuse to sign the CWC, and eight states armed with Scud-B or longer-range ballistic missiles.

As an interrelated security complex, the region encompasses North Africa, the Middle East proper (including Turkey), and the Persian Gulf. But states in these three sub-regions are not the only actors shaping the prospects for nonproliferation. Non-state actors such as Islamic Jihad and Al Qa'ida have threatened to employ biological and chemical weapons. Moreover, nonproliferation in the region is affected by the military forces and political influence of such external powers as Britain, France, Russia, and the United States, as well as technologies supplied by external actors, including China, North Korea, and “freelancing” Russian firms.

STATUS OF NONPROLIFERATION REGIMES IN THE MIDDLE EAST

Four types of challenge in this region threaten international nonproliferation regimes: nonparticipation, subversion, defiance, and what can be termed “demonstration effects.”

Nonparticipation

- Israel is the only state in the region—and one of only four around the entire globe—that refuses to sign the NPT.
- Algeria, Israel, and the Sudan have not signed the BWC. Egypt and Syria signed the accord in 1972, but they have declined to ratify it.
- Egypt, Eritrea, Lebanon, Libya, Iraq, and Syria are among the very few states in the world that have failed to sign the CWC. Jordan has acceded to the treaty, while Israel, the UAE, and Yemen have signed but not ratified the accord. In these respects, nonparticipation in the CWC is greater in the Middle East and North Africa than in any other region of the world.
- No state in the region except Turkey is a formal member of the MTCR, although Israel has pledged to abide by MTCR guidelines.

Subversion

- Iraq deliberately subverted the purpose of the NPT by ostensibly complying with the accord while it secretly engaged in a vast nuclear weapons production program.
- Iran may be likewise subverting the purpose of nonproliferation accords, if warnings by US and Israeli intelligence sources are correct. It may be difficult to unequivocally confirm possible transgressions by Iran, and to date no

undisputed evidence has been made public to confirm these allegations.

- The nuclear weapon states have made only limited progress toward fulfilling their NPT Article VI commitments. This raises doubt among the 21 Middle East non-nuclear weapon state signatories regarding the legitimacy of the NPT, and whether its indefinite extension in 1995 undercut the prospects for nuclear disarmament.
- Implicit reliance by the United States on nuclear weapons to deter the use of biological and chemical weapons against its military forces and allies legitimates the possession of nuclear weapons, and contravenes US negative security assurances to non-nuclear NPT signatories.

Defiance

- Iraq has endured the sacrifice of the lives of hundreds of thousands of its citizens, tens of billions of dollars, and prospects for normalized international relations in its determination to prevent implementation of UN Security Council resolutions mandating verification of its disarmament of WMD.
- The vexing example of persistent Iraqi defiance of its international commitments has limited prospects for building political coalitions to provide security or economic inducements to—or to generate political or military pressures on—other states to conform to international nonproliferation norms.

Demonstration Effects

Widespread acquisition of WMD by states in the region and unequivocal evidence of significant instances of the use of chemical weapons—compounded by international non-action in the face of acquisition and use—motivates and legitimates further acquisition of WMD capabilities.

Acquisition

- Israel possesses a relatively sophisticated nuclear arsenal, and there is significant risk that Iraq and Iran may acquire nuclear weapons in the medium to long term.
- UNSCOM inspectors have been unable to verify that Iraq does not possess agents and production capabilities for biological weapons. There are also unverified reports that Egypt, Iran, and Israel may have BW programs.
- Egypt, Iran, Iraq, Israel, Libya, and Syria have all produced chemical weapons.
- Egypt, Iran, Iraq, Israel, Libya, Saudi Arabia, Syria, Yemen, and the United Arab Emirates have all acquired ballistic missiles with range/payload exceeding MTCR objectives. Presently, at least, Iraqi missile programs are constrained by UN-mandated restrictions.

Use

- Since 1945, Egypt, Iran, Iraq, and Libya have carried out chemical weapons attacks on neighbors in the region. During the Iran-Iraq war (1980-88), Iraq made extensive use of chemical weapons, provoking Iran to follow suit. Iraq also wreaked deadly CW attacks on unarmed Kurdish civilians within its territory in 1988.
- Egypt, Iran, Iraq, Libya, Syria, and Yemen have used ballistic missiles in the region. During their “War of the Cities” in 1988, Iraq and Iran fired hundreds of ballistic missiles in indiscriminate attacks on respective urban areas.
- Egypt, Iran, Iraq, Israel, Syria, and the United States have used cruise missiles in Middle East conflicts. The United States has made the most extensive use of cruise missiles in the region, launching limited attacks on Iran and the Sudan, and hundreds of missiles against Iraq since 1991.

Acquiescence

- In the 1980s, the international community offered merely rhetorical opposition to Iraq's use of chemical weapons against Iranian military forces and Iraqi Kurds, while maintaining extensive aid for Iraqi conventional military and WMD procurement.
- Key international suppliers have accepted and facilitated WMD proliferation by maintaining military and political support and economic relations with clients, even when such states violate nonproliferation norms. For example, the United States accepts Israeli nuclear weapons development and refusal to sign the NPT. In the 1980s, France accepted Iraqi assurances that its nuclear development would remain pacific. Recently, France and Russia have sought to lift UN sanctions on Iraq without requiring UNSCOM-verified WMD disarmament, while Russian firms provide aid to Iranian nuclear and missile programs.

OBSTACLES TO PROMOTING NONPROLIFERATION IN THE MIDDLE EAST

Three general problems hinder the promotion of nonproliferation regimes in the Middle East: mutual reinforcement among states' respective WMD programs; multiple actors with veto power; and subordination of nonproliferation to other security, political, and economic objectives.

First, with a few important exceptions (notably Iraqi designs to make aggressive use of WMD, use of CW by Egypt in the 1963-67 Yemeni war, and use of CW by Libya against Chad in 1987), most states' chemical weapons and ballistic missile programs aim to match or compensate for their rivals' military capabilities, and thus to enhance their security and regional prestige. Yet even when reactive, this pattern creates serious difficulties for nonproliferation policymaking. Due to linkages among nuclear, biological, chemical, and missile proliferation, efforts to promote nonproliferation in any one area are apt to have only limited success, or to

actually encourage another form of WMD proliferation. For example, Israeli conventional military predominance in the last 20 years, along with that state's nuclear proliferation, stimulated Egyptian and Syrian interest in acquiring chemical weapons and ballistic missiles, while Iraq's nuclear weapons program and use of CW and ballistic missiles provided strong incentives for Iran to develop counterbalancing capabilities.

Second, at least three, and possibly five, states in the region have effective veto power over the prospects for nonproliferation regimes and other regional security arrangements (Egypt, Iran, and Israel, and perhaps Iraq and Syria). The intransigence of key actors—e.g., Israel regarding the NPT, Iraq regarding UN Security Council-mandated WMD disarmament, and Iran's disruptive power regarding the Arab-Israeli peace process—tends to be mutually sustaining. Each of these states' WMD programs creates powerful incentives for matching and rivalry among neighboring states, which, in turn, provides incentives for other actors to match or counterbalance. Furthermore, multiple and shifting alliances and enmities in the region, coupled with ideological and geopolitical rivalries, create a cascading series of regional security dilemmas.

Third, nonproliferation efforts in the Middle East are routinely subordinated to other foreign policy objectives. WMD proliferants in the region value perceived advantages in military capability and prestige more than nonproliferation. Foreign suppliers consider access to oil, investment opportunities, and conventional arms export earnings more important than nonproliferation. For example, China, North Korea, and Russia are willing to export WMD technology or equipment to gain access to large sums of capital, while for China and Russia WMD exports to the Middle East also provide political leverage in relations with the United States. Moreover, US prioritization of its special relationship with Israel undermines the legitimacy of US nonproliferation initiatives in the region, due to its preferential treatment of Israel with regard to enforcing nonproliferation norms and UN Security Council resolutions. Several Arab states apparently judge

efforts to redress perceived inequalities in military capabilities, resource distributions, and international relations as being more important than the security risks incurred by unrestrained CW and missile proliferation.

PROMISE AND PROSPECTS

Some recent developments in the region are promising. Initial signals from the new Israeli government are encouraging with regard to the Arab-Israeli peace process and initiation of an Israeli-Syrian dialogue on a comprehensive settlement. The recent Iran-Saudi Arabia rapprochement—which has included calls for making the Middle East a zone free from WMD—could serve as a bridge from Iran’s confrontational posture toward more cooperative relations with its Arab neighbors, based initially on economic cooperation among the Gulf states. Regional isolation of the Iraqi regime constrains Iraq’s hegemonic ambitions, while providing a cautionary lesson for potential proliferants. Despite these encouraging signs, the unresolved inter-linked proliferation and security issues of the region continue to pose serious nonproliferation challenges.

Given the three general problems identified above, initiatives that focus narrowly on any of the four nonproliferation regimes alone, or that address challenges posed by particular countries considered in isolation, are unlikely to succeed. The best prospects for promoting nonproliferation will be provided in the context of broad frameworks that address linkages, incorporate key actors, and provide tangible security, political, and economic benefits for participation in and compliance with nonproliferation regimes.

CHALLENGES IN SOUTH ASIA TO NONPROLIFERATION REGIMES

by Lawrence Scheinman

The nuclear tests conducted by India and Pakistan in May 1998 put the nuclear nonproliferation regime under great stress. For the first time in 34 years, a state openly declared itself to be a nuclear weapon state. Unlike India's 1974 test—a single event, carefully defined by the government of the day as a peaceful nuclear explosion, and not followed by declarations regarding nuclear status—the 1998 event involved a series of tests, followed by the Prime Minister asserting that India was now a nuclear weapon state and that it would not hesitate, if it chose to do so, to deploy nuclear weapons. Pakistan followed suit toward the end of May.

While leaders in India and Pakistan stressed the strategic and political considerations that informed the decisions in both capitals, the general view from outside the region is that overt nuclearization has created uncertainty and risk for both countries and made the region a more dangerous place. The 1999 military clash over Kashmir, involving insurgents crossing into Indian-held Kashmir from Pakistan, and the downing of Indian jet fighters over Pakistani Kashmir, only serves to heighten those concerns.

Although as of July 1999 neither side has deployed nuclear weapons, that may not always be the case. Assembly, induction, and deployment of nuclear weapons by both sides will negatively impact regional stability and security. Moreover, tacit international acquiescence in such embedded proliferation may have significant negative spillover effects on the nuclear nonproliferation regime. These considerations underscore the importance of developing and maintaining focused policies to mitigate the consequences of the events that have taken place and to restrain the future course of nuclear development, and encouraging the Indian and Pakistani leadership to support measures that advance nonproliferation and

nuclear arms control and disarmament, even if they are not prepared to adhere to the NPT.

Reactions to the tests in the P-5, the UN Security Council, and the group of eight advanced industrial nations (G-8) converged on common themes, which focused on averting a nuclear arms race on the subcontinent and protecting the nonproliferation regime. In addition to condemning the tests, responses included calls for:

- no further testing;
- adherence to the CTBT;
- non-deployment of nuclear weapons and nuclear-capable ballistic missiles;
- support for a fissile material production ban, and a moratorium on production while a treaty is being negotiated;
- tightening export controls over materials, equipment, and technology that could contribute to the development of WMD or missiles capable of delivering WMD;
- exercising restraint in the development of ballistic missiles capable of delivering nuclear weapons; and
- taking political steps to address and resolve long-standing differences that could lead to military hostilities between the two states.

STATUS OF NUCLEAR NONPROLIFERATION IN THE REGION

Progress toward these goals has been slow and halting, and in some cases subject to backsliding. Initial expectations of early signing of the CTBT, based on public statements by Indian and Pakistani leadership, remain unfulfilled. India's declared interest in achieving an as-yet-undefined minimal deterrent forecloses any rollback

possibilities in the foreseeable future, and raises doubts about how effectively fissile material production, and nuclear weapons and missile development and deployment, can be curbed. A fissile material production cut-off remains a distant prospect. In the area of export controls, it initially appeared that measures to strengthen and broaden controls would be undertaken with dispatch. Yet the view has emerged in some quarters in India that there are no problems to be fixed, and that if strengthened controls are what the United States and other states want, then India should expect something in return. This raises the question whether nonproliferation is valued in its own right, or is an appropriate matter to be held “ransom.” Missile tests have continued on a tit-for-tat basis, ratcheting up in range and provocative character. Proliferation is not an all-or-nothing affair, but rather a matter of steps and degrees. And there is little evidence from the past year to give comfort that South Asian proliferation is in anything more promising than a holding pattern.

Proliferation in South Asia is the consequence of a convergence of three classes of motivations: security perceptions, domestic political considerations, and—particularly in the case of India—concerns and frustrations about international equity. The nonproliferation regime can affect the first of these issues, and provide support to domestic constituencies opposed to proliferation insofar as the second is concerned. But it has a more limited effect on the third, especially as the regime acknowledges (but does not create or legitimate on a permanent basis) differential status between two classes of states. For India, unlike Pakistan, the question is not only one of national security but also of international status and position, which, looking at the permanent membership of the UN Security Council, India equates with nuclear status.

Thus, the issue of proliferation in South Asia cannot be addressed by the nonproliferation regime and the NPT alone. More attention needs to be given to political incentives and intentions than has traditionally been the case, as reflected in the supply-side constraint strategies articulated by NPT leadership states. In the post-Cold War

environment, in which local and regional interests, considerations, and concerns have risen in priority, closer attention needs to be given to the factors that motivate states. As long as nuclear weapon states maintain doctrines and postures that confirm the relevance of nuclear weapons to national security, and as long as the perception endures that nuclear status buys political standing, it will be difficult to move India away from its current positions on the NPT, a regional nuclear-weapon-free zone for South Asia, and implementation of some form of deterrence. This is true despite the fact that the security attained by such a unilateral deterrent is problematic at best, while the potential for negative spillover is high.

This situation calls for a policy agenda aimed at blunting the effects of South Asian proliferation, mitigating its potentially damaging impact on the NPT and nonproliferation regimes, and fostering an environment that amplifies incentives to inhibit, if not, at least in the near term, reverse, proliferation behavior. Steps in this direction have to be such that they neither reward nor are seen to reward proliferators for their behavior. This places outside the realm of plausible options:

- engaging in nuclear-specific cooperation on anything other than the terms and conditions established by the NPT and the nuclear supplier consensus;
- considering granting status such as a permanent seat on the UN Security Council to a state that has crossed the nuclear proliferation threshold;
- acquiescing in “the new reality” by giving priority to “other” interests rather than to nonproliferation;
- assisting the proliferators with transfers of relevant equipment and technology to stabilize their newly acquired nuclear weapons against risks of misuse, miscalculation, or accidental launch.

These postulates can be subject to some flexibility, in the context of packaged agreements that do not sacrifice the regime to momentary

expediency. For example, it would be appropriate to consider flexibility on limited nuclear cooperation (e.g., on nuclear safety), in the context of South Asian participation in the CTBT and FMCT, and acceptance of international safeguards on all their peaceful nuclear activities.

POLICY OPTIONS

There are no silver bullets, no quick and easy solutions, and no clever strategies that will survive the discerning eyes of Indian and Pakistani politicians and bureaucrats. Rather, a mix of incentives and disincentives is required. The following approaches will not be surprising or show-stopping, and are consistent with UN Security Council Resolution 1172 of 1998, the G-8 communiqué, and other multinational communiqués and statements. If the nonproliferation treaty and regime are not to be compromised, then these goals, including eventual universalization of the NPT, should remain paramount for the international community.

- (1) Focus on global nuclear arms control and disarmament measures, in particular the CTBT and FMCT negotiations. These are major building blocks for nuclear disarmament and nonproliferation. They are non-discriminatory, universally applicable arrangements that respectively cap qualitative and quantitative dimensions of nuclear development and acquisition. They should not be proposed as end points, but rather as building blocks in a long-term process leading toward the ultimate elimination of nuclear weapons—an objective that the P-5 should collectively reaffirm, as they did at the 1997 NPT PrepCom. Thus the issue of existing stocks, which is a sticking point in FMCT, can be compartmentalized and addressed subsequently in the context of treaties that are universally adhered to and effectively verified.

A first step toward progress on the CTBT is for those of the five weapon states that have not yet done so to ratify the treaty themselves. Preaching what one does not practice

is a poor recipe for successful leadership. The United States has a special responsibility in this regard.

In the case of the FMCT, China is the only nuclear weapon state that has not formally asserted that it no longer produces fissile material for weapon purposes. Given Indian security concerns, a first step would be for China to make such a formal declaration. A second step would be for the five *de jure* weapon states to codify their position on fissile material production, affirm a moratorium while an FMCT is being negotiated, and call upon India and Pakistan to do likewise and to work *constructively* for successful negotiation of a treaty in the UN Conference on Disarmament.

Implicit in all of this is a need to ensure sustained commitment to nonproliferation among the nuclear weapon states. Breaks in the ranks—reflected in export policies, nuclear cooperation with proliferants, or tacit political support for them in areas suggesting their behavior is legitimate—will undermine nonproliferation in the long run.

- (2) Although in the foreseeable future it is not even remotely plausible that India or Pakistan will reverse the actions that they have taken, Indian emphasis on the lack of progress toward nuclear disarmament underscores a concern shared by many NPT adherents. Indian pressure for negotiation of nuclear disarmament in the CD on the basis of a time-bound framework is not a plausible option from the point of view of the nuclear weapon states. But resistance to even allowing discussion of nuclear disarmament in the CD is overwrought: even given the principle of slippery slopes, discussion will not lead automatically to negotiations.

While there has been little progress toward nuclear disarmament in the past year, over the past decade the bilateral negotiations and reciprocal unilateral measures taken by the United States and the Russian Federation have constituted considerable progress.

Getting START back on track is more important than enlarging the number of players in the dialogue; that process has worked and is the only tenable approach for the present. Multilateralization can complicate the process and even be counter-productive. However, it should be possible for the nuclear weapon states to discuss disarmament, and to agree on and implement one or two measures to demonstrate another step toward nuclear disarmament in the NPT review conferences. These could include not only measures to reduce numbers, but also to increase transparency and to lock in irreversibility.

Revitalized bilateral or bilateral-plus arms control and disarmament negotiations, coupled with discussion of the general issue in the CD, would remove a point of leverage for India with the non-aligned states. It could also serve to remove one rationale for whatever actions toward “weaponization” or development of a “minimal deterrent” that India might take. At the very least, it would provide ammunition to cooler heads in New Delhi regarding the pace at which nuclearization proceeds. It could also bear on the important issue of deployment of nuclear-armed missiles, and could help dampen the process of further development and refining of medium-range and especially intercontinental ballistic missiles.

- (3) Confidence-building measures aimed at addressing legitimate security concerns that serve as an incentive to acquiring nuclear and other weapons of mass destruction need to be developed and implemented. These should include not only the regional players, but also China. Outside states may play a constructive role in assisting in the identification, development, and implementation (through technological assistance) of confidence-building measures that reinforce commitments such as those made in the Lahore Memorandum of Understanding.

- (4) Missile proliferation restraint is critical. India has substantial indigenous capability in missile development and production, and Pakistan has become increasingly self-reliant. Both, however, remain reliant to some degree on external assistance, as demonstrated by India’s effort to acquire cryogenic engine technology from Russia and Pakistan’s long-standing cooperation program with China. This underscores the importance of strengthening the MTCR. But equally important is the need for increased efforts to persuade India and Pakistan to exercise restraint in missile activity, especially deployment of nuclear-capable missiles.
- (5) Both India and Pakistan have ratified the CWC and BWC, and India has made a frank declaration of its past CW production activities. Full adherence to all aspects of these treaties would not only reinforce the global regimes they represent, but also remove any concern between the two parties that treaty-prohibited activities are taking place. This is an added element of a confidence-building regime that can help dampen proliferation-oriented behavior.

NORTHEAST ASIA 1999: CURRENT THREATS TO NONPROLIFERATION REGIMES

by Evan S. Medeiros

Northeast Asia stands out as a region of significant concern regarding the proliferation of weapons of mass destruction and their delivery vehicles. North Korea and China continue to engage in activities inconsistent with international nonproliferation norms. In the last year, North Korea became increasingly intransigent about its suspected nuclear weapon program and even threatened several times to abandon the United States-North Korea Agreed Framework and restart its nuclear program. Furthermore, North Korea—and to a lesser extent China—remain countries of concern regarding transfers of sensitive technologies to known proliferators, and both nations have pushed the limit of—or even violated—widely accepted nonproliferation norms of the international community.

Moreover, these security problems are unfolding in the context of a significant regional economic downturn and in the absence of an effective regional security mechanism to ameliorate and resolve many of the underlying economic and security issues. The acute economic problems enveloping the region create uncertainties regarding political stability and regime continuity that could, in the future, generate new proliferation risks. Indeed, the lack of a regional security mechanism means that the region as a whole is not adequately prepared to address effectively the increasingly complex arms control and nonproliferation agenda that confronts it.

CHINA

In the last decade, China's overall participation in arms control and nonproliferation has increased dramatically. China signed the NPT, the CWC, and the CTBT. (It has been a BWC member since 1984.) China has also agreed to abide by the MTCR, and Beijing supports FMCT negotiations. However, many concerns persist

regarding Beijing's interpretations of its commitments and its ability to implement and enforce them. China's missile, nuclear and chemical exports merit particular attention. Prospects for resolving these problems are uncertain, because China's positions on arms control and nonproliferation are increasingly being politicized by Beijing and, therefore, are being tied to shifts in Sino-US relations.

First, regarding missile nonproliferation, China is not yet a full member of the MTCR and its current commitments to the regime are vague and weak. China has only committed to abide by the MTCR's original 1987 guidelines and parameters; it has not agreed to accept the 1993 revisions. China has also never accepted the MTCR's annex that outlines the technologies controlled under the accord. Without acceptance of the MTCR's annex, meaningful implementation of MTCR restrictions is difficult to carry out. In addition, China has never openly published export controls covering MTCR-controlled technologies, making it unclear *how* and *the extent to which* Beijing controls the export of MTCR items.

These ambiguities have allowed China to maintain its exports of missile-related equipment and technologies to Iran, and possibly to Pakistan. China continues to provide Iran with missile sub-systems and production technologies for short-range missiles not covered by the MTCR, yet these items could also be used for Iran's medium- and long-range programs. Moreover, China provides Iran with many dual-use technologies (e.g., titanium-stabilized duplex stainless steel), which are also likely used for proscribed missile programs.

Although China's past missile assistance to Pakistan was extensive and involved the export of complete M-11 missiles, Chinese missile aid to Pakistan may have ceased following the May 1998

nuclear tests in South Asia. In a June 1998 United States-China Statement on South Asia, China pledged to stop all missile and missile technology exports to Pakistan. China's adherence to this pledge requires continued monitoring and verification. But in any case, prospects for China's full membership in the MTCR are bleak. Chinese officials state they are "actively studying" MTCR membership, but little progress is expected due to China's concerns about the US sale of theater missile defense systems to Taiwan.

Second, Chinese exports of nuclear equipment, materials, and technologies to Pakistan remain of concern. Although the Chinese government promised in 1996 to halt nuclear assistance to unsafeguarded facilities, China's longstanding nuclear weapons-related assistance to Pakistan has created technical relationships and channels of communication that will be difficult to limit. Some Chinese entities may continue to export dual-use nuclear items to Pakistan that could be diverted to the country's military nuclear program. Such assistance could also be provided under the guise of China's ongoing civilian nuclear cooperation with Pakistan. Furthermore, the ongoing restructuring of China's nuclear industry has created managerial uncertainty that in the short term could facilitate illicit nuclear exports to Pakistan.

Third, China is a member of the CWC and has taken several steps—arguably more than has the United States—to implement its commitments, including the promulgation of a series of export control laws covering CWC items. China, however, has had difficulty implementing and enforcing the CWC's export prohibitions. According to the US Central Intelligence Agency, in 1998 Chinese entities exported CW-related chemicals to Iran, Syria, and possibly Iraq. In 1997, the United States imposed sanctions on seven Chinese entities for engaging in CW-related exports. China's large and sprawling domestic chemical industry has made it difficult for the central government to control the business activities of its chemical industry. Often, Chinese companies are simply unaware of the CWC's export prohibitions.

Another source of concern has been China's position on the Australia Group. China rejects the AG on the grounds that it is not a multilateral treaty like the CWC, it interferes in the operation of the CWC, and it unfairly targets countries like Iran. As a result, Chinese companies continue to export dual-use chemicals that are controlled by the AG, but not the CWC. China's position on the AG has been the source of several bilateral disputes with the United States, and resulted in the imposition of US sanctions in 1997.

Lastly, one overarching factor that will likely influence China's participation in a host of global arms control and nonproliferation accords is the US plan to deploy NMD and TMD systems in Northeast Asia. Chinese officials and analysts fear that NMD deployments will significantly undercut China's strategic deterrent and, as a result, they contend that China will need to reconsider its existing and future commitments to the CTBT and the FMCT. NMD deployment by the United States may also catalyze vertical proliferation of China's missile arsenal (possibly including development of MIRVed missiles) in an effort to overcome the perceived strategic imbalance created by a US missile defense system. Furthermore, Chinese officials see TMD as a form of missile proliferation that, at a minimum, will delay their consideration of MTCR membership. TMD deployments in Japan or Taiwan, moreover, could lead China to reconsider its previous MTCR commitments and prompt resumption of exports of complete missile systems to countries in the Middle East.

NORTH KOREA

North Korea's extensive domestic WMD development programs and its flagrant missile export activities arguably rank it as the world's "Number One Proliferator." Pyongyang's activities represent a serious and immediate threat to global nonproliferation efforts. Yet measures to resolve these multiple WMD issues are largely tied to broader issues of the scale and pace of US diplomatic engagement with North Korea, as well as Washington's approach to Korean reunification.

North Korea's nuclear program remains a persistent threat to nuclear nonproliferation efforts. Pyongyang signed the NPT in 1985, but has not signed the CTBT. Nor is the North in complete compliance with its NPT obligations: the IAEA has not been able to verify the North's initial declaration of the amount of nuclear material it possesses. Based on inspections in 1991, the IAEA calculated that the North produced more than the declared 90 grams of plutonium, but the IAEA does not know how much more. The US intelligence community estimates that the North may have enough plutonium for one or two basic, implosion-type nuclear devices. It is currently not clear *when* or *whether* the IAEA will be able to verify the North's initial declaration, because the inspections necessary to resolve this issue are tied to implementation of the 1994 Agreed Framework (AF), which continues to experience delays. If these delays persist, the IAEA may not be able to determine conclusively North Korea's past plutonium production, possibly allowing the North to keep a small cache of weapons-usable material.

Moreover, the North's implementation of the AF has been inconsistent. Since 1994, North Korea has maintained its freeze on the operation of several key nuclear facilities and halted the construction of two larger reactors. However, the construction at Kumchangri of an underground facility possibly intended for production of nuclear materials raises questions about the North's intentions. Although inspections in May 1999 revealed that the facility was little more than a concrete shell, the North most likely initiated the construction as a political signal of objection to the perceived shortcomings in US implementation of the AF, and as an attempt to extract concessions from the United States. Alternatively, factions in North Korea may still harbor nuclear ambitions and seek to secretly reconstitute the North's nuclear weapon program. North Korea has not relied on outside suppliers for its nuclear programs, and there have not been any reports of North Korean exports of nuclear materials, equipment, or technologies.

North Korea is not a signatory to the CWC and has not expressed any interest in joining the treaty. Since the late 1980s, North Korea has been capable of producing large quantities of chemical weapon agents, including blister, nerve, choking, and blood agents. Many of these CW agents have been weaponized in artillery, aerial bombs, and missile warhead munitions. Beginning in the early 1990s, the North expanded and accelerated its CW production efforts, and according to US intelligence it currently possesses "a sizeable stockpile of chemical weapons."

Moreover, although North Korea signed the BWC, it may possess an operational biological weapons program. Over the past few decades, Pyongyang has had an active BW research and development program, and its current biotechnical infrastructure is sufficient to produce limited amounts of BW agents. The North is not known to have exported chemical or biological weapons-related items to other countries.

North Korea is notorious for its exports of complete missiles and missile production technologies. The North's ongoing missile sales to Iran and Pakistan represent the most immediate and direct challenge to global missile nonproliferation efforts. The North can almost single-handedly undermine global missile nonproliferation efforts with its export policies. In the past North Korea sold missiles and related technologies to Egypt, Syria, and possibly Iraq, and—most significantly—the North even supplied Iran and Syria with production and assembly technologies for Scud-B and Scud-C missiles. Pyongyang also sold Iran the Nodong missile, for which Tehran reportedly provided advance funding. More recently, North Korea may have sold Nodong missiles to Pakistan, which Islamabad calls the "Ghuari" and claims as indigenous.

North Korea's principal motivation for exporting missiles has been to earn hard currency to help its faltering economy. The United States has twice engaged the North in talks about missile proliferation and the MTCR, but North Korean officials say they will only halt missile exports if

the United States offers compensation at the level of \$1 billion per year. The United States has categorically rejected that offer as blackmail. North Korea is not a member of the MTCR and has expressed no interest in joining the regime.

North Korea's domestic missile development program is also of proliferation concern, because Pyongyang has shown a proclivity to export any item in its inventory. North Korea's August 1998 test flight of the Taepodong-1 suggests that this system could be deployed or available for sale at some point in the near future. Export of this new system could be particularly likely if its development was funded by another country, such as Iran or Pakistan.

TAIWAN

Given the threat Taiwan faces from China, combined with the Chinese military's overwhelming numerical superiority, Taiwan's development of chemical weapons to deter or to rebuke an invasion would seem a reasonable option for military planners. Taiwan is not a member of the CWC and may possess an active CW program. It is unclear from open-source information whether Taiwan possesses chemical weapons. The Taiwanese government denies that it has an offensive CW program, and claims that it only engages in defensive CW activities. In fact, even though Taiwan says that it wants to join the CWC, it is not allowed to join. China has objected to Taiwan's membership in the CWC because it would signal Taiwan's status as a sovereign entity rather than part of mainland China. When CWC members implement export-import restrictions to non-members, Taiwan's chemical industry stands to suffer, as it will be unable to purchase certain CWC-controlled chemicals. A series of creative, legal solutions to this problem may exist (such as joint inspections) but they would likely require a degree of cooperation between China and Taiwan that is difficult to envision during the currently tense period in cross-strait relations.

JAPAN

Japan's possible future development of nuclear weapons and ballistic missiles is an issue of medium- to long-term proliferation concern. Japan possesses the technical capability and the materials to develop nuclear weapons and ballistic missiles. Japan operates an extensive civilian plutonium production program that has allowed it to amass a large stockpile of weapons-usable plutonium, and the country's highly advanced space launch vehicle program could easily facilitate the development of ballistic missiles, possibly of intercontinental ranges.

It is unclear, however, what changes in the international security environment would lead Tokyo to revisit its current nonproliferation pledges. Possible developments include the emergence of a number of new nuclear weapon states such as India, Pakistan, and possibly Ukraine. Other, more dramatic changes could include a weakening of the US security commitment to Japan, or the emergence of China as a highly aggressive actor in the East Asian theater.

Neither of these developments is likely to occur in the short to medium term, however, especially given the recent redefinition of the United States-Japan Defense Guidelines and expanding missile defense cooperation between Washington and Tokyo. In addition, Japan would have to overcome several internal legal barriers and much domestic and international opposition to develop nuclear weapons or ballistic missiles. Most notably, Japan would be forced to undertake the complex legal step of amending its constitution. Nevertheless, given Japan's latent capabilities, attention to debates within Japan is warranted, as well as continuing consideration of the impact of non-Asian proliferation developments (such as the nuclear status of India, Pakistan, and Ukraine) on attitudes in Japan.

CROSS-CUTTING CHALLENGES TO THE NONPROLIFERATION REGIMES

by Michael Barletta

Fourteen members of the Monterey Nonproliferation Strategy Group met at the Center for Nonproliferation Studies of the Monterey Institute of International Studies for the Group's inaugural meeting, July 5-7, 1999.

Members reviewed the findings and policy options detailed in briefing papers prepared for the meeting (and reproduced in the preceding sections of this occasional paper) on the NPT, BWC, CWC, and MTCR, and on regional challenges to these regimes in Russia and the NIS, the Middle East, South Asia, and Northeast Asia. They examined these topics through not-for-attribution discussions in which members participated as individuals rather than as institutional or national representatives.

This summary report was prepared by Strategy Group coordinator Michael Barletta, who sought to capture the sense of the members' deliberations but is alone responsible for their specific expression here. This report does not necessarily reflect the opinions of the group as a whole or of its individual members.

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The long-term viability of the major nonproliferation regimes is at risk. Review of the state of health of the NPT, the BWC, the CWC, and the MTCR indicates that these regimes face dozens of challenges, many potentially quite serious in nature. During the next six to eighteen months, the nonproliferation community can expect few if any positive developments. We must instead brace for a series of upcoming events and probable developments that may constitute turning points toward rapid deterioration of the regimes. This coming period will require effective nonproliferation crisis management, as the most likely “surprises” in the near term are apt to be unfortunate ones.

Iraq and the DPRK—and to a lesser degree India, Iran, and Pakistan—pose near-term proliferation threats. Less obviously, some states routinely presumed reliable adherents to nonproliferation regimes, notably Egypt and Japan, may come to reconsider their commitments to the NPT. Of particular concern, several possible factors might initiate a “chain reaction” in Asia that could culminate in a sudden shift in Japan’s position on nuclear nonproliferation.

Looming challenges to nonproliferation regimes would best be addressed through proactive and creative leadership. There are scant grounds for optimism, however, that the European Community, Russia, the United States, or other potential international leaders will undertake any major initiatives in the near future. In addition to very low expectations for leadership during the next two years, in significant ways Russian and US policies are actually undermining the nonproliferation regimes that the United States and Soviet Union were instrumental in creating.

Experts disagree whether missile defenses offer a sound basis for sustaining nonproliferation, or for addressing regional security challenges to the regimes. However, most concur that the prospective and actual development of missile defenses will likely have significant, unintended, and in some cases negative consequences for nonproliferation regimes.

The CWC appears relatively less endangered than the other three regimes. The grounds for this evaluation are based, however, less on the strength of the CWC than on the weaknesses increasingly evident in the other nonproliferation regimes.

CROSS-CUTTING CHALLENGES TO NONPROLIFERATION REGIMES

Systematic examination of the diverse challenges to the nuclear, biological, chemical, and missile nonproliferation regimes reveals that although manifested in different ways and degrees of severity, most types of challenges are common to *all* the regimes. None enjoys universal adherence or compliance. All are of limited efficacy in meeting their established goals, yet it remains uncertain whether even the complete fulfillment of their objectives would be sufficient to sustain nonproliferation.

Moreover, security and political imperatives overshadow the influence of nonproliferation regimes in key regions of the world, while exogenous national and international developments have significant negative consequences for the regimes. Linkages between sensitive technologies, nonproliferation regimes, and conflict-ridden regions create vicious cycles in which progress toward one nonproliferation goal may undermine prospects for success in another. Despite the evident need to address the full diversity and gravity of these challenges to nonproliferation regimes, meager political will among potential leaders of the international community, as well as disagreement regarding tactics, strategies, and goals, hinders the international cooperation that is necessary to sustain the regimes.

The remainder of this summary report considers these overarching challenges in further detail, as they are manifest across the nuclear, biological, chemical, and missile regimes.

Universality

Although it is the most widely subscribed security treaty in history, even the NPT is

bedeviled by four holdouts: Cuba, India, Israel, and Pakistan. In terms of the total number and of the importance of some states that have not signed and ratified the CWC and BWC, these regimes remain even farther from enjoying universal adherence. Limited membership is inherent to the MTCR as an arrangement among leading suppliers, but the refusal of some important suppliers to participate fully likewise limits the scope of its contribution to missile nonproliferation.

Efficacy

The efficacy of nonproliferation regimes in meeting their stated objectives—either among states party to the regimes or with regard to targets of the regimes—are challenged by problems related to compliance, verification, resources, and organization.

The linchpin of nonproliferation regimes, the NPT, is at risk of becoming a “hollow” regime insofar as it proves unable to resolve the challenge posed by defiant proliferants and treaty violators, notably Iraq and the DPRK, or to contribute to the disarmament of the nuclear weapon states. Similarly, nagging questions about Russian compliance with the BWC, due to inadequate transparency regarding current operations of former biological weapon facilities, cast doubt on the regime’s efficacy. The expulsion of UNSCOM inspectors charged with verifying Iraq’s biological and chemical disarmament undermines the effectiveness of the BWC. The lack of adequate international or national enforcement of the MTCR similarly undermines its efficacy.

Without universal acceptance and full implementation of the IAEA’s 93+2 program of enhanced nuclear safeguards, considerable doubt will remain as to the ability of the agency to verify state parties’ compliance with the NPT. Negotiations to conclude a BWC protocol on verification show no promise of early conclusion, and it is unclear whether negotiating parties will grant access sufficient to justify confidence that the regime can be verified. Challenges to the verification of the CWC range from incomplete reporting by national authorities to national

security and commercial exemptions unilaterally decreed by some member states. Lacking an implementing agency, the MTCR lacks any verification capability beyond that provided ad hoc by member states.

Resource constraints plague international efforts to support nonproliferation regimes. Despite increasingly demanding responsibilities, notably with regard to undeclared nuclear facilities, the IAEA’s budget has remained consistently inadequate. US-Russian Cooperative Threat Reduction programs to address Soviet nuclear legacies are likewise under-funded. Insufficient resources are a primary reason why Russia will almost certainly fall short of fulfilling its commitment to destroy chemical weapon munitions according to the schedule set for CWC implementation.

Organizational factors are one source of the incapacity of the NPT review process to fulfill states parties’ expectations that it would contribute to nonproliferation and disarmament. The OPCW’s organizational culture of secrecy may be detrimental to the regime, insofar as it complicates judgments regarding compliance by member states. The lack of international legal obligations and inconsistent criteria for membership limit the MTCR’s effectiveness.

Adequacy

Some extant challenges to nonproliferation regimes fall outside their scope or cast doubt on their fundamental principles. The ongoing diffusion of sensitive nuclear, biological, chemical, and missile technologies makes it increasingly difficult to sustain international cooperation, creates new types of proliferation threats, and may allow ever more actors to circumvent the regimes. Normative deficits imperil nuclear and especially missile nonproliferation, while the allure of weapons of mass destruction continues to motivate some actors to reject or subvert the regimes.

Denying proliferation-relevant technologies is increasingly problematic due to the commercially

driven diffusion of dual-use technologies. The uncertain security of fissile materials produced by the Soviet Union calls into question a fundamental assumption underpinning international safeguards: that access to fissile material is the primary hurdle to nuclear weapon capability. Commercial interests in biotechnology—and technological developments that constitute a veritable revolution in the field—reduce confidence that a reliable control regime can be established, even as they create the possibility of biological weapons of greater utility for military and terrorist use. The latter threats may include, for example, “innovative” attacks on agriculture. The pace, scope, and sophistication of missile proliferation appears to be simply outstripping the MTCR, with eight states in the Middle East region alone currently deploying Scud-B or even longer-range ballistic missiles.

Disintegration of the military-industrial complex of the former Soviet Union, Russia’s deep economic crisis, and the ensuing risk of a “brain drain” of nuclear, biological, chemical, and missile knowledge and technologies to potential proliferants, constitutes a background threat of uncertain proportions and no obvious remedy.

The nonproliferation regimes lack sufficiently strong norms against weapons of mass destruction. This normative deficit is manifest both in relatively weak opposition to WMD acquisition and to a lesser degree to WMD use, as well as by the enduring international allure of nuclear weapons and especially ballistic missiles. Tepid international response to the South Asian tests both reflected and further contributed to the weakness of the norm against nuclear proliferation, while the slow implementation of the NPT by parties to the treaty limits the regime’s legitimacy. Continued reliance by the P-5 on nuclear weapons to assure their security, as well as renewed US interest in the military utility of nuclear weapons to confront biological and chemical weapon threats and Russian interest in tactical nuclear weapons to compensate for conventional military shortfalls, demonstrate that some leading states believe their possession is both licit and wise.

International norms against the *use* of chemical and biological weapons are certainly stronger, though of unclear potency in curbing their *acquisition*. However, the international normative context of missile proliferation is unfavorable to nonproliferation regimes: ballistic and cruise missiles are commonplace and almost universally accepted components of advanced arsenals and military conflict. Even within the regime, working definitions of missiles and missile-relevant technologies are problematic. For those outside of the MTCR, its “cartel” nature creates, moreover, perceptions that the regime is discriminatory and thus illegitimate.

Regional Imperatives and Regime Linkages

In at least two senses, regional dynamics “trump” nonproliferation regimes. First, security and political factors outweigh the influence of global regimes in East Asia, the Middle East, South Asia, and arguably Europe. Second, nonproliferation policies and security arrangements designed to address particular regional circumstances may undermine the credibility and effectiveness of the regimes in other contexts or at the global level. Linkages between types of proliferation within regional contexts, as well as exogenous developments, compound these challenges. Despite the nonproliferation regimes’ contributions to global security, resolving the challenges to the regimes that result from regional dynamics will require a clear understanding of the security needs and other considerations that motivate states within the regions.

To date, the NPT regime lacks a fully credible response to nuclear proliferation challenges emerging in the Middle East, Northeast Asia, and South Asia. Most immediately, the 1998 nuclear tests in South Asia were driven by regional security and political causes, but their ensuing consequences may unfold in the Middle East, the NPT review process, and the UN Security Council. International perceptions of positive or negative changes in status afforded India and Pakistan will be particularly important in determining the cumulative impact of the weapons tests. In the

Middle East, Israel's possession of nuclear weapons may lead to an intense near-term challenge if Egypt seeks to use it to block agreement at the 2000 NPT Review Conference. Causal linkages among nuclear, biological, chemical, and missile proliferation also afflict the region, such that efforts to promote nonproliferation in any one area may unintentionally encourage another form of WMD proliferation. Missile arms races in all three of these regions indicate the extent to which negative regional dynamics overshadow the positive contributions that nonproliferation regimes can make in promoting national and international security.

With regard to policy responses, the United States-DPRK Agreed Framework exemplifies the tough challenge of devising measures that can work within a regional context without setting precedents that undermine nonproliferation regimes. Less obviously, compromises on the implementation of verification provisions of the CWC that may be made to meet certain national and regional demands could well have negative consequences in other contexts, and for standards and expectations that will be established for the BWC.

While linkages between regions, regimes, and types of proliferation are evident, they are difficult to grasp analytically and even harder to address through consistent, integrated policy. The most important and ironic example is that the success of the nuclear nonproliferation regime may provide incentives for states to seek biological and chemical alternatives. Arguably at least, difficulties in strengthening nonproliferation regimes may be traced to the stalemate on efforts to negotiate measures toward disarmament in the UN Conference on Disarmament. And as noted above, successfully addressing one type of proliferation in the Middle East, and thus shoring up one nonproliferation regime, may unwittingly exacerbate pressures for the acquisition of alternative weapons of mass destruction. Hopes that all challenges in this or other key regions could be resolved simultaneously, however, remain dim.

Finally, exogenous events and trends affect the nonproliferation regimes. For example, Russian economic problems and NATO's recent conflict with Yugoslavia are among the factors undermining US-Russian cooperation on nonproliferation. These types of challenges cannot be addressed by the regimes, but their consequences must be mitigated.

Insufficient Political Will

Scant political will and inconstant attention among potential leaders of the international community pose an across-the-board challenge to sustaining and strengthening all of the nonproliferation regimes, and to related arms control measures such as the CTBT and START. The paucity of high-level commitment is a product of the dominance of domestic factors in setting the agendas of key states, the low priority of nonproliferation among foreign and security affairs, and commercial incentives overriding efforts to control technological diffusion.

Public statements about the severity of the WMD threat notwithstanding, the United States and other influential states do not have a coherent, long-term strategy to sustain the regimes. Instead, new policy initiatives lag behind trends and emerge sporadically only in response to crises. Senior US policymakers rarely devote serious or sustained attention to the regimes, with predictably negative consequences for the long-term health of the regimes. In these respects, nonproliferation is allocated a low priority among foreign and security issues.

Despite the pace of international change in the post-Cold War era, domestic political factors ranging from electoral schedules to bureaucratic interests to sectoral interests dominate agenda setting among key states. The Russian Duma's obstructionism with regard to START is perhaps the most obvious example. However, the US agenda is likewise plagued by such "provincial" pressures, ranging from policy stagnation during the presidential electoral cycle, to bureaucratic drift on negotiations on a BWC protocol, to pressures to reduce controls on sensitive technologies. The

traditional US penchant for unilateralism in its foreign relations, in the context of a militarily unipolar world, allows immoderate influences at home while provoking opposition to nonproliferation regimes among domestic polities and decisionmakers abroad. Similar examples of domestic factors dominating national agendas can be identified in many other states today.

International commercial competition—often real if sometimes overblown—poses a serious challenge to sustaining political support for controlling sensitive technologies. This negative factor is manifest in negotiations on the BWC verification protocol, and in willful US delay in implementing the CWC. Industry reluctance to support effective implementation of nonproliferation regimes must be overcome if the regimes are to be sustained. Member states must avoid fixation on narrow commercial interests as well as unilateral action in fulfilling their commitments to the CWC. Similarly, commercial space-launch interests of MTCR members and non-members pose a serious impediment to sustaining the missile control regime.

Lack of Consensus

The viability of nonproliferation regimes is challenged by international and national discord on specific tactics, general strategies, and even fundamental goals of nonproliferation. In some cases, the disputes result in part from the sheer difficulty of the problem: e.g., in coping with the Iraqi and North Korean challenges to the regimes. In other areas entrenched differences impede cooperation, as evidenced by the perennial debates over Article VI of the NPT. With respect to some key issues, including missile defenses and BWC verification, the United States and other key actors have yet to decide upon their priorities with respect to the regimes.

Tactical disagreements make it difficult to sustain and strengthen nonproliferation regimes. With regard to all four regimes, many states have shown a predilection for technical and unilateral solutions, giving scant attention to political dimensions or the need for international

collaboration to successfully meet challenges to the regimes. In some cases, the “best” solution has been at odds with a “good” approach to sustaining a regime. For example, some state parties have sought to employ the NPT Review Conference process primarily as a vehicle for promoting disarmament. While the Review Conference may contribute to disarmament, it also fulfills other regime objectives, and the NPT may be unable to bear the weight of some members’ aspirations to promote disarmament. Likewise, negotiation of the BWC verification protocol must be carried out with regard to the trade-off between taking time to build consensus on a technically sound protocol, against the risk that indefinite delay could result in no protocol whatsoever. A merely symbolic protocol, however, might well be worse than none at all.

Disagreements over strategies to sustain the nonproliferation regimes are sharpest and most vexing with regard to the hardest cases: how to cope with defiant proliferants that cheat on their nonproliferation commitments. In this regard, Iraq and North Korea have demonstrated an impressive and lamentable capacity for sowing dissent among the leaders of the nonproliferation regimes. US deployment of national missile defenses or of theater missile defenses in East Asia may play a damaging role by furthering disagreement over strategies to sustain nonproliferation regimes. National missile defenses will likely have a significant and negative impact on the ABM Treaty, and perhaps on the NPT. Regional systems provide incentives for increased acquisition of ballistic missiles, and may provoke defiant countermeasures that could include irresponsible WMD exports by suppliers who believe their political or security interests are harmed by missile defenses. While the potential contradictions between missile defenses and nonproliferation regimes are sometimes overdrawn, and potentially complementary aspects under-recognized, their cumulative impact may be quite negative and due to political as much as security factors.

Effective multilateral nonproliferation regimes depend as much or more on effective leadership as

they do on inclusive and meaningful participation by all parties. While strong leadership by the United States is by itself insufficient, its absence provides little confidence for the success of the regimes. Despite the importance of US leadership in meeting challenges to the regimes, many in the nonproliferation community believe that in some important ways the United States itself may pose threats to the regimes. There is no consensual judgment *why* this is the case, however. Depending on ideological, political, and professional perspective, analysts make divergent attributions of responsibility: Republicans or Democrats, myopic isolationists or export-oriented free marketeers, the “military-industrial complex” or the arms control “theocracy.”

Like many international endeavors, nonproliferation regimes serve as means to divergent ends, ranging in this case from peace to prestige to security to power. The predominant motivations in specific cases may be quite contradictory, which may call into question the long-term prospects for the regimes. Some states, such as Japan, South Africa, and Sweden, may see nonproliferation as an institutional and normative means to promote international disarmament. Others, such as Argentina and Brazil, may see their participation in the regimes primarily as means to gain credentials in the international community that serve other foreign policy objectives. A few, notably Iraq and North Korea, have viewed nonproliferation commitments as instruments for deceit—as smokescreens for the clandestine pursuit of weapons of mass destruction. Key sectors in at least one actor, the United States, view the nonproliferation regimes in part as means to sustain the nation’s conventional military dominance and to enhance its operational capacity for foreign military intervention.

There is no reason, *a priori*, why divergent motivations cannot indefinitely sustain the support of many countries. But in practice, divergent objectives may cause friction or even lead some states to withdraw support from nonproliferation regimes. For example, increasing US reliance on nuclear weapons to address CBW threats helps to sustain the international legitimacy of possessing

and threatening to use nuclear weapons. Increased Russian reliance on tactical nuclear weapons to meet perceived conventional security threats could likewise be of pernicious effect in demonstrating how sharply some key states diverge over the purpose of the nonproliferation regimes. Most profoundly, key supporters of the NPT regime disagree whether it is threatened by the *lack* of progress or by the *risk* of progress toward nuclear disarmament.

Treaties

Treaty on the Non-Proliferation of Nuclear Weapons (NPT)

- Includes provisions to:
 - Prevent the spread of nuclear weapons: Articles I and II prohibit nuclear weapon states from transferring or assisting any recipient in the development of nuclear weapons, and prohibit non-nuclear weapon states from acquiring or developing nuclear weapons;
 - Establish safeguards: Article III requires application of international safeguards to ensure that peaceful nuclear activities in non-nuclear weapon states are not diverted to making nuclear weapons;
 - Promote the peaceful uses of nuclear energy: Article IV recognizes rights to access civilian nuclear technologies under safeguards; and
 - Promote disarmament: Article VI calls for efforts to achieve comprehensive arms control and nuclear disarmament
- Opened for signature on July 1, 1968 in London, Moscow, and Washington
- Entered into force in 1970 with an initial duration of 25 years
- In 1995, the NPT was extended indefinitely, with a review conference to be held every five years
- Signed by 187 countries; only Cuba, India, Israel, and Pakistan are non-parties

Biological and Toxin Weapons Convention (BWC)

- Prohibits the development, production, acquisition, and stockpiling of bacteriological agents and toxins of types and in quantities that have no justification for prophylactic, protective, or other peaceful purposes
- Countries must destroy or divert to peaceful purposes all agents, toxins, weapons, equipment, and means of delivery within nine months after entry into force of the convention
- Signed on April 10, 1972
- Entered into force on March 26, 1975
- Of unlimited duration
- As of June 1999, 162 states have signed the BWC, and 140 have ratified the accord

Chemical Weapons Convention (CWC)

- Prohibits the development, production, acquisition, stockpiling, transfer, and use of chemical weapons
- Each state is required to destroy, within ten years of entry into force, all chemical weapons and chemical weapons production facilities it possesses or that are located in any place under its jurisdiction or control, as well as any chemical weapons it abandoned on the territory of another state
- Opened for signature on January 13, 1993
- Entered into force on April 29, 1997
- Of unlimited duration
- As of June 1999, 169 countries have signed the CWC, and 126 have ratified the accord; important non-parties include Egypt, Israel, Libya, North Korea, Syria, and Yugoslavia

Export Controls

Missile Technology Control Regime (MTCR)

- Seeks to control transfers that could contribute to the spread of ballistic and cruise missiles capable of delivering weapons of mass destruction
- Consists of an export control policy and the institutional measures to implement it
- Divides technologies into two categories:
 - Category I: complete rocket and unmanned air vehicle systems capable of carrying a payload of 500 kg or more at least 300 km
 - Category II: lower-risk, often dual-use, hardware and technologies, such as gyroscopes
- Informal, non-treaty association, established April 16, 1987 by the G-7 countries
- As of July 1999, there are 32 member states in the MTCR, and additional states have pledged to abide by its guidelines