Introduction

New Approaches to Compliance with Arms Control and Nonproliferation Agreements

MICHAEL MOODIE & AMY SANDS¹

Michael Moodie is President of the Chemical and Biological Arms Control Institute in Alexandria, Virginia. He is a former Assistant Director of the U.S. Arms Control and Disarmament Agency, where he had responsibility for a range of arms control matters, including negotiations concluding the Chemical Weapons Convention and issues related to the Biological and Toxin Weapons Convention. Dr. Amy Sands is Deputy Director of the Center for Nonproliferation Studies and a Research Professor at the Monterey Institute of International Studies. From 1994-96, she was Assistant Director of the Intelligence, Verification, and Information Management Bureau at the U.S. Arms Control and Disarmament Agency.

security agenda of the United States has been shaped in significant measure by disputes with other nations over compliance with arms control and nonproliferation agreements. Bush (Sr.) and Clinton administration officials faced major compliance-related problems, such as:

- Iraq's unwillingness to cooperate fully with the United Nations to ensure that its weapons of mass destruction (WMD) have been completely destroyed and/or dismantled;
- the dispute with North Korea over its suspected nuclear weapons program in violation of its commitments as a party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT); and
- Soviet and possible Russian compliance issues with respect to the Biological and Toxin Weapons Convention (BWC).

Compliance is central to the long-term sustainability of the arms control and nonproliferation regime and to international security. Despite this importance, compliance is one of the least studied dimensions of arms control and nonproliferation, likened by Charles Flowerree to a poorly crafted drama's "third act [that] plays to a drowsy and distracted audience." Implementation and compliance issues can be painstaking and enmeshed in detail and procedure, without the glamour and drama of treaty negotiation. But, as the former Undersecretary of State for Arms Control and Director of the Arms Control and Disarmament Agency, John Holum has pointed out, "Parents and playwrights will tell you that the realization is no less important than the conception."

Nonproliferation and arms control agreements have a direct role in managing the political dynamics involving "problem" states. Assessing compliance with such international agreements has assumed great importance in that, if not handled effectively, noncompliance can

undermine the regimes embodied in those agreements, make management of relations with problem states more difficult, and, ultimately, foster more uncertainty and instability in the global security environment. In addition, a growing number of agreements involving more members of the international community in concrete implementation activities have been put on the books in recent years. Additional ones may be added in the years ahead, creating more demanding compliance obligations. Of equal concern, recent experiences—such as developments in the United Nations Security Council over Iraq—have highlighted the difficulties in mobilizing the international community in the face of disputes over compliance.

If arms control and nonproliferation agreements are to remain effective instruments of national and international policy, the challenges posed by questions of compliance must be addressed. But, understanding the compliance process is not easy, as it involves a complex set of issues that often revolve around many actors in many organizations.

To address some of the gaps in the literature and in the policy community's attention to compliance issues, the Center for Nonproliferation Studies and the Chemical and Biological Arms Control Institute developed a joint project entitled "Arms Control Compliance: The Need for a New Approach." In July 1998, the project sponsored a workshop focusing on "Compliance with Arms Control and Nonproliferation Agreements: Closing the Conceptual and Policy Gaps" in Washington, D.C. that examined specific case studies in which arms control compliance was the critical question. It also included a discussion of functional issues relating to the compliance assessment process. The articles in this special section were first developed as presentations for that workshop; by examining historical cases, they help to suggest new policy options needed in response to noncompliance challenges. From these efforts, a better framework for dealing with compliance issues hopefully will result.

This introduction outlines the issues addressed by the project. It first looks at the current status of compliance with arms control and nonproliferation measures. Next, it reviews the challenges to compliance efforts. Finally, it sets out the project's recommendations for enhancing arms control compliance.

OVERVIEW OF COMPLIANCE ISSUES

The project members concurred that while major progress occurred in the arms control and nonproliferation arena in the last decade, there is increasing concern about the future of the arms control and nonproliferation regimes. The long-term success of the agreements that embody these regimes and others currently being considered is still to be proven and depends largely on how they are implemented and how compliance issues are handled. So far, the record is mixed. Traditional arms control efforts such as the Intermediate Range Nuclear Forces (INF) agreement, the Treaty on Conventional Forces in Europe (CFE), and the first Strategic Arms Reduction Treaty (START I) appear to have made significant progress in achieving compliance with treaty obligations. But even these treaties have experienced serious bumps in the road, and at times substantial questions about compliance have been raised.4

The picture is bleaker when one examines the multinational nonproliferation agreements and treaties addressing chemical, biological, and nuclear weapons. Here there appear to be many unresolved compliance issues that could ultimately cripple the specific treaty involved and undermine the entire nonproliferation regime. Without the strong foundation of successful implementation of the current set of arms control agreements—implementation that is grounded in effectively managing compliance concerns and responding appropriately to noncompliance—the basis for future arms control will be weakened and the long-term health of today's arms control and nonproliferation regime may be at risk.

Also, efforts are now underway to strengthen the overall arms control and nonproliferation regime through such measures as the International Atomic Energy Agency's (IAEA) strengthened safeguards, the enhanced review process for the NPT, and the efforts of the BWC Ad Hoc Group to negotiate a protocol to enhance compliance. But, these efforts could backfire, i.e., instead of strengthening their respective agreements and through them the entire regime, they may only demonstrate the hollowness of states' commitments. States need to put substance behind arms control treaty commitments in order to meet the objective of reducing security threats and the likelihood of violent conflicts. Without actions behind verbal commitments, arms control will become at best irrelevant.

Effective verification and treaty implementation are based on common principles and practices. Although the verification approaches in treaties aimed at different weapons systems vary, all are designed to deter cheating, create a baseline or context from which to judge relevant information, and reinforce existing norms against proliferation. Effectively integrated, these approaches can achieve the objectives of a good verification system: detection, deterrence, and increased confidence that compliance is being maintained. The value of cooperative reporting, declarations, notifications, on-site activities, transparency, and access are well recognized.⁵ But when these activities do not provide the needed clarity and information to resolve compliance uncertainties, problems emerge that may undermine states' confidence in arms control.

No amount of verification activity can ensure compliance. Compliance is ultimately a political decision, based on states' perceived security needs and objectives. In the early 1990s, states seemed to be on the brink of an era in which entrusting part of their security to the arms control process made excellent sense: it was reducing the threat and was cost effective. But as the project members discussed, new challenges to effective arms control treaty implementation have emerged. Those challenges frequently lie in the domain of noncompliant activities by states whose unwillingness to meet their treaty obligations cast doubt on the value of the entire enterprise.

CHALLENGES

Changes in the Arms Control Milieu

Today's arms control environment is different in some very basic ways from previous times: not only are there more players and more issues, and thus, more complexity, but more destructive technologies are available and societies are more vulnerable. Of great concern are new sets of challenges that have created obstacles to identifying and addressing compliance issues, including:

- 1. increased numbers of actors, state and non-state, involved in arms control;
- 2. differences in technical capabilities of states engaged in multilateral arms control;
- 3. continued international diffusion of information and global technological advancement;

- 4. the dual-use nature of the materials and equipment involved in chemical, biological, and nuclear weapons:
- 5. insufficient consensus about compliance assessment and relevant standards of evidence;
- 6. lack of political will to deal with compliance issues when they emerge; and
- 7. lack of effective enforcement tools.

As Brad Roberts' article ("Revisiting Fred Iklé's 1961 Question, 'After Detection-What?'") discusses, the post-Cold War era reflects a shift from bilateral arms control to multilateral nonproliferation efforts. The end of bipolarity, however, has not led to the emergence of another consistent power configuration on the international playing field. Instead, the discipline of the bipolar world has been lost without a suitable replacement. In the post-Cold War arena, the world order is still in transition, involving multiple actors of diverse characteristics and interests and causing greater concern over key regional actors' capabilities and activities. Until it settles, states are likely to protect their own needs first and worry about international or long-term implications second. This variation in perceived national security needs means that the salience of arms control in general and any one arms control issue in particular will differ considerably across countries.

As Roberts points out, both the number of arms control and nonproliferation treaties and the number of participants in them have grown steadily. Gone are the days when only a handful of Great Powers "do arms control." Several states that previously have had almost no experience with arms control treaties find themselves faced with complex and intrusive obligations.⁶ Not only have several new treaties been concluded recently that involve more widespread membership and more extensive verification activities (Chemical Weapons Convention [CWC] and Comprehensive Test Ban Treaty [CTBT]), but parties to several established treaties, such as the NPT and BWC, are engaged in efforts to augment confidencebuilding measures. Effective implementation of these commitments is critical to establishing a solid foundation for future arms control and nonproliferation efforts. Yet, as Michael Moodie's article ("The Soviet Union, Russia, and the Biological and Toxin Weapons Convention") on the Soviet Union's and Russia's biological weapons program indicates, doubts linger about the commitment of key states to these obligations.

States also vary in the technical and human capabilities and public resources they have available for arms control activities. Some countries, such as the United States, will turn first to monitoring capabilities they control, specifically relying on intelligence resources for their core understanding of others' compliance. Other states, lacking access to such intelligence, will disdain and discredit such information and will depend on multilateral institutions for implementation, verification, and compliance determinations. Project participants agreed that questions about what types of information to use as the basis for determining possible violations loom as large stumbling blocks to the smooth implementation of multilateral arms control treaties. In addition, decisions about what resources to use for multilateral verification efforts and where to place such resources in the world community are complex and often politically driven.7

Other changes in the arms control milieu further complicate the issue of implementing arms control initiatives effectively. Non-state actors, for example, must now be recognized as influential actors that must be integrated into treaty implementation processes. These non-state actors include industry, the media, academics, and non-profit organizations—all entities exploiting the telecommunications revolution that permits rapid and broad dissemination of information. Each of these actors now second-guesses, pressures, and lobbies governments. These other voices can have a substantial impact on official and public perception of the facts. In such situations, non-governmental groups can play an incredibly significant role in molding others' views of what to verify, how to verify, and what compliance is or is not.

Of particular importance in this regard is the emergence of interested non-governmental groups and individuals who can draw on increasing publicly available information related to compliance. This emerging trend was evident during the summer of 1997, for example, when an event very close to the Russian nuclear test site at Novaya Zemlya was detected not only by the U.S. intelligence community, and the prototype CTBT monitoring center, but by academic groups worldwide as well. Very diverse technical interpretations of the data were provided, quickly leading to conflicting assessments and confusing responses. In some ways, this incident put U.S. intelligence on notice that other groups, with somewhat similar information, might be able to present immediate technical analyses questioning its assessments.⁸

Since, in most cases, U.S. intelligence will be unable to disclose fully all of its sources and information, this type of situation may erode the credibility of U.S. compliance assessments.

Today another difference from previous arms control eras is the absence of the presumption of compliance when states sign and ratify a treaty. Roberts' article discusses the impact of this change on how states perceive arms control treaties. This assumption also changed the role and value of verification. Especially before World War II, states treated arms control treaties like gentlemen's agreements. Verification was not needed since it was assumed that states would act like gentlemen and honor their commitments.

Since World War II, the emphasis on verification has emerged because the assumption that states would not cheat on their obligations has eroded. Washington and Moscow both insisted on strong verification measures in their bilateral nuclear arms control agreements because neither side fully trusted the other not to cheat. More recently, especially in the last decade, the view has emerged—based on certain evidence—that some states will sign treaties with no intention of complying. Their objectives in signing the treaty are to obtain access to technology and expertise and have a cover to develop the needed technical foundation for the desired weapon of mass destruction. Many believe that is what Iran, Iraq, Libya, and North Korea had in mind when they joined the NPT. In addition, for several years the U.S. intelligence community has declared that between 10 and 20 states may be developing chemical or biological weapons. Many of these states are signatories of the CWC and BWC.9 If the U.S. assessment is even partially correct, then several states either joined the CWC and BWC knowing they were already in violation, would violate them, or at some time after their signature were willing to do so. The articles by Moodie and Javed Ali ("Chemical Weapons and the Iran-Iraq War: A Case Study in Noncompliance") both examine cases in which states clearly violated obligations they had acceptedthe Soviet Union's obligations under the BWC and Iraq's under the 1925 Geneva Protocol. One effect of this change in assumptions about states' behaviors and objectives is that treaty parties now require extensive multilateral verification regimes. A second, subtler effect is the taint it leaves on both treaty implementation processes and states' perceptions of each other's behavior, thereby undermining the value and credibility of arms control and nonproliferation treaties.

Thus, the new multilateral, multipolar nonproliferation environment creates a plethora of verification and implementation issues. Those issues reflect wide divergences in states' resources, geo-political locations, and national security concerns. Compared to the days of the Cold War, today's context is a very different "playing field"—definitely one that is not level, nor easily made level, and not one necessarily involving just two teams playing the same game.

Gaps in the Compliance Process

As the project participants agreed, some of the most difficult but least addressed compliance-related challenges are those that deal with defining and pursuing exactly what compliance is and when noncompliance occurs. While there is growing awareness of the challenge of dealing with the agreed problem of noncompliance, there has been almost no research and analysis of how to determine and define a compliance problem. ¹⁰

In examining the materials available on the compliance determination process, one is immediately confronted with its sparseness, especially the lack of discussion of how and whether countries regularly review other states' compliance with arms control agreements. The United States has several processes designed to assess how well others are fulfilling their obligations under various arms control and nonproliferation treaties. One is a formal, thorough annual review. There are also several quarterly reviews mandated by Congress and almost daily discussions about treaty implementation issues. While an effort is made to coordinate these different compliance assessment activities, the process is laden with complexity and politics. Even in the United States, the overall compliance determination process can be murky and lack consistency and coherence. Moreover, it does not appear that other countries have developed anything similar to the U.S. approach. Several may engage in compliance discussions at multilateral commissions established for treaties such as INF, START, and CFE, but these efforts appear to be tied closely to specific implementation issues. Most states do not appear to have any internal process to review compliance by other states with a specific treaty or the nonproliferation regime in general.

Another challenge to effective compliance assessments that was raised by project participants is the dualuse nature of technology involved in weapons of mass destruction. Scientific and technological information will continue to spread and provide not only the basis for economic, technological, and social development, but also for nuclear, chemical, and biological military capabilities. As Ali's article discusses, the use of chemical weapons during the Iran-Iraq war galvanized the concern over lax export controls on dual-use CW precursor chemicals and production equipment. This concern helped generate support for forming the Australia Group, an informal forum of states whose goal is to harmonize national export controls on chem-bio materials and equipment. The dual-use nature of the equipment, materials, and technologies makes distinguishing between legitimate and illegitimate activities very difficult. Technical data and verification activities may be of limited help in determining compliance because countries will be able to justify developing a dual-use infrastructure for scientific and commercial reasons.

What will be the basis for assessing compliance if the technical components needed to develop a weapons capability are in place? Compliance assessments would then turn on an analysis of a state's *intent*, which is much too politicized a concept to be the basis for any international action. Depending on the situation, it may even be insufficient to develop the domestic support required to respond.

The project participants cited Iran as a good example of the dilemma resulting from the dual-use nature of the technologies involved in developing nuclear weapons. The United States is convinced that Iran is trying to develop a nuclear weapons capability and is using its nuclear power program as cover to gain experience, materials, and access to critical technologies. But the U.S. assessment, which relies on intelligence assessments of Iranian activities and intent, is at odds with the evaluation of other countries, which focuses on Iranian technical capabilities and a nonproliferation record deemed to be quite good.11 The United States cannot show hard evidence of a weapons program in Iran and has not been successful in making its case based on Iranian intent. States want and need strong evidence to be able to make a decision about another state's compliance with arms control agreements. As the current Iranian case and the historical "yellow rain" controversy presented by Jonathan B. Tucker ("The 'Yellow Rain'

Controversy: Lessons for Arms Control Compliance") demonstrate, relying on intentions will only politicize the compliance process.

Another challenge noted by the project participants is the transition between negotiation and implementation. An example is provided by developments in The Hague where the Organization for the Prohibition of Chemical Weapons (OPCW) was established to implement the CWC. OPCW members have been constantly wrangling over the details of treaty implementation not spelled out in the CWC itself.12 These discussions constitute a virtually new negotiation, and they highlight the gap that often emerges between the intent of the treaty negotiators and the interests of the treaty implementers. A good example of what often has to be "renegotiated" during the implementation phase is terminology. Clarity is critical to implementation, but ambiguity and lack of detail may be the only way to make progress in arms control negotiations. So, defining compliance issues and levels of concern is only vaguely referenced in most treaties. The battle over the specifics is re-engaged when implementation occurs.¹³ The assumption of negotiators is often that the preparatory conference will address these issues. More often than not, however, they are left unresolved until the emergence of an actual problem, a time that is not conducive to constructive dialogue on what compliance behavior may or may not be, how it will be determined, who will determine it, and what the response to it will be.

Implications for Compliance Efforts

Project participants noted several problems that emerge from these compliance-related challenges. One basic problem is that no accepted multinational compliance assessment process exists. The lack of such a process is compounded by the absence of a dialogue on compliance issues until there is a crisis. The assumption is that each state party to a treaty will reach its own compliance determinations and base its responses on that assessment. In reality, only the major states appear to go through such compliance assessment processes. Their assessments are not necessarily accepted easily by other states, which not only do not trust the intelligence upon which they are based, but also do not know exactly how these states reach their compliance determinations, and therefore do not trust their conclusions.

What does it mean not to have an international consensus on how to reach an arms control compliance determination? First, states may vary in the standards they bring to bear on making compliance determinations. Some may demand direct, hard evidence or a "smoking gun" if responses are to be pursued. Others may rely more on having enough information so that it is "beyond a reasonable doubt," i.e., a reasonable person would reach a conclusion of noncompliance looking at the available information. Finally, some might opt for a standard of evidence that is weaker, relying on "a preponderance of evidence" in favor of noncompliance. What any state or international organization uses as standards of evidence is neither transparent nor very well understood. Tucker's article describes the negative impact of having no agreed understanding about what the burden of proof needed for noncompliance is. He suggests the need for more international discourse that makes explicit the standards being applied to humanitarian concerns versus security violations.

A second result of not having an international agreement on "first-order" compliance determinations is that there is no agreement on what type of information should be used as evidence in compliance assessments and conclusions. The United States, well aware of the growing unwillingness to rely on nationally collected intelligence, has been trying to upgrade its own use of open source information and help multilateral organizations do the same.¹⁴ However, there is no question that the United States will rely on intelligence information for treaty monitoring, since it provides the basis for U.S. confidence in its treaty compliance assessment process. The tensions between the U.S. approach and that of other states about the use of intelligence was evident during discussions about what information could be used as the basis for a challenge inspection under the CTBT. While it was eventually agreed that states could use all relevant data collected in ways acceptable to the international community, this issue will continue to be problematic.

A third area affected by the insufficiency of the international community's discussion of compliance assessment procedures is the definition of what states consider noncompliance. A state could define noncompliance in terms of any of the following five categories of violations, each of which has an associated desired national and international response:

- 1. minor technical or inadvertent problems,
- 2. different interpretations or gaps in treaty language,

- 3. significant, detected, overt violations,
- 4. significant, detected, but covert violations, and
- 5. suspected covert violations of possible significance.

Coming to some agreement about which activities deserve serious review and which are minor would appear to be an obvious first step. However, given the lack of coordination of the different national approaches to this definitional issue, it is a step that is often missing in discussions at international implementing organizations.

Any violation has the potential to be serious since even a minor technical compliance problem may just be the "tip of the iceberg." Such was the case in the North Korean situation in which Pyongyang, having signed the NPT in 1985, did not finalize its safeguards agreement with the IAEA until seven years later, despite a treaty requirement to have developed such an agreement with the IAEA within 18 months. Little was done to compel North Korea to comply with that provision. By the time the IAEA member-states took notice, North Korea already had operated its nuclear reactor and gone through at least one reprocessing cycle without any safeguards in place. 15 Under the Reagan administration, concern that the Soviets could not be trusted meant that all compliance issues were addressed with almost equivalent intensity. Any violation by the Soviet Union, whether minor or not, was seen as significant. While this American standard has been modified somewhat by the understanding that verification efforts are geared to deter the development of "militarily significant" ¹⁶ capabilities, the scope of what is to be reviewed as a significant violation remains ambiguous both on the national and international level.

The immediate fallout of this lack of clarity is that states, relying on different standards of evidence, types of information, and varying definitions of "significant" noncompliance, do not easily reach agreement on how to address proposed compliance issues. Lack of agreement means lack of response. As Ali's article on chemical weapons use during the Iran-Iraq War demonstrates, the international community's weak response to Iraq's violation of its obligations under the Geneva Protocol exacerbated the situation. This lack of effective enforcement and response to possible violations lowers confidence in the nonproliferation regime.

The project participants concurred that while focus needs to be placed on the enforcement phase, determining what, if anything, will affect the behavior of recalcitrant non-compliers is increasingly difficult. Some of these problems in turn result from the lack of consensus about the process of reaching judgments about noncompliance. States object to the lack of transparency, weak evidentiary base, political bias, and over reliance on intelligence in compliance assessments; many use these issues as reasons for being unable to act forcefully. They are convenient excuses for doing nothing. Thus, developing a more widely accepted international approach to reviewing compliance questions is critical to developing the strong international base needed to address effectively significant compliance problems and to produce responses that yield results.

PROJECT'S RECOMMENDATIONS FOR ENHANCING ARMS CONTROL COMPLIANCE

Recognizing that reaching clear-cut compliance determinations and acting collectively on them may be difficult in today's world, participants in the project stressed the need for states to develop innovative ways to contain the threat posed by noncompliance, change noncompliant behavior, and address its deeper roots. To meet these needs, one idea that emerged from project discussions was the development of multifaceted packages that integrate incentives to change noncompliant behavior and disincentives to end continuing troubling activities. These "packages" should include economic and political items and may involve coordination of activities at the bilateral, regional, and international levels.

Such a "package" deal has already been developed and is being implemented with North Korea under the Agreed Framework. North Korea's long- and short-term energy needs were addressed in exchange for its commitments to close down specific nuclear facilities of concern, permit the removal of spent fuel, and work with the IAEA to address safeguards problems. The hope is that by the time the Agreed Framework is completed, North Korean motivations and norms will have moderated and changed. Whether this package will work ultimately remains to be seen. What is clear, however, is that for these kinds of packages to work, all sides have to pursue them aggressively and honestly.

Participants to the project also agreed on the need to develop interest on the international level in the compliance issue in general and the compliance assessment process in particular. Since states may be sensitive to discussing these issues openly, it will likely be necessary to initiate an international dialogue on compliance with nongovernmental officials and experts. Engaging a broader spectrum of states and individuals via a "Track II" effort would provide the basis for moving to activities that involve government and international officials. Eventually, states and international organizations must address these compliance issues directly, but for the moment, just increasing the international discourse and attention given the compliance determination process is a critical first step to building international support.

Third, even as such a Track II initiative is going on, participants believed states should initiate their own activities that result in more collaboration on compliance determination issues. At first these interactions might involve just exchanging information about how they examine compliance issues and what standards of evidence they aim for; eventually states might share intelligence. As part of ongoing bilateral discussions, states should review a variety of significant compliance issues with each other and begin to establish the basis for later support for enforcement actions should they become necessary. In addition, the United Nations Security Council might undertake an annual review of compliance with multilateral arms control treaties. It might also provide technical assistance to countries interested in improving their abilities to assess compliance matters.

A fourth recommendation that surfaced during the project was that governments should engage their publics more and earlier about compliance issues. In democracies such as the United States, it is important for the public to have realistic expectations about exactly what can be accomplished on the international level in the area of compliance. For example, not all violations are equivalent, with some perhaps not being worth the political and economic costs involved in responding to them. Educating the public about the new complexities and diversities of the post-Cold War era, especially as they relate to addressing proliferation threats around the globe, will provide the public with a more sophisticated understanding of the limitations of international and national efforts to determine noncompliant behavior and thus the difficulty in responding in a clear-cut manner. It would also help publics recognize that choices often need to be made about when and how compliance issues are pursued.

In addition to dealing directly with the arms control compliance determination process, project participants debated a final recommendation relating to the larger arms control agenda. In particular, participants discussed whether it may be time to slow down the arms control process and concentrate on strengthening the existing foundation. While many experts may be moan the slow pace of today's arms control agenda, perhaps it should be seen as a blessing in disguise. The delay in developing new arms control initiatives and moving ahead on negotiating new agreements provides an opportunity to focus on an already over-crowded arms control agenda and to develop the political will and consensus needed to implement treaties effectively. Given the limited resources available for arms control activities and the uncertain political will to implement effectively what already has been negotiated, increasing the burden on an already overloaded system may cause it to falter if not crash.

The key to pursuing arms control compliance issues successfully is patience. It may require accepting that the state violating the treaty may never admit guilt and may appear to be rewarded for its bad behavior. While no one wants to create incentives for noncompliant behavior, it makes more sense to contain and eventually eliminate noncompliant activities through "package deals" than either to ignore the problem or impose ineffective sanctions against the state.

Arms control treaties and nonproliferation commitments are about enhancing each state's national security by lessening the threat. But it is not in the negotiation of an agreement or its specific provisions, however well crafted they may be, that the work of arms control and nonproliferation is accomplished. No arms are controlled and no proliferation halted until agreements are implemented. To have confidence the threat has been diminished, compliance must be verified and significant noncompliance identified and addressed.

A bottom-line assessment of the project is that if compliance issues are not addressed effectively, the entire nonproliferation and arms control regime may be at risk. The possibility then increases dramatically that states will more and more feel they have to find their own means to protect themselves, rejecting international norms and legal obligations against weapons of mass destruction and opting instead for unilateral military capabilities. Thus, assuring compliance with arms con-

trol and nonproliferation treaties must be seen as the responsibility of all states and recognized as an important priority by all leaders of the world.

- ¹ We have sought to capture the sense of those involved in the various discussions and deliberations for this project, but we are alone responsible for the specific views and recommendations expressed in this article.
- ² Charles C. Flowerree, "On Tending Arms Control Agreements," *Washington Quarterly* 13 (Winter 1990), p. 199.
- ³ U.S. Arms Control and Disarmament Agency, "Remarks of the Honorable John D. Holum, Director, U.S. Arms Control and Disarmament Agency to a Conference Co-Sponsored by the Center for National Security Law and the ABA Standing Committee on Law and National Security," June 10, 1994 (Washington, D.C.: Office of Public Affairs, 1994), p. 7.
- ⁴ Richard A. Falkenrath, "Resolving the CFE Flank Dispute," Arms Control Today 25 (May 1995); Colonel Jeffrey D. McCausland, "NATO and Russian Approaches to 'Adapting' the CFE Treaty," Arms Control Today 27 (August 1997); Joseph P. Harahan and John C. Kuhn, III, On-Site Inspections Under the CFE Treaty (Washington, D.C.: U.S. Department of Defense, 1996); U.S. Arms Control and Disarmament Agency, Threat Control Through Arms-Control Annual Report to Congress (Washington, D.C.: U.S. Arms Control and Disarmament Agency, 1995); U.S. Arms Control and Disarmament Agency, Threat Control Through Arms-Control Report to Congress (Washington, D.C.: U.S. Arms Control and Disarmament Agency, 1994).
- ⁵ Gregory G. Govan, "On-Site Inspection as a Verification Tool," in *Old Issues and New Strategies in Arms Control and Verification* (Amsterdam: VU University Press, 1995); Patricia Bliss McFate, Douglas A. Fraser, Sidney N. Graybeal, and George R. Lindsey, *The Converging Roles of Arms Control Verification, Confidence-Building Measures, and Peace Operation: Opportunities for Harmonization and Synergies* (Canadian Department of Foreign Affairs and International Trade, 1994); *Report of the Secretary-General*, United Nations General Assembly, fiftieth session, agenda item 59, September 22, 1995; Richard C. Davis, Lewis A. Dunn, Sidney N. Graybeal, Ralph Hallenbeck, Patricia Bliss McFate, and Timothy Pounds, *Arms Control Verification: Looking Back and Looking Ahead* (prepared for the Policy and Technical Analysis Division Office of Arms Control and Nonproliferation, Department of Energy, Contract, June 22, 1993).
- ⁶ Israel is an example of a country that has recently become more involved in multilateral arms control treaty negotiations.
- ⁷ An example of where such discussions occurred is the CTBT negotiations, see: Jozef Goldblat, "The CTBT Negotiations," *UNIDIR Newsletter-Special Issue* (UNIDIR, Number SI/96); Stephen J. Ledogar, "Concluding the Negotiations," *Disarmament: A Periodic Review by the United Nations* 18 (1995), pp. 139-152; "Towards a Nuclear Test Ban Treaty," *NATO Review* (November 1996), pp. 26-30.
- ⁸ The U.S. intelligence community unfortunately reacted too quickly with an early assessment that made this event appear to be a low-yield nuclear test by the Russians, which would have violated the Threshold Test Ban Treaty and the CTBT that Russia had at that time signed but not yet ratified. This assessment was leaked and used to justify criticisms of Russian behavior and the CTBT. Eventually, a revised assessment was released quietly that reflected the likelihood that this event was a seismic one located offshore in the proximity of the Russian test site. Gregory van der Vink, Jeffrey Park, Richard Allen, Terry Wallace and Christel Hennet, "False Accusations, Undetected Tests and Implications for the CTB Treaty," *Arms Control Today* 28 (May 1998).
- ⁹ Department of Defense, Office of the Secretary of Defense, *Proliferation: Threat and Response* (Washington, D.C.: U.S. Government Printing Office,

- 1996); Combating Proliferation of Weapons of Mass Destruction, Report from the Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction, Pursuant to Public Law 293, 104th Congress, July, 1999.
- ¹⁰ Harald Müller, "Compliance Politics: A Critical Analysis of Multilateral Arms Control Treaty Enforcement," *Nonproliferation Review* 7 (Summer 2000).
- ¹¹ Rodney W. Jones and Mark G. McDonough, *Tracking Nuclear Proliferation: A Guide in Maps and Charts, 1998* (Washington, D.C.: Carnegie Endowment for International Peace, 1998), pp. 169-184; David Albright, "An Iranian Bomb?" *Bulletin of the Atomic Scientists* 25 (July/August 1995), pp. 21-26; "IAEA: Iran's Nuke Program is Peaceful," Middle East Newsline (March 24, 2000), <www.menewsline.com>.
- ¹² "The CWC at the Two-Year Mark: an Interview with Dr. John Gee," *Arms Control Today* 29 (April/May 1999), pp. 3-9.
- ¹³ Serguei Batsanov, "Chemical Weapons Convention En Route to Entry Into Force," *Chemical Weapons Convention Bulletin*, No. 27 (March 1995); "Defining Chemical Weapons the Way the Treaty Does," *Chemical Weapons Convention Bulletin*, No. 29 (September 1995).
- ¹⁴ Lothar Wedekind and James Larrimore, "Symposium on International Safeguards: New Chapters Open," *IAEA Bulletin* 39 (December 1997).
- ¹⁵ Leon V. Sigal, "Averting a Train Wreck With North Korea," *Arms Control Today* 28 (November/December 1998), pp. 11-15.
- ¹⁶ The term "militarily significant" varies from treaty to treaty and probably fluctuates over time and context. An example of such disagreements can be found in: U.S. Senate, Committee on Foreign Relations, *START II Treaty*, 104th Cong., 1st sess., December 15, 1995, pp. 29-30.