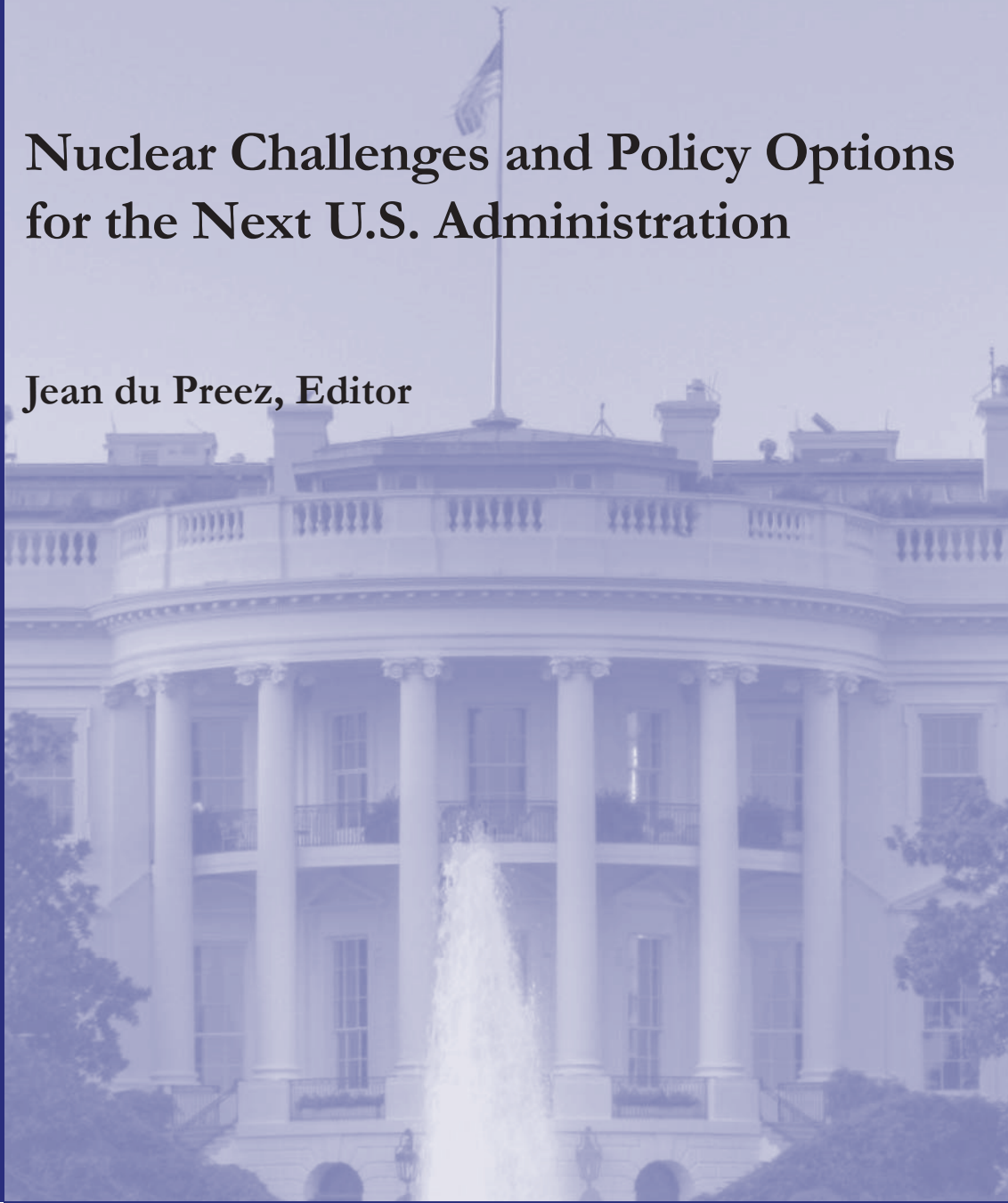


Occasional Paper No. 14

Nuclear Challenges and Policy Options for the Next U.S. Administration

Jean du Preez, Editor



**MONTEREY
INSTITUTE**
OF INTERNATIONAL STUDIES
An affiliate of Middlebury College



James Martin Center for
Nonproliferation Studies

JAMES MARTIN CENTER FOR NONPROLIFERATION STUDIES

The James Martin Center for Nonproliferation Studies (CNS) strives to combat the spread of weapons of mass destruction by training the next generation of nonproliferation specialists and disseminating timely information and analysis. A research center at the Monterey Institute of International Studies (an affiliate of Middlebury College), CNS is the largest nongovernmental organization in the United States devoted exclusively to research and training on nonproliferation issues.

For more information about CNS, visit cns.miis.edu.

James Martin Center for Nonproliferation Studies
Monterey Institute of International Studies
460 Pierce St., Monterey, CA 93940, U.S.A.
Tel. +1 (831) 647-4154; fax +1 (831) 647-3519; e-mail: cns@miis.edu

Editor Jean du Preez **Production** Catherine Auer

Policy recommendations, statements of fact, and opinions expressed in this Occasional Paper are the responsibility of the authors and do not imply the endorsement of the James Martin Center for Nonproliferation Studies or the Monterey Institute of International Studies.

ISBN 978-0-9798703-3-0 (PDF)

© Monterey Institute of International Studies, December 2008

Cover photo: © Jason Burmeister, Creative Commons Attribution License.

Nuclear Challenges and Policy Options for the Next U.S. Administration

Jean du Preez, Editor

James Martin Center for Nonproliferation Studies

Occasional Paper No. 14

December 2008

CONTENTS

FOREWORD	iii
INTRODUCTION	v
North Korea: Are We on the Right Path? <i>Charles L. (Jack) Pritchard</i>	1
Iran: Options for the Next Presidency <i>Thérèse Delpech</i>	5
The Syrian Proliferation Threat <i>Leonard S. Spector</i>	11
Dealing with the Outliers <i>Sverre Lodgaard</i>	17
Preventing further Defections: Early Warning Indicators and Disincentives <i>Paul Meyer</i>	25
Countering the Threat of Nuclear Terrorism <i>William C. Potter</i>	31
Building P-5 Cooperation on Nonproliferation <i>Robert Einhorn</i>	37
U.S.-Russian Relations on Nonproliferation after the Georgia Crisis: A Skeptical (Re-) Engagement or an (Un-) Happy Divorce? <i>Vladimir Orlov</i>	43
U.S.-Russia Cooperation on Iran: Aftermath of the Summer War in Georgia <i>Rose Gottemoeller</i>	51
Sino-U.S. Relations: Dealing with a Rising Power <i>Jing-dong Yuan</i>	59
Progressive and Systemic Steps: Short- and Medium-Term Goals <i>Harald Müller</i>	65
Taking Disarmament Seriously: Prospects for Changing Strategic Doctrines <i>Linton F. Brooks</i>	71

Prospects for Changing Strategic Doctrines <i>Nikolai N. Sokov</i>	75
Cooperative Security: The Importance of Regional and Other Security Arrangements—Pointers for a New Administration <i>Nabil Fahmy</i>	79
The NPT Strengthened Review Process: Avoiding a Perfect Storm Fifteen Years Later <i>Jean du Preez</i>	87
Strengthening the NPT, 2010 and Beyond: Restoring Trust and Cooperation—What Will It Take? <i>John Simpson</i>	95
CONTRIBUTORS	101
ABBREVIATIONS	105

FOREWORD

DURING THE ALMOST two year run-up to the November 2008 U.S. presidential election, it became clear that the new president and his administration would face a number of serious proliferation and arms control challenges as soon as they assumed office. These challenges include, but are not limited to, continued fears that Iran is pursuing a nuclear weapons capability, the failure to ensure that North Korea's nuclear weapons program is verifiably reversed, and concerns over Syria's secretive nuclear activities. Other nuclear-related challenges include ways to meet growing global energy requirements, including by means of nuclear energy, while ensuring that this so-called nuclear renaissance does not contribute to further proliferation of nuclear weapons and related technologies. The recent agreement by the Nuclear Suppliers Group (NSG) to make, at the behest of the United States, a country-specific exception to allow nuclear cooperation with India, a non-member of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), has led to widespread concerns that this double-standards approach undermines the global nonproliferation regime. At the same time, many countries believe that the United States has over the past eight years reneged on its "unequivocal undertaking" to eliminate its nuclear arsenal as part of a number of nuclear disarmament-related promises made during the 2000 NPT Review Conference. Moreover, the deteriorating U.S. relationship with Russia along with China's growing economic and military might create additional challenges for the new administration. Equally significant and challenging is the urgent need for the United States to regain the trust of the international community if it is again to play a leadership role in pursuit of global nonproliferation, arms control, and disarmament objectives.

While presidential candidates Barack Obama and John McCain both stated their positions on nuclear nonproliferation and arms control during their campaigns, their plans on how to effectively deal with severe proliferation challenges were not prominently featured during any of the presidential or vice presidential debates. However, following the November 4, 2008 election, there is renewed hope nationally and internationally that the new Obama administration will bring about positive changes to U.S. nonproliferation and arms control policies.

The nature of these changes and the timing of their implementation are still unclear. Although it is unlikely that the new administration will take dramatic steps to meet these challenges, given the current global and domestic economic crises, there are a number of urgent steps that could be taken. As such, the Obama administration should send a clear and unambiguous message to the international community, especially its NPT partners, that the United States respects its nuclear nonproliferation and disarmament commitments; that it will seek Senate approval for U.S. ratification of the Comprehensive Nuclear-Test-Ban Treaty; that it will engage Russia in negotiating a successor treaty to START I; and that it will re-engage in other nuclear disarmament-related initiatives. Although the challenge of how to deal with both Iran and North Korea will be difficult, there is likely to be a greater appreciation for U.S. concerns, especially from countries critical of past U.S. policies, if the Obama administration sends early and positive signals after the inauguration.

In order for the new administration to recast the United States as a leader in the nonproliferation and arms control area, it will have to regain the confidence of the international community at large. The campaign

message of “change can happen—yes it can” also may resonate with respect to the future of the NPT, and in particular the outcome of the 2010 Review Conference, but only if the United States reviews and significantly modifies many of the policies it devised and implemented over the past eight years. U.S. national security—and that of other nations—is closely tied to a healthy and vibrant nuclear nonproliferation regime, one in which nuclear weapons play an increasingly diminished role.

Three months before the November 2008 U.S. presidential election, the Monterey Nonproliferation Strategy Group (MNSG), an international body of approximately two dozen experienced policy makers and prominent analysts, convened to consider nuclear challenges and policy options for the next U.S. administration. This session was part of an ongoing series of MNSG meetings aimed at identifying realistic and achievable options as groundwork for building consensus or near-consensus on critical issues threatening the NPT. This Occasional Paper comprises a selection of papers presented by participants in their personal capacity. These papers contain a rich menu of ideas and proposals for possible consideration by the Obama administration.

Jean du Preez

Director, Nuclear Nonproliferation and Arms Control Project
James Martin Center for Nonproliferation Studies

INTRODUCTION

WITH THE SUPPORT of the Carnegie Endowment for International Peace and the Norwegian Ministry of Foreign Affairs, the Monterey Nonproliferation Strategy Group (MNSG) has focused its work over the past two years on specific issues that have a direct bearing on the strength and vitality of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). To date, the strategy group's agenda has included ways and means to eliminate the threat of fissile material; renewed commitments and new approaches to verification of and compliance with the nuclear nonproliferation regime; practical and achievable nuclear arms reduction and disarmament; the establishment of a nuclear-weapon-free zone in the Middle East; and nuclear challenges and policy options for the next U.S. administration.

The objective of its most recent meeting, held August 20–22, 2008 in Monterey, California, was to consider nuclear challenges facing the next U.S. administration, and to identify possible responses to these challenges. Participants at the meeting included many notable figures, some of whom have served as senior officials in past U.S. administrations. MNSG participants included Ambassador Linton Brooks (former U.S. undersecretary of energy for nuclear security), Madame Thérèse Delpech (director of strategic affairs, French Atomic Energy Commission), Dr. Lewis Dunn (senior vice president, Science Applications International Corporation), Mr. Robert Einhorn (Center for Strategic and International Studies), Ambassador Rolf Ekéus (chairman of the board, Stockholm International Peace Research Institute), Ambassador Nabil Fahmy (former Egyptian ambassador to the United States), Ms. Rose Gottemoeller (former director, Carnegie Moscow Center), Dr. Sverre Lodgaard (Norwegian Institute of International Affairs), Professor Harald Müller (director, Peace Research Institute Frankfurt), Dr. Scott Sagan (Center for International Security and Cooperation, Stanford University) and Dr. Chris Wing (Center on International Cooperation, New York University).

The group considered a number of critical proliferation concerns for the United States, such as Iran, North Korea, and Syria. It also examined how the United States should deal with NPT outlier states; types of early warning indicators and disincentives to prevent further defections; as well as means to counter the threat of nuclear terrorism and non-state actors. Given the importance of cooperation among the Permanent Five members of the UN Security Council (P-5) and the leading role of the United States to this end, the group considered how P-5 consensus on nonproliferation and disarmament could be fostered, if at all. In this context the group also considered the strategic relationships between the United States, Russia, and China. In light of the increased emphasis on prospects for nuclear disarmament, the group examined what short- and medium-term progressive and systemic steps could be taken toward this goal. Prospects for changing U.S. and Russian strategic doctrines were also considered, while the potential for strengthening U.S. institutional mechanisms related to arms control was highlighted. Given the international nuclear renaissance, the group investigated the risks involved as a result of the surge in nuclear power use and how these risks could be minimized. With regard to regional and other security arrangements, a number of “pointers” were identified for a new U.S. administration, in particular on the all-important issue of the Middle East. The group concluded its deliberations by examining challenges and opportunities to strengthen the NPT and in this context considered setting new objectives and ways to implement them as well as means to restore trust and cooperation.

* * *

North Korea: Are We on the Right Path?

Charles L. (Jack) Pritchard

THERE ARE THREE fundamental questions that have to be addressed when discussing North Korea's nuclear program. First, does Pyongyang intend to give up its nuclear weapons program and associated fissile material? Second, if it does, will it also refrain from proliferation of nuclear technology? If the answer to both questions is "yes," it makes it much easier to ascertain the answer to the third question—are we on the right path? But if the answer to either of the first two questions is "no" or "unknown," answering the third question with any degree of reliability becomes much more difficult.

Bob Gallucci, former chief negotiator of the 1994 Agreed Framework between the United States and North Korea, often tells audiences that he did not know at the time of the framework whether North Korea would ultimately turn over all of its fissile material and get out of the nuclear weapons development business. According to Gallucci, we would find out at a critical future phase of the Agreed Framework. Aspects of today's six-party talks mirror that uncertainty. We may not know if North Korea intends to abandon its pursuit of nuclear weapons until very close to the end of the six-party process.

For its part, Pyongyang has been fairly consistent in its pursuit of nuclear weapons, publicly signaling its developments along the way, with two exceptions—its denial of a highly enriched uranium (HEU) program and support to Syria in the building of a nuclear reactor designed to produce plutonium. While North Korea's pursuit of nuclear weapons has been going on for years, only recently has Pyongyang articulated its rationale for the program.

In February 2005, Pyongyang, in reaction to President George W. Bush and Secretary of State Condoleezza Rice's references to ridding the world of tyranny, announced that it had produced nuclear weapons. "The U.S. disclosed its attempt to topple the political system in the DPRK [Democratic People's Republic of Korea] at any cost, threatening it with a nuclear stick. This compels us to take a measure to bolster its nuclear weapons arsenal in order to protect the ideology, system, freedom and democracy chosen by its people. We had already taken the resolute action of pulling out of the NPT [Treaty on the Non-Proliferation of Nuclear Weapons] and have manufactured nukes for self-defense to cope with the Bush administration's evermore undisguised policy to isolate and stifle the DPRK. Its nuclear weapons will remain nuclear deterrent for self-defense under any circumstances."¹

Until this announcement, North Korea had been satisfied to let others speculate on whether it had produced nuclear weapons from its growing stockpile of plutonium. Yet its intent and attendant rationale had been clear from the beginning of its withdrawal from the NPT and the reprocessing of its spent fuel. As Pyongyang first declared to me in March 2003, shortly after the U.S. invasion of Iraq, North Korea viewed itself as a potential victim of preemptive U.S. military force and therefore decided the only credible deterrence was the development of nuclear weapons. From a U.S. perspective, the prospect of a nuclear North Korea was not in itself a credible deterrent—or at least not a short-term concern, given its inability to mate a weapon with a long-range

1. Statement from Ministry of Foreign Affairs, Pyongyang, February 11, 2005.

delivery system of any degree of reliability and accuracy. Yet from a regional perspective, a nuclear North Korea should have been a great concern to Japan and South Korea. Thus, the potential threat to a treaty ally focused initial U.S. attention on capping the North's plutonium program. But the threat that the United States should be most concerned about is the potential for North Korea to proliferate its nuclear material or technology.

State of Play

While the six-party process has focused on capping future plutonium production and going beyond the 1994 Agreed Framework to permanently dismantle North Korea's nuclear facilities, it has failed to adequately address proliferation concerns. In the post-9/11 environment, it should have been clear to Pyongyang that proliferation was a "red line" for the United States. After all, the United States went to war in Iraq over the potential of weapons of mass destruction, and the president had declared, "I will not wait on events, while dangers gather. I will not stand by, as peril draws closer and closer. The United States of America will not permit the world's most dangerous regimes to threaten us with the world's most destructive weapons."² Before the news broke that Israel carried out a military strike on a Syrian nuclear facility on September 6, 2007, most North Korea watchers would not have believed Pyongyang capable of proliferation, precisely because of the "understood" consequences. Yet proliferate is exactly what North Korea did: Pyongyang apparently weighed the risks and potential consequences and decided that it was in its interests to cooperate with Syria on a nuclear reactor.

Israel's military strike put the Bush administration in a difficult position; just eight months earlier, the administration altered its policy of the previous five years and initiated serious bilateral meetings with North Korea in Berlin. The results of the Berlin meeting were codified in the six-party process in February 2007 in the form of a phased plan called "Initial Actions for the Implementation of the Joint Statement." In this plan, North Korea agreed, among other things, to shut down and seal its nuclear facilities at Yongbyon and to provide a complete declaration of all its nuclear programs. In exchange, the United States promised to begin the process of removing the designation of North Korea as a state sponsor of terrorism. With little real progress made during most of 2007, the United States and North Korea met in Geneva to work on the specifics for completing the second phase of the February agreement. The results were again announced through the six-party process in Beijing on October 3, with Pyongyang agreeing to finish all Phase 2 work by the end of 2007—including issuing a complete and correct declaration of all its nuclear programs. In an apparent nod to U.S. concerns about its possible proliferation connection to Syria, Pyongyang committed to not transferring nuclear material, technology, or know-how.

But as more information made its way into the public domain about the North Korea-Syria connection, it became less likely that the United States would actually remove North Korea from the State Sponsors of Terrorism list. For its part, Pyongyang did not meet the end-of-year deadline to issue a declaration or finish Phase 2 work. Compounding the problem for the Bush administration was Pyongyang's refusal to address the issue of HEU or proliferation associated with Syria. Concerned about the loss of momentum at the end of Bush's final months in office, the U.S. and North Korean heads of delegation met in Singapore to work out a compromise that would allow the process to move forward.

The resulting "Singapore Deal" was a proposal that the United States would, in a secret "bill of particulars," lay out concerns about North Korea's involvement with HEU and with Syria-related proliferation. In return, Pyongyang would acknowledge the U.S. "concerns." The language is important: Pyongyang is not acknowledging it has or had an HEU program or that it was involved in helping Syria build a nuclear reactor; it is only acknowledging that the United States has such concerns. I later confirmed with Vice Minister Kim Gye Gwan in Pyongyang that North Korea still denies any involvement with either program. Even with the deal, move-

2. President George W. Bush, State of the Union Address, January 29, 2002.

ment did not take place as the United States faced serious criticism over the omission of HEU and proliferation from Pyongyang's forthcoming declaration. Ultimately, the administration reached what the North Koreans believed to be a final quid-pro-quo agreement that involved a simultaneous North Korean declaration and an announcement by Bush on June 26 that he was notifying Congress of his intent to remove Pyongyang from the state sponsors of terrorism list. Embedded in the six-party statement announcing the outline of a verification mechanism was a sentence that, on the surface, seemed to accept International Atomic Energy Agency (IAEA) participation in the verification process: "When necessary, the verification mechanism can welcome the International Atomic Energy Agency to provide consultancy and assistance for relevant verification."³ Reading between the lines, this statement should more likely be interpreted as a North Korean compromise to include a reference to the IAEA, knowing that the previous sentence in the statement requires all measures to be unanimously agreed upon—giving Pyongyang the final say on when and if the IAEA is ever involved in a substantive manner. However, amid continuing criticism, the Bush administration announced that it would not follow through with final removal from the terrorism list until Pyongyang had agreed to an appropriately comprehensive verification regime.

If proliferation were a serious concern, the administration should have ceased all six-party activities and confronted North Korea in a manner commensurate to the potential threat to U.S. national security that it represented. However, the administration did just the opposite. Secretary Rice conveyed to North Korean Vice Minister Kim Gye Gwan through former Secretary of Defense William Perry that the United States was not interested in punitive measures regarding Pyongyang's proliferation activities with Syria. This was a conscious decision to focus on the future. Israel had taken care of the past proliferation problem, and Pyongyang had promised not to proliferate in the future. The only real problem in this simple formulation is the lack of a credible deterrent based on a reasonable reaction to actual past proliferation and the lack of institutional incorporation of the IAEA in the ongoing process.

The current slow roll by both parties in agreeing to a verification protocol and removing North Korea from the terrorism list suggests little will be accomplished by the end of the Bush administration. But more importantly, it suggests that the important issue of proliferation will be left unaddressed.

Conclusion

The current path does not lead to a satisfactory resolution of nonproliferation concerns regarding North Korea. If left to play out in the manner that appears most likely, Pyongyang will maintain control over the agenda and pace of the six-party process, reinforcing concerns that it is not yet ready to move in a systematic manner to a fully verifiable denuclearization that includes transparency involving its HEU program and its proliferation activities with Syria.

Recommendations

There are several specific steps that the next administration can take to make the necessary corrections to ensure that we are on the right path.

- First, I see no substantive reason to enter into a Phase 3 negotiation over dismantlement. It would be an unnecessary waste of several years of negotiations. Both sides should move directly to what we both actually want: removal of fissile material and nuclear weapons from North Korea in exchange of normalization. As part of the condition for skipping the dismantlement phase, both parties should agree that the current status of disablement remains intact. Do we really want North Korea to continue

3. "Special Report: The Sixth Round of Six-Party Talks," Xinhua, July 12, 2008.

thinking of itself as a nuclear weapon state as we negotiate for the dismantlement of the facilities that are already shut down and disabled? It will make the final decision to give up fissile material and weapons that much harder.

- Second, renegotiate the Singapore Deal to include HEU and Syria-related proliferation activities in the North Korean Declaration. By agreeing to move directly to discussions over normalization, issues that previously were put off for the sake of momentum must now be captured as part of the normalization agenda.
- Cease NPT exceptions for Pyongyang and insist on a normal and active role for IAEA inspectors.

Iran: Options for the Next Presidency

Thérèse Delpech

ALL THE MAJOR actors of the Iranian crisis seem to be on hold until the U.S. November 2008 elections. Whether Iran will be the major foreign policy issue of the next U.S. administration is debatable;¹ Russia, Afghanistan, Pakistan, or East Asia may well present bigger challenges in the coming years. But much is at stake in Iran. It has presented an outstanding nuclear issue since the 2002 revelation of its clandestine program (a program that shakes the confidence of Turkey, Egypt, Saudi Arabia, and other Gulf States) and the discovery of its violation of its safeguards agreement with the International Atomic Energy Agency (IAEA).² Iran also represents a significant long-term problem to regional and global security: its growing regional influence (especially in Iraq); its role as oil and gas supplier; its presence in Lebanon and Afghanistan; and its ability to plan terrorist attacks in the region and beyond all make Iran a very special case at the beginning of the twenty-first century. Whether Iran continues to challenge the international system, declaring that Israel should be “wiped off the map”³ and encouraging suicide attacks, or becomes a more reasonable partner will make a considerable difference in the years and decades to come.

Whatever the expectations might be, the prospects for political change in Iran are slim: civil society faces increasing governmental repression, while religious conservatives tighten their grip on power, pushing aside both veterans who helped found the Islamic regime thirty years ago and reform-minded politicians accused of being disloyal to the revolution.⁴ The results of Iran’s March 2008 elections confirmed the conservative consolidation of power;⁵ the relationship between the Supreme Leader and the president may be more intimate than most observers believe; and the growing power of the military and paramilitary forces since 2005 does not provide grounds for optimism. The Iranian economy is essentially driven by the price of oil while basic investments are not made; although criticism of economic management is widespread in Iran from both hardline and pragmatic conservatives, it has produced little change so far (however, the current sharp decline in oil prices would allow additional international pressure to work, since the only legitimacy of the regime since 2005 is the improvement of the economy). Finally, it may be worth recalling that even the reputedly less difficult interlocutors—the so-called pragmatists, such as Hashemi Rafsanjani—would

1. When President Jimmy Carter entered office in 1977, he had several foreign policy priorities, but Iran was not one of them. When the Islamic revolution erupted two years later and the U.S. Embassy was stormed, the United States had to confront one of its worst-ever international situations in peacetime.
2. See “Implementation of the NPT Safeguards Agreement in the Islamic Republic of Iran,” IAEA, GOV/2003/75, November 10, 2003.
3. The first such public statement was made in October 2005 by President Mahmoud Ahmadinejad at a conference in Tehran, “A World without Zionism,” causing international outrage.
4. As Abbas Abdi, a political analyst in Tehran, declared: “The significance of this election lies in the fact that barring political rivals from entering elections has become an established part of political life.” See Nazila Fathi, “Iran’s Religious Conservatives Are Expected to Solidify Power at Polls,” *New York Times*, March 6, 2008.
5. This is contrary to the prediction made in a *New York Review of Books* article: “Iran’s upcoming parliamentary elections in mid-March seem likely to show a weakening of support for President Mahmoud Ahmadinejad and his allies.” See William Luers, Thomas R. Pickering, and Jim Walsh, “Solution for the US-Iran Nuclear Standoff,” *New York Review of Books*, March 20, 2008.

still adopt an uncompromising policy on the nuclear program.⁶

If this analysis is sound, what can be inferred?

First, the West makes constant mistakes regarding Iran, and this must be recognized: the Islamic revolution was not on the West's radar screen in 1979; Mohammad Khatami was not expected to win the presidency in 1997; Mahmoud Ahmadinejad was unknown before his 2005 election and—afterward—was not expected to make a real difference. Recurring and unfulfilled hopes that Iran will adopt a more cooperative behavior for social and economic reasons surface again and again in Western capitals. Such mistakes are understandable: Iran is both complex and opaque, playing erratic games, and hopes are not entirely unfounded: young people in Iran have enormous expectations and are avid for change, and Iran is far from achieving its development potential.⁷ It has huge unfulfilled economic needs. One day, reality will perhaps prevail over rhetoric and ideology. But there is little that we can do to make this happen under the present political configuration. *It is dangerous to build a policy on mistakes reflecting our wishes—triumph of reform over revolutionary spirit, irresistible power of Iran's society aspirations, Tehran's reconciliation with the West—rather than coming to grips with reality.*

Second, measure Iran's influence in the Middle East, the Gulf, Lebanon, Gaza; its agreements with Syria; its presence in Afghanistan and Central Asia; and its role in Iraq. Saudi Arabia is probably the Gulf country most worried about Tehran, although Riyadh has expressed little publicly so far on the subject. The Iranian nuclear program also casts a shadow over Egypt and Turkey. Egypt is preoccupied by Tehran extending its sphere of influence with the bomb and afraid to be drawn into a conflict between Iran and some of the smaller Gulf states. Turkey, for all its ambiguous policy concerning Tehran,⁸ will never accept a hegemonic Iran that throws its weight around thanks to nuclear weaponry. Nor will it accept a Middle East with only two nuclear powers: Israel and Iran. Concerning Iraq, an unpredicted consequence of the war is Tehran's growing influence there. At a time when his own citizens are fighting inflation, Ahmadinejad announced a billion-dollar reconstruction loan during his state visit to Iraq in March 2008. He also said foreign forces should leave Iraq immediately, hoping to still increase its influence when this will eventually be done. In Afghanistan,⁹ Iran has conflicting interests: ensuring stability of a neighboring country and destabilizing U.S. troops, which explains Iran's contradictory policy of helping declared enemies (the Taliban and Al Qaeda) up to a certain point. *Limiting Iran's ability to interfere in such a sensitive zone should be a major goal of any sound policy.* This means preventing the acquisition of the most destructive weapon available.

Third, we must fully realize what it would mean to deal with a nuclear-armed Iran. An Iranian bomb would strengthen the more radical elements in Iran who would be buoyed by nuclear success; it would extend Iran's sphere of influence; it would expose the weakness of its neighbors; and it could result in a Middle East with a number of nuclear actors that would make it utterly unpredictable and even unmanageable. A nuclear Iran would jeopardize the fragile hopes of any virtuous circle in the region, and possibly the entire nonproliferation regime, which would not be able to withstand an assault of this magnitude in the most strategically sensitive part of the world. Tehran may not necessarily use the bomb to destroy Israel, as it claims, but who wants to test that hypothesis in the real world? And even if such is the case, an Iranian bomb would by its own existence be an unacceptable coercion on neighbors and on powers present in the region. In a situation in which Iran does not even acknowledge its military program, no one can describe the command and control

6. Hashemi Rafsanjani accelerated the Iranian nuclear program in 1989 after the death of Ayatollah Ruhollah Khomeini, at a time when Iran's war with Iraq was terminated.

7. A public opinion poll across Iran before the March 2008 elections showed that Iranians continue to favor better relations with the West, would like to elect their Supreme Leader in a free vote, and are dissatisfied with Ahmadinejad's economic policies. See survey conducted by telephone by the Center for Public Opinion/Terror Free Tomorrow and D3 Systems.

8. Turkey, a member of NATO and a U.S. ally, maintains strong diplomatic and economic ties to Iran.

9. Since 2002, Iran has increased its influence in western Afghanistan by distributing funds and investing in infrastructure.

or safety mechanisms that Tehran has in mind. This will greatly increase the fear that something might go wrong inadvertently or, in a time of crisis, possible misunderstandings—the very situation nuclear experts dread. Realism would therefore counsel to ask the following questions: *What could be expected from Tehran with the bomb, taking into account what it already does without it? And are the risks tolerable?* President-elect Barack Obama answered the last question with a clear “no.”

Fourth, we must understand the real conditions of a deal with Tehran. If Iran, as the December 2007 National Intelligence Estimate (NIE) contends,¹⁰ is to be considered a country where “decisions are guided by a cost-benefit approach,” a possible solution would be to offer yet more significant economic and security incentives to get a better response on the nuclear program. But this hypothesis is not warranted by facts. Unless Tehran faces a situation of extreme danger (as in 2003, for instance, when U.S. forces entered Baghdad), the margin available for *effective negotiation*—as opposed to discussions allowing Iran to gain time—is slim. At no point since 2003 did the Iranian negotiators, even under Khatami, ask for more or different economic and security incentives.¹¹ With the Europeans, the negotiations centered on the nuclear issue, even though economic and security discussions took place. Iran turned down the Russian proposal one day after it was made; it did not even contemplate the offer presented in August 2005 by the Europeans, and refused fairly quickly those presented in June 2006 and in July 2008 by Javier Solana on behalf of France, Britain, Germany, Russia, China, and the United States.¹² One can always contend that not enough has been offered. But is it true? Would any other offer of the same kind, or even more substantial, make any difference? The European experience during five years of negotiations teaches the following: *the only attainable deal with Iran would be to accept Iranian nuclear weapons and get some restraint in Iraq, Lebanon, and/or Afghanistan, a deal that will—or will not—be implemented once Iran has nuclear weapons.* Would that be a good deal—or even an acceptable one?

Fifth, acknowledge that even if a deal with Iran is possible, the potential discontinuities that could derail cooperation are plenty. Iran might not be seriously interested in cooperation for political reasons. Having in mind the domestic situation more than the international scene, the current regime’s survival seems to rest on the exploitation of crises and international isolation. The victory of the Iranian conservatives is not conducive to more cooperation with the West: it would ruin the very system the leadership tries to preserve, while an external enemy may explain economic failure, bolster nationalism, and prevent political change. Even when negotiations took place in a better environment (i.e., in 2003 and 2004), their goal seem to have been gaining time unimpeded rather than developing cooperation. This is at least what experience suggests.¹³ Finally, even partial cooperation may be derailed by constant changes in language and behavior. It makes surprises almost certain in the course of any negotiating process. If Iran has learned a few things from North Korea,¹⁴ one of them is that *non-linear behavior is deeply disturbing for Western diplomacy and deeply confusing for Western strategists.*

Sixth, continuing to try to prevent a nuclear-armed Iran remains the only sensible option. We can pursue this in various ways.

10. The December 2007 U.S. National Intelligence Estimate did not only present a reevaluation of the Iranian nuclear program (the weaponization part would have been “halted” in the fall 2003), it also took a position on some political aspects of the crisis, namely that the leadership could be influenced by external powers.

11. In particular, contrary to some assertions, Tehran made clear that it would never believe security assurances offered by either the Europeans or even by the United States.

12. The very day the offer was made, activities were resuming at both Isfahan and Natanz, signaling Iran’s refusal to suspend its conversion and enrichment activities.

13. A number of official Iranian statements make the point that what was needed with negotiations was time. For instance, in December 2004, Iranian nuclear negotiator Sirus Nasseri said: “They [the Iranian authorities] needed to gain time to see certain projects going through unimpeded.” *Shargh* newspaper, December 5–6, 2004.

14. Iran has received from North Korea ballistic missile technology and components and may have shared nuclear technology with Pyongyang.

Sanctions. UN Security Council (UNSC) Resolution 1803 contains more sanctions that hurt the Iranian regime,¹⁵ but measures adopted so far are unlikely to produce significant divisions or even discussions within the Iranian leadership.¹⁶ Another UNSC resolution that is more substantial on refined products could produce results. Is it realistic? No, particularly after the crisis in Georgia. Concerning China, it is doubtful that Beijing would oppose a proposal already agreed by Moscow. And Beijing may also be willing to embrace more responsibility for upholding nonproliferation norms. But an agreement on refined products would be the most difficult to achieve (just below the impossible ban on energy exports), because Beijing is Iran's number one trade partner, particularly interested in energy: Sinopec, China's largest oil refiner, has concluded a multimillion-dollar deal in addition to the "deal of the century" for natural gas from Iran's North Pars gas field. In sum, sanctions are still worth trying, even on an essentially European/U.S. front, particularly as Iranian authorities face internal pressure, but without too many illusions concerning Russian and Chinese contributions.

A deal. There remains the stubborn notion that more incentives would somehow produce the desired results. The analysis above suggests that this may be wrong. The worst option for the next president would be to start another negotiation with Iran. It would give him a bad start in his foreign policy (failure: see North Korea), and it would produce only one assured result: giving more time to Iran's nuclear program. However, if a new round of negotiation is decided by the next administration, as seems likely, the worst-case scenario would be to do it alone (as opposed to doing it with allies), to allow an open-ended discussion (as opposed to a time-bound one), and to take time to start it (as opposed to doing it right away).

Press for political change in Iran. This is an excellent idea that lacks concrete content and strategy. It sounds nice to recommend a policy slowly compelling the leadership "to transcend the ideological gaps that have alienated it from large sections of its population."¹⁷ The problem is simply how to achieve this result. Experienced Iranians recognize that they frequently do not understand themselves how the political power works in their own country. So how could we? As a matter of fact, external pressure on Iran has been very limited. For instance, in 2004 and 2005, the policy vis-à-vis Iran was one of great caution, in order not to allow the conservatives to use external pressure in the presidential electoral campaign. And the result was ... Mahmoud Ahmadinejad, an ultraconservative. This should not prevent efforts to address Iranian civil society, which remains the first victim of the repressive and ineffective policy conducted by Tehran: if Iran suffers while its neighbors benefit from peaceful nuclear cooperation, the regime should be increasingly hard-pressed to explain why. Three decades after the Islamic revolution, economic challenges may lead Iran to seek practical solutions, abandon ideology, and meet the most important expectations of its population: containing inflation and developing employment. But can these goals be attained before the bomb is built? Who would be ready to bet on that?

The military option. If the scenario of military strikes is excluded, it will not necessarily mean that international pressure will stop, as the follow-up of the 2007 U.S. NIE has shown.¹⁸ UNSC Resolution 1803 was still adopted in March 2008, with more sanctions and only one abstention (Indonesia). But with this important option off the table, Iran will feel free to continue defying the international community in some way, shape, or form, particularly if effective sanctions are not adopted (see the earlier point on refined products). Iran's nuclear military program will go on. The world may well have to decide—and the West in particular, its reluctance notwithstanding—whether it prefers a nuclear-armed Iran or a military operation. It is doubtful that the American people will allow another military operation at a time when so much is going wrong in Afghanistan, Pakistan, and Iraq.¹⁹ That said, if a military action means trouble for months or even years, an Iranian bomb

15. The measures extend travel and financial curbs on named individuals and companies.

16. The sanctions adopted so far have an impact on the economy but no effect on policy.

17. Ray Takeyh, "Re-imagining US-Iranian Relations," *Survival* 44 (Autumn 2002), p. 24.

18. The NIE was widely interpreted as a way of effectively taking U.S. military action off the table.

19. Senator John McCain is famous for having declared, "There is only one thing worse than military action against Iran and that

would certainly mean trouble for decades. Therefore, it makes a lot of sense to think twice before the choice is made. *If there is one region where deterrence should not be tested, it is the Middle East.* And Iran has to worry as well, because if it goes nuclear, not only conventional but also nuclear military buildups will take place in the region, essentially as a counter-reaction to its provocative policy.

Conclusion

There are situations in which no good option is available. Iran is one such situation today. Iran defies both containment and engagement, two approaches that are easy to advocate but difficult to carry out. And deterrence is not easy with a country that encourages suicide attacks. Under these circumstances, failing to make a decision is tempting, but is hardly a policy. Time is not on our side: Iran had assembled hundreds of advanced centrifuges by November 2008,²⁰ reflecting its intention to speed up uranium enrichment, and fissile materials remain the most important missing link of its nuclear military program.²¹ The most important point for the next administration is to decide quickly—with the European allies in the first place—how best to prevent Iran from getting the bomb, avoiding the adoption of a comprehensive agenda that will only allow Tehran to gain more time.

is a nuclear-armed Iran.” This choice is still before us.

20. These centrifuges, more sophisticated than the thousands already running underground at the same site, had been assembled but were not running at the beginning of April 2008. The existence of advanced, undeclared centrifuges elsewhere in Iran is an open question.

21. It is difficult to imagine more unambiguous evidence that Iran has made substantial progress in other areas related to weaponization than its Project 110 (spherical device), Project 111 (missile re-entry vehicle), and Project 3.12 (detonating system), to name only a few of those presented by Olli Heinonen, IAEA director of safeguards, on February 25, 2008. Even if weaponization had been stopped by 2003 and not restarted since then, as the U.S. NIE contends, what was exactly the point reached by then?

The Syrian Proliferation Threat

Leonard S. Spector

THE UNUSUAL TECHNOLOGICAL circumstances that made the apparent Syrian nuclear weapons program possible, and the motivations that inspired it, appear to be changing—in some respects, dramatically. This makes it unlikely that Syria will renew a clandestine bid for nuclear arms. But countervailing factors can also be seen that leave the issue in some doubt. An alternative strategy of developing a civil nuclear infrastructure in full compliance with international rules—but subject to use for nuclear weapons at a future date—may thus look attractive to Damascus. It is far from certain, however, whether supplier states will be willing to support this option.

Background: Syria's Apparent Nuclear Weapons Program

On September 6, 2007, Israeli jets destroyed a facility in Syria near the town of Al Kibar.¹ Although some press reports described Al Kibar as housing a nuclear facility of some kind, a news blackout by Israel, Syria, and the United States that followed the Israeli bombing left the nature of the site unresolved. On April 24, 2008, the U.S. Central Intelligence Agency (CIA) released a video and the text of an off-the-record briefing to journalists on the Al Kibar facility.² According to the CIA, Al Kibar housed a nuclear reactor built by Syria with North Korean assistance.

The CIA stated that North Korean-Syrian nuclear cooperation—presumably with a military focus—began “probably as early as 1997” and that construction on the Al Kibar reactor began in 2001.³ The reactor, according to the agency, was modeled on North Korea’s reactor at Yongbyon, which produced plutonium for that country’s nuclear weapons program and was “nearing operational capability” when it was destroyed. The CIA also stressed that Syria had taken extraordinary steps to disguise the facility in an effort to prevent its discovery by outsiders and, after it was bombed, razed its ruins, in an apparent attempt to prevent any subsequent inspection from determining the nature of the plant. The agency also underscored that the facility was not configured for the production of electricity and was ill suited for traditional nuclear energy research purposes, indicating that it was apparently built for the production of plutonium, which most observers presume was to be used for nuclear weapons.

However, the CIA stated that it had not found a plant for fabricating the reactor’s natural uranium fuel and did not identify any other source of fuel for the facility, such as supply from North Korea. This raises questions

1. In its recent report on the Syrian nuclear program, the International Atomic Energy Agency referred to the site attacked by Israel as being near the Syrian town of Dair Alzour. Because observers have used “Al Kibar” to refer to the site for the past year, making this the more familiar place name, it will be used here.

2. See Office of Director of National Intelligence, “Background Briefing with Senior U.S. Officials on Syria’s Covert Nuclear Reactor and North Korea’s Involvement,” April 24, 2008, dni.gov/interviews/20080424_interview.pdf.

3. Ibid.

as to how close to becoming operational the facility may have been.⁴

In addition, the CIA stated that it had not identified a “reprocessing” plant for extracting weapons-usable plutonium from spent fuel taken from the Al Kibar reactor, an essential step in the production of nuclear weapons. Lacking evidence of a fuel fabrication facility and a reprocessing plant, the agency declared that it had only “low confidence” that Syria was pursuing a nuclear weapons program.⁵ At this time, however, this appears to be the most plausible explanation for Syria’s construction of the reactor.⁶

Damascus has denied that the Al Kibar site housed a nuclear facility.⁷ Syria is a party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), under which it has pledged not to acquire nuclear weapons and to place all of its nuclear activities under inspection by the International Atomic Energy Agency (IAEA). The IAEA visited the Al Kibar site in late June 2008 but was barred from visiting other sites suspected of housing nuclear fuel cycle installations. The agency has not yet reported on its findings from the June visit. In early August 2008, Syria rejected the IAEA’s request to return to the Al Kibar site.⁸

If one assumes that the Al Kibar reactor was being built to support a nuclear weapon program, construction of the facility with North Korean help was fundamentally at odds with Syria’s basic obligation under Article II of the NPT not to develop nuclear arms. Syria’s construction of the reactor also appears to directly violate the additional prohibition of Article II that non-nuclear weapon state parties, such as Syria, undertake, *inter alia*, “not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.” The failure to declare the project to the IAEA also appears to be a clear violation Syria’s agreement with the agency regarding the inspection (safeguarding) of the country’s nuclear facilities. Under that agreement, Damascus was obligated to declare any new facility to the agency “as soon as the decision to construct” or a decision to “authorize construction” of the new facility was taken.⁹

How Syria planned to fuel its reactor and separate plutonium created in that fuel constitute two of the key unanswered questions concerning Syria’s nuclear activities. If it is presumed that Syria was, indeed, secretly seeking to develop nuclear arms, then an explanation must be provided as to how it intended to achieve this end. One hypothesis is that the necessary additional facilities to permit the production of plutonium for weapons had been or were being built in Syria but have yet not been discovered. An alternative hypothesis is that North Korea was going to provide the fuel for the initial loading of the reactor using excess fresh fuel

4. According to one knowledgeable source interviewed by the author, the 1,000–2,000 tons of highly pure graphite needed to surround the unit’s uranium fuel had not been delivered to the site by the time of the Israeli bombing. This would have placed the reactor still further from becoming operational. (Confidential interview, Washington, DC, June 2008.) It has not been possible to confirm this assertion.

5. For a discussion challenging the CIA’s “low confidence” finding as inconsistent with the other evidence adduced by the agency concerning the reactor, see, Leonard S. Spector and Avner Cohen, “Cloak and Stagger,” *Los Angeles Times*, May 4, 2008.

6. Although the location of the plant would strongly indicate that it was part of a secret Syrian nuclear weapons program, a June 2008 story in the German weekly *Der Spiegel* cites “intelligence documents” as indicating that the unit was, in fact, part of a multinational nuclear weapons effort led by Iran, in which Syria and North Korea were collaborating. “Syria Turning Toward the West? Assad’s Risky Nuclear Game,” *Spiegel Online News*, June 23, 2008; see also, Ian Black, “Syria Planned to Supply Iran With Nuclear Fuel, Israel Says,” *Guardian*, June 25, 2008. Although North Korea has sold missiles to both Syria and Iran, at least one prominent U.S. analyst has discounted this possibility as highly improbable. See comments of Robin Wright, U.S. Institute of Peace, “Israel’s Airstrike on Syria’s Nuclear Reactor: Preventive War and the Nonproliferation Regime,” July 14, 2008, audio file, www.usip.org/events/2008/0714_israel_syria.html.

7. “Syria Rejects U.S. Allegations on Existence of Nuclear Activities,” Xinhua, April 25, 2008.

8. Associated Press, “Syria Bars Repeat Visit by U.N. Nuclear Experts,” *USA Today*, August 9, 2008.

9. “Strengthening Agency Safeguards: The Provision and Use of Design Information,” GOV/2554/Att.2/Rev. 2, April 1, 1992. This requirement is reported to have been included in Syria’s Subsidiary Arrangement to its IAEA safeguards agreement. Syria’s safeguards agreement with the agency is dated February 25, 1992; the “subsidiary arrangement” establishing reporting requirements for new facilities is believed to dated after the April 1 board decision requiring design information to be provided as soon as the “decision to construct” or “authorize construction” of a new facility is taken.

originally intended for use in North Korea's Yongbyon reactor and that the facility for fabricating additional fuel was to be secretly built in Syria.¹⁰ It is also possible that the reprocessing facility to extract plutonium from irradiated Al Kibar fuel was to be built in Syria in the future; reportedly, North Korea did not complete its own reprocessing plant until after it had begun operation of the Yongbyon reactor. The principal alternative to these various possibilities—namely, that Syria built the reactor but did not intend to operate it or obtain plutonium through its use—does not appear credible in light of the expense and risk of exposure to international sanctions that building the reactor entailed and the factors, noted below, that appeared to prompt Syria during the 1990s to pursue nuclear arms.

Although the CIA places the commencement of some form of North Korean-Syrian nuclear cooperation in 1997 and the start of construction of the Al Kibar facility in 2001, the summer of 2000 appears to be a crucial time for further scrutiny. As the agency notes, the nuclear dialog between Damascus and Pyongyang began during the tenure of President Hafez al-Assad of Syria, but until further details emerge, it will not be possible to determine with certainty whether he launched Syria's apparent bid for nuclear weapons before he died suddenly of a heart attack in June 2000 or whether Syria's nuclear engagement with North Korea during his lifetime was purely exploratory. The latter chronology would indicate that the reactor project was launched by his son, Bashar, who became Syria's president in July 2000.

One Israeli press report states that the foundation for the deal was laid just before the elder Assad died and arrangements were concluded soon afterward, when his son had become Syria's new leader.¹¹ The timing would be consistent with the CIA's 2001 start date for construction of the Al Kibar reactor. Syria's reported September 2000 test of a North Korean-supplied, nuclear-capable Scud-D missile with a range of 700 kilometers (km) may be a separate indication that North Korean-Syrian strategic cooperation intensified over the summer of 2000. The system was later added to Syria's arsenal. Syria purchased its first missiles from North Korea—the 500-km-range Scud-C—in 1991 and made further purchases of the system, and of a facility for producing them, throughout the early 1990s.¹²

Crucial Importance of North Korea

Apart from the Al Kibar reactor and any other secret nuclear fuel cycle installations that Syria may have built along with it, the country's nuclear infrastructure is extremely limited. Syria operates a very small research reactor under IAEA safeguards: a 30-kilowatt (thermal) miniature neutron source reactor supplied by China in 1991, which started up in 1998. It also operates a facility to extract uranium from tri-superphosphates that came on line in 2001. The timing of the latter facility suggests it may have been built to support the Al Kibar reactor; it has not been possible, however, to compare the uranium plant's capacity with the needs of the reactor. Plans to build a somewhat larger research reactor with Russian assistance and discussions with Moscow about the possible construction of a nuclear power reactor have not come to fruition.¹³

Given this very limited nuclear infrastructure, the U.S. Department of Defense in its report *Proliferation Threat and Response: 2001*, declared:

10. According to the U.S. Department of State, North Korea's known fuel fabrication facility and other units at Yongbyon were operating "until they were shut down in July 2007 as part of Six-Party process," in which North Korea is negotiating with China, Japan, Russia, South Korea, and the United States to eliminate its nuclear weapon program. Department of State, "Update on the Six-Party Talks," fact sheet, May 10, 2008.

11. Ronen Bergman and Ronen Solomon, "Al-Asad's Atom Program," *Ye'diot Aharonot*, April 8, 2008, Open Source Center document GMP20080404754005.

12. "North Korea Nuclear/Missile Chronology—1962–2000," *Risk Report*, November/December 2000, Wisconsin Project, www.wisconsinproject.org/countries/nkorea/nuke-miss-chron.htm.

13. "Syria Profile: Nuclear Overview," Nuclear Threat Initiative, www.nti.org/e_research/profiles/Syria/Nuclear/index.html.

Syria is not pursuing the development of nuclear weapons. However, it retains an interest in nuclear technology and has a small Chinese-supplied research reactor, which is under IAEA safeguards. In addition, in May 1999, Syria signed a broad nuclear cooperation agreement with Russia, which includes the construction of a small light-water research reactor, which will be subject to IAEA safeguards. Syria currently lacks the infrastructure and trained personnel to establish a nuclear weapons program.¹⁴

While the report's conclusion that Syria was "not pursuing the development of nuclear weapons" now appears to be in error, its characterization of Syria's indigenous capabilities in the nuclear realm underscores the fact that without North Korea's assistance, Syria would have found it impossible to advance its nuclear ambitions. Senior U.S. intelligence officials believe that North Korea's principal motive for pursuing the deal was to reap the financial rewards it offered.¹⁵

New Restraints Limit Access to Technology for Future Proliferation

Under an agreement reached through the six-party process, involving China, Japan, Russia, South Korea, the United States, and North Korea, Pyongyang has pledged not to provide nuclear assistance, including nuclear technology or materials, to other states. Since assisting Syria with the razing of the Al Kibar site in October 2007, North Korea is not known to have violated this pledge, as evidenced by the readiness of the United States to move forward with the six-party agreement. If Pyongyang continues to adhere to the agreement, this avenue for Syria to advance its nuclear goals will be closed. With the only other known source of comprehensive nuclear weapons development assistance—the network run by Pakistani nuclear scientist A.Q. Khan—now disrupted, it appears that Syria will find it extremely difficult to restart its apparent nuclear weapons program.

However, it should be recalled that North Korea had only the most limited industrial capacity when it launched its own, ultimately successful, nuclear weapons program in the late 1970s, suggesting that even states at Syria's low level of industrialization have been able to pursue such a program without extensive outside support. Moreover, it is possible that Syria already possesses other North Korean-built fuel cycle facilities that have not yet been exposed. North Korea may also have transferred to Syria sensitive technology, including a nuclear weapon design, which Syria would presumably have retained for possible future use. In addition, Syrian technicians and engineers undoubtedly participated at some level in the construction of the Al Kibar reactor and certainly know more today about building such facilities than they did in 2001. Finally, Damascus may also have learned how to skirt international nuclear trade controls under North Korean tutelage. During the early 2000s, Pyongyang apparently employed a purchasing agent in Europe who obtained diverse equipment for Syria's nuclear program and had a branch office in Damascus.¹⁶

14. U.S. Department of Defense, *Proliferation Threat and Response 2001* (Washington, DC: Office of the Secretary of Defense, 2001) p. 40. The assessment is consistent with U.S. estimates throughout the 1990s. In 1996, for example, Director of Central Intelligence John Deutch stated, "Syria's nuclear research program is at a rudimentary level and appears to be aimed at peaceful uses at this time. It is subject to International Atomic Energy Agency (IAEA) safeguards. At present, we have no evidence that Syria has attempted to acquire fissile material." Testimony of John M. Deutch before the Permanent Subcommittee on Investigations of the Senate Committee on Government Affairs, March 20, 1996.

15. Office of Director of National Intelligence, "Background Briefing." It is also worth noting, however, that when the project was launched North Korea had frozen plutonium production at its Yongbyon reactor pursuant to the 1994 Agreement Framework with the United States. Thus North Korea had shut down its sole domestic plutonium production reactor, but sometime between 1997 and 2001, it launched a project to build a facility of comparable design and size in a friendly state. At least in theory, this second facility would have had the potential to supply plutonium not only to Syria, but also to North Korea, had the need arisen.

16. Robin Wright and Joby Warrick, "Purchases Linked N. Korean to Syria: Pyongyang Company Funneled Reactor Parts to Damascus, Intelligence Officials Say," *Washington Post*, May 11, 2008, p. A18.

Thus, from the standpoint of technological capability, Syria's nuclear program, while suffering a grave setback because of the Israeli raid and the withdrawal of North Korean aid, could conceivably be relaunched in the years ahead.

Changing Motivations?

Two principal factors appear to have motivated Hafez al-Assad to pursue his apparent nuclear weapons program. The first was a growing sense of vulnerability brought on by the loss of the Soviet Union as a key political ally and supplier of advanced military equipment. This was compounded by a fear of encirclement driven by Israel's increasing military capabilities; the growing presence in the region of Israel's chief ally, the United States; and an Israel-Turkey entente cemented by two military accords in 1996. (The demise of the Soviet Union also probably removed an important restraining influence on Syria's nuclear ambitions.)

The second driver was likely Assad's deeply etched vision of Syria as a state entitled to command the attention of the major powers, but which was being eclipsed after the loss of its Soviet patron. Assad saw Syria as the stronghold of Arabism, which was permanently beleaguered by imperialism and Zionism. Indeed, he is reported to have genuinely believed that the West's colonial intentions, in tandem with Israeli expansionism, posed an existential threat to the Arab world and to Syria, in particular.¹⁷

Although the worldview of the Western-educated Bashar undoubtedly differs somewhat from that of his father, the younger Assad made few changes in his father's policies, beyond a brief experiment in opening up Syrian society in 2000–2001 that he then forcefully suppressed when it threatened to lead to instability. Bashar, of course, continued to pursue the elder Assad's secret nuclear legacy, seeking to complete construction of Al Kibar until the reactor was destroyed.

Today, Syria's poor economic performance and the discontent it has spawned are leading Bashar to declare his intention to open up Syria to the outside world as a step essential to the country's progress. Syria is also engaged in indirect peace talks with Israel, mediated by Turkey, another sign that the country may be moving away from the extreme defensiveness of the elder Assad that likely helped inspire the country's secret nuclear program. The destruction of Al Kibar, in itself, and the failure of any Arab state to rally to Syria's side—in sharp contrast to the solidarity shown with Iraq after Israel destroyed the Osirak reactor in 1981—may also have chastened Bashar and made any renewal of Syria's quest for nuclear arms appear to be too great a risk. The increased scrutiny that Syria is receiving from the IAEA, Israel, and the United States in the aftermath of the exposure of the reactor is likely to be another restraining factor.

An Alternative Course

In light of these developments, Syria may try an approach that other states in the region—including Syrian ally Iran—have employed or are considering. This would be to openly develop the infrastructure for nuclear power generation, including sensitive facilities that can be used to produce nuclear weapon material, under IAEA inspection and in compliance with international nuclear trade rules. Once the facilities began operating, Syria could withdraw from the NPT, seize stocks of weapons material, and produce nuclear arms. This is the approach the international community believes Iran is pursuing and other regional states may be thinking about. It would avoid the risks of a clandestine program, but still move Syria up the nuclear ladder.

Given the suspicions aroused by the Al Kibar reactor, however, it is unlikely that most nuclear suppliers

17. Flynt Leverett, *Inheriting Syria: Bashar's Trial by Fire* (Washington, DC: Brookings Institution Press, 2005), pp. 38–39.

would consider selling a nuclear power reactor to Damascus. Still, a resurgent Russia, intent on reestablishing international influence, might consider such a move as a means of strengthening ties to its erstwhile regional ally.

For the moment, deprived of a full-service clandestine nuclear provider, seemingly interested in improving ties with Israel and the West, and under intense international scrutiny, Syria seems unlikely to renew its apparent bid for nuclear arms anytime soon. But its capabilities have improved since 1991, and as its adventurism in Lebanon indicates, it continues to press for regional advantage at Israel's expense. Thus, Syria's continued pursuit of secret nuclear ambitions cannot be ruled out, and Syria may also be considering a change in strategy, advancing such ambitions by means of a civilian nuclear power program, following the model Iran has adopted.

Dealing with the Outliers

Sverre Lodgaard

IN THE AUGUST 2007 issue of *Disarmament Diplomacy*, Jenny Nielsen provides a summary and analysis of ten ideas for how to deal with India, Pakistan, and Israel—the three nuclear regime outliers.¹ She concludes that none of the ideas are good enough, indicating that under the circumstances, keeping the status quo may be the best option. One year later, that option is no longer available, for at long last the U.S.-India agreement has been clinched. Maintaining the status quo—just waiting for a better way to engage the three—would have been an untenable situation anyhow.

The grand bargain of 1968 that led to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) has come apart. For the great majority of states, this is a significant loss. Amid all the conflicting interests and diverging policies, there is a growing realization that common ground must be reestablished as a matter of urgency. If not, the regime will crumble. The best, and perhaps the only way, to achieve it is to reconfirm the validity of the old bargain. A better approach to the three-state problem should be sought in that framework. Engaging the outliers must be part of the consensus effort.

Reconfirmation must come with an update. Forty years after the bargain was struck, this is obvious. It applies to all three pillars of the NPT: nonproliferation, peaceful uses, and disarmament. It also applies to the international system in which the nonproliferation regime functions. Two systemic features rank above all others: first, the United States remains the top global power, so regime leadership—which no international regime can do without—is primarily up to the United States to exercise; and second, the power shift toward Asia means that China, India, and other Asian states will have a greater say in shaping the agenda.

The most important factors framing the approach to the outliers are therefore the implications of the U.S.-India deal and the search for a new global consensus on nonproliferation and disarmament, meaning an updated reconfirmation of the validity of the grand bargain and a realignment of the regime to world-order changes. The first of these factors is India-specific² but influences considerations of how to engage the other outliers. The second is comprehensive to the point of being a world order issue.

The U.S.-India Agreement

The origin of the agreement goes back to India's tests in 1998, when India began to rework its nuclear diplomacy. India transformed itself from the world's leading opponent of discrimination in the nuclear order into a nation ready to support the existing order. It stepped up its support for incremental arms control, endorsed the objectives of the NPT, declared its readiness to join Fissile Material Cutoff Treaty (FMCT) negotiations, endorsed the Nuclear Suppliers Group (NSG) guidelines without becoming an NSG member, issued a mora-

1. Jenny Nielsen, "Engaging India, Israel and Pakistan in the Nuclear Non-Proliferation Regime," *Disarmament Diplomacy*, no. 86 (Autumn 2007).

2. Not only because the agreement contains such specifics, which is obvious, but also for diplomatic and political reasons in order to facilitate ratification of it.

torium on testing, supported nuclear-weapon-free zones elsewhere in the world, announced its willingness to seek substantive confidence-building measures with Pakistan, and tightened export control regulations. Later, India supported U.S. nonproliferation initiatives like the Proliferation Security Initiative.³ The agreement with the United States, the subsequent safeguards agreement with the International Atomic Energy Agency (IAEA), and the recent NSG decision to give India access to the international nuclear market despite the fact that it is running a nuclear weapons program, turn some of these commitments into international obligations.

The U.S.-India deal therefore grew out of many years of pragmatic, concrete reorientation toward the existing order. In view of the fundamental change of foreign policy that it amounted to, the gestation period—ten years—was surprisingly short. Too short for comfort when the deal was introduced and the debate about it started: the meaning of the turnaround had not been fully grasped and digested. The controversies that followed can be fully understood only against this background.

To facilitate the NSG decision, India reconfirmed its voluntary moratorium on testing, its commitment not to export fuel cycle technologies—in line with the way the NSG guidelines are commonly understood—and its readiness to join FMCT negotiations. The decision also provides for reviews of how the exemption is operating. None of this involves any new obligation, but it strengthens India's commitment to them.

Pakistan wants an agreement with the United States similar to India's, and it has been speculated that China and Pakistan may emulate it. Israel has also explored the possibility of obtaining an exemption from the NSG guidelines. However, Pakistan has not reoriented itself the way India has and does not enjoy the same status. Pakistan does not have proper export control standing; it violated the rules of international nuclear commerce for years; its state institutions remain weak; it does not present a lucrative power reactor market; and it is not a big power. This is not the time, therefore, to invite the NSG to make an exemption for Pakistan. China is unlikely to try, anyhow. Its gigantic domestic modernization project depends on harmonious relations with the outside world, and provocative foreign policy experiments are alien to cautious decision makers in Beijing. China hardly appreciates the U.S.-India agreement, but has gone along with it not to antagonize the United States and others. Israel does not admit to having nuclear weapons and is therefore unprepared for any separation line between civilian and military programs.

Given the differences between the three outliers, there was always a case for addressing them separately, one by one. The U.S.-India agreement rubs it in. However, the deal suggests certain options for Pakistan and Israel as well. If they follow the Indian example and move closer to the international regime, similar agreements may sooner or later be replicated in part (Israel) or in full (Pakistan).

Compatibility with the NPT

In one way, the U.S.-India agreement is stricter than the NPT; in another, it is more permissive.

The stricter part concerns the fact that under the NPT, the nuclear weapon states (NWS) are free to assist one another in developing and testing nuclear warheads, to receive from any state the material necessary to pursue a nuclear weapon program, and to decide whether and to what extent they should accept international controls over their peaceful activities.

The U.S.-India agreement does not provide the same privileges for India. The United States wanted to ensure that India applies world-class export controls, blocking Indian contributions to any and all weapon-oriented programs. Furthermore, by separating military and civilian activities and putting all civilian activities under safeguards, suppliers would know that they do not contribute to India's military program, although the

3. Raja Mohan, "India's Nuclear Exceptionalism," in Morten Bremer Mærli and Sverre Lodgaard, eds., *Nuclear Proliferation and International Security* (Oxford: Routledge, 2007).

line between civilian and military applications is not watertight and probably never can be. The prohibition on enrichment, reprocessing, and heavy water technology transfers—in the NSG guidelines, but not explicated in the agreement—corroborates it.⁴

The permissive part concerns the disarmament commitment of NPT Article VI. The U.S.-India agreement contains no promises in this respect. While 187 parties to the NPT have undertaken an international legal commitment to work for nuclear disarmament, India (as well as Pakistan and Israel) is under no such commitment. Considering the lack of will on the part of the recognized NWS to implement this provision, the same commitment by India would not necessarily make much of a difference. However, had India undertaken an Article VI commitment, it could have been put to task in the NPT review process and asked to respond to questions in other fora where nuclear disarmament is discussed, on par with the other NWS. Today, there is no formal basis for such requests.

The Bush administration has had a tendency to act as if Article VI does not exist, and so could not be expected to press India to make a commitment that the administration itself belittles. The domestic debate about the agreement has hardened India's opposition to such an undertaking. Traditionally, however, India has had a high profile on nuclear disarmament affairs and remains supportive of a nuclear weapon convention to eliminate all nuclear weapons on a specific timeline. When the agreement has entered into force and the controversies about it have been put to rest, it may therefore see fit to make a unilateral disarmament commitment, which others may wish to recognize in such a way that it becomes an international legal obligation.

Reconfirming and Realigning the Grand Bargain

The search for a new consensus proceeds from the following assumptions and concerns:

Nonproliferation. In view of the overriding importance that the five NWS have accorded to nuclear weapons, adding only another three NWS in the course of forty years may be deemed a success. North Korea, which left the NPT in 2002 and tested a nuclear device in 2006, may be ready to trade its nuclear weapon program for economic assistance and normalization with the United States and the rest of the world. The six-party negotiations to this effect—between North Korea, South Korea, China, Russia, Japan, and the United States—made significant progress in 2007 and 2008. The two Korean states have also declared their intention to make the Korean Peninsula a nuclear-weapon-free zone. Although it is an outlier, North Korea is therefore in a category of its own.

The three other outliers are hard to roll back, however. In effect, there is no reason to believe that India, Pakistan, or Israel will eliminate their nuclear weapons any sooner than any of the five major nuclear powers. Except for Israel, whose nuclear arsenal is integral to the intractable security problems of the Middle East, all NWS are looking at each other. In that sense, they are in the same boat.

Peaceful uses. Nuclear power is rising to prominence again, mainly to cope with climate change and energy shortages, but also to reduce customer dependence on oil and gas suppliers. Other reasons include enhanced post-Chernobyl safety, higher cost-effectiveness, more than twenty years without serious reactor accidents, and better options for long-term storage of spent fuel. If—on top of this—globalization yields to regional cooperation and stronger emphasis on national self-sufficiency, while better assurances of supply fail to come forth, fuel cycle facilities may proliferate as well. This poses a growing demand for more effective combinations of better supply assurances to limit the construction of national enrichment and reprocessing plants; multinational, proliferation-resistant solutions at new centers; and enhanced safeguards.

4. The NSG guidelines are not binding on the forty-five member states but are often described as a “gentlemen’s agreement.” Russia has made important nuclear transfers to India irrespective of the full-scope safeguards provision.

Disarmament. The modernization of Western and Russian nuclear forces and the expansion of Asian arsenals are pitted against renewed calls for disarmament, chiefly in the United States. Three camps are likely to shape the U.S. debate: a Shultz-Nunn-Perry-Kissinger camp that envisions total disarmament; a camp that believes this vision is “right but unrealistic” and wants smaller inventories; and a camp that believes “this is a very bad idea” and fears it is a return to arms control.⁵ Disarmament has been the main point of contention at all NPT Review Conferences. In the view of the non-nuclear weapon states, disarmament is *the* major issue in the search for common ground.

The *shift of power* toward Asia, and the interests of India and China in particular, suggest that further deep cuts in the U.S. and Russian arsenals should come first. China is ready to ratify the Comprehensive Nuclear-Test-Ban Treaty (CTBT); the latest test series—tests 39–45, ending in 1996—appear to have been successful to the point of providing what it needs. However, in view of the Chemical Weapons Convention experience,⁶ China wants the United States to go first. On the other hand, it hesitates to proceed to an early cutoff agreement, waiting to see what happens with the U.S. arsenal, the U.S. missile defense program, and militarization of outer space. India is in the process of building up its nuclear force and is therefore all the more unprepared for these arms control classics.

The rapidly growing Asian giants are increasingly self-confident and not to be kicked around. To Western voices advocating nuclear disarmament, the Asians are saying, “Go ahead, we’ll support you.” They ask for further deep cuts in U.S. and Russian arsenals before turning to other measures. If the response is an arms control agenda that constrains them while leaving the usual suspects off the hook, initiatives will quickly go sour.

Requirements

What will it take to draw the outliers into a new global consensus on nonproliferation and disarmament? What is it about?

Eight requirements for a global consensus may be noted. They interconnect with one another, so the order in which they are listed below is not an order of priority.⁷

Requirement number one is that agreement is forged on the unit of account. The Bush administration shifted attention from the weapons to their possessors. This policy has to be revoked. In the NPT, nuclear weapons are the units of account: it is the *weapons* that should not proliferate and it is the *weapons* that should be eliminated. India and Pakistan seem to follow the NPT in this respect, while Israel’s position is ambiguous.

Second, negotiations must be reinstated as a bona fide modality of nonproliferation policy. The Bush administration refused to negotiate with its enemies. At long last, it resumed talks with North Korea, but leaves it to others—primarily the Europeans—to negotiate with Iran.⁸ India and Pakistan are known to favor negotiations, while Israel is siding with the United States.

Third, the U.S. National Security Strategy says that the United States must deter and defend against WMD threats before they are unleashed. In international law, preventive attack against an opponent who may or may not become a real threat in the future is not permitted. Such attacks are at odds with the nonprolifera-

5. Personal communication from John Hamre, director of the Center for Strategic and International Studies and chairman of Pentagon’s Defense Advisory Board.

6. Upon ratification of the Chemical Weapons Convention, the United States made important reservations.

7. These requirements are spelled out in greater detail in Sverre Lodgaard, “The Need for a New Consensus on Non-Proliferation,” paper presented at the international conference “Towards a World Free of Nuclear Weapons,” New Delhi, June 9–10, 2008.

8. The participation of William Burns in the latest round of talks between Iran and the permanent five plus Germany (P5+1) was described by the United States as a one-time exception, and Burns was not mandated to negotiate with the Iranians.

tion regime, which is part and parcel of international law. The third requirement is therefore for preventive military action to yield to treaty-based approaches. In Israel, preventive attack has been military doctrine for more than twenty-five years,⁹ starting with the bombing of an Iraqi reactor (Osirak) in 1981, followed by the bombing of an alleged Syrian reactor in 2007, and currently advocated as a means of last resort to destroy the Iranian nuclear program. India and Pakistan do not advocate preventive attack and have agreed not to attack each other's nuclear facilities.

Fourth, in the field of verification the principle is *adequacy*, the operative meaning of which may have to be adjusted from time to time. The original NPT operationalization was full-scope safeguards following all fissile materials in member states (see INFCIRC/153 from the IAEA). For some time, efforts have been made to establish INFCIRC/153 plus an Additional Protocol facilitating the search for activities and facilities that may not have been declared (INFCIRC/540) as the new verification standard.¹⁰ India has accepted that standard for its civilian activities. Pakistan and Israel have stayed with pre-NPT facility-specific INFCIRC/66-type agreements.

Fifth, reconfirming the basics is very much about reestablishing the original balance between the pillars of the NPT: nonproliferation, disarmament, and peaceful uses of nuclear energy. Among the outliers, Pakistan is known to be one of the worst proliferators. On nuclear disarmament, India has been more vocal than the others. All of them would like to be admitted to the international market for nuclear material, equipment, and technology, although this has been a lower priority for Israel than for the South Asian states. India and Pakistan have been vociferous critics of the NPT for being unbalanced and discriminatory and the NWS for being hypocritical. After 1998, the criticism abated, but it remains a significant undercurrent in both countries. Israel has kept a low profile in this respect.

Sixth, while all parties to the NPT are obliged to work for nuclear disarmament, U.S. leadership is vital. India and Pakistan have criticized the NWS vehemently for their failure to disarm—the United States and the Soviet Union/Russia in particular. Today, the aggressiveness that characterized their disarmament advocacy is gone, and they are trying to fend off global measures to implement the first part of Article VI (“cessation of the nuclear arms race at an early date,” which includes a test ban and a cutoff). Israel was never very outspoken on behalf of nuclear disarmament, being a NWS itself from the late 1960s and wary of criticizing its close partner and security guarantor, the United States.

Seventh, while the U.S. policy of regime change may be out with the next administration, counterproliferation—preventive action in some form or another—is likely to stay. That goes for military as well as non-military means to eliminate nuclear installations. The relationship between counterproliferation and nonproliferation is ambiguous and complex. Counterproliferation *threats* may supplement the regime in the best interests of nonproliferation—adding a deterrent capability to a regime that is very weak on means of enforcement—while actual *use of force* may undermine the same objective. Requirement number seven is therefore to live with the differences between nonproliferation and counterproliferation and exploit opportunities to make them mutually reinforcing. This is a delicate challenge both for outliers and NPT parties.

Eighth, for international regimes to function properly, some important actor or actors must exercise leadership. During the Cold War, the depository states took responsibility for the NPT in their special way. Recently, there has been no leadership at all. Resumption of leadership is primarily up to the United States, and others should encourage it to retrieve that mantle. The roles of India, Pakistan, and Israel can only be second-

9. This is the Begin doctrine, named after Prime Minister Menachem Begin, who authorized the attack on Osirak.

10. This is not the end of the road for verification improvements. The Commission of Eminent Persons, which was asked to reflect on the role of the IAEA up to 2020 and beyond, recommends that the IAEA's existing authorities be interpreted to give the agency the responsibility to inspect for indicators of nuclear weaponization activities. See “Reinforcing the Global Nuclear Order for Peace and Prosperity,” report prepared by an independent commission at the request of the IAEA director general, May 2008.

ary in this respect, for the very reason that they are outliers. On disarmament, India may become an exception if it revives its traditional interest in nuclear disarmament in the framework of the nonproliferation regime. Certainly, its orientation toward the existing order makes it easier to forge a new consensus on nonproliferation and disarmament.

Tentative Conclusions

The U.S.-India agreement recognizes the fact that India is a NWS. Since NSG decisions are made by consensus, all NSG members have done so by exempting India from the guidelines. From now on, members who have criticized the agreement are likely to cease doing so openly. Other critics can also be expected to soften their objections.

Except for the disarmament clause of Article VI, India has committed to the provisions of the NPT. Given its historical record on disarmament affairs, it may not take much to align it with Article VI as well. If and when that happens, India would have undertaken to behave “as if” it were a member of the NPT, the formula that France applied up to 1992, when it became a regular party to the treaty.

Sooner or later, *de jure* recognition of India as a NWS will follow. International law, which currently holds that there are only five nuclear powers, will have to be reconciled with the realities of the world. Under what circumstances would it be appropriate to make that happen?

One possibility would be to wait for India to emulate the disarmament obligation of Article VI and undertake the full “as if” commitment before extending *de jure* recognition to it, and let this be the standard that Pakistan must live up to in order to be treated the same way. While Pakistan is far from that standard now, it is in the best interest of nonproliferation that it gets there. NPT parties should therefore encourage and assist Pakistan to become a bona fide nonproliferator. The prospect of an agreement similar to the Indian one could help it walk the last mile.¹¹

Another possibility is a criteria-based approach applicable, in principle, to all outliers. It could build on the elements that were highlighted by the NSG when the exemption was made. In addition to an “as if” commitment, it might include signature/accession to the CTBT, strict export controls precluding fuel cycle technology transfers, and a moratorium on fissile material production while waiting for a cutoff treaty to be negotiated. This means a longer timeline for recognition. Further deep reductions of U.S. and Russian arsenals and U.S. and Chinese preparedness to ratify the CTBT would have to come first. Other measures may also be required of the leading NWS, such as restrictions on ballistic missile defense and militarization of outer space. In view of the uncertainties associated with U.S. and other ongoing programs in these fields, many states are hedging their bets. This may win enough time for India and Pakistan to acquire the fissile material stocks they deem adequate and meet the criteria.

Israel cannot be recognized as a nuclear weapon state, since it does not admit to having nuclear weapons. However, its declaratory policy of opacity/ambiguity does not prevent it from making an “as if” commitment. For Israel, such a commitment would entail no significant sacrifice and no significant gain. It would be a gesture of goodwill from a state that is known to be recalcitrant on arms control. It has signed the CTBT and may have enough fissile materials to agree to a cutoff. In one key respect, however, the U.S.-India agreement sets a higher standard than Israel is ready for: as long as it is not willing to declare its program, draw a civil/military separation line, and accept safeguards on all civilian activities, it will not gain access to the international nuclear market.

11. Commenting on the safeguards agreement with India, ElBaradei said that the India-specific agreement could be used for the conclusion of other 66-type agreements as well, indicating that there might be a follow up in other outlier states.

As long as the outliers are not formally recognized for what they are, they cannot become parties to arms control agreements. For instance, they cannot be asked to extend security assurances to members of nuclear-weapon-free zones. If they are to be involved in nuclear disarmament negotiations with a view to ambitious agreements affecting the arsenals of all NWS, *de jure* recognition of them is a *sine qua non*. Nuclear disarmament will make *de jure* recognition an increasingly pressing issue._

The requirements for a new consensus listed above show that much more is involved than Articles I, III.2, and VI. There are fundamental modes of behavior to be respected (unit of account, negotiations, commitment to international law); a proper balance between the pillars to be reestablished; a delicate coexistence between nonproliferation and counterproliferation to be managed, it being understood that differences do not necessarily amount to incompatibilities, but may be turned to mutual advantage; and there is a leadership role to be filled. For the time being, both parties and outliers fail to meet some of these standards. Among the outliers, India is closest to the regime requirements, while Israel is furthest away.

As the U.S.-India agreement enters into force, there is no similar agreement in the making. Another radical move is not in the cards and may not be for a long while. The best approach may therefore be a pragmatic one, sensitizing and committing both parties and outliers to the requirements for a new consensus.

Preventing further Defections: Early Warning Indicators and Disincentives

Paul Meyer¹

IN CONSIDERING THE issue of preventing further defections from the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), one must naturally begin with a consideration of the sole existing defection from the treaty. This status of course belongs to North Korea, the only state party to the NPT to have exercised its sovereign right to withdraw under Article X of the treaty. The Democratic People's Republic of Korea (DPRK) announced its withdrawal in a statement on January 10, 2003, a few days after the International Atomic Energy Agency (IAEA) Board of Governors adopted a resolution highly critical of the DPRK's actions, which were judged to be in violation of its safeguards agreement and which constituted, in the words of the resolution, a matter of "great non-proliferation concern."²

The DPRK had been in a protracted dispute with the agency; indeed, Pyongyang characterized its withdrawal as the implementation of a decision (June 11, 1993) taken a decade earlier during the nuclear negotiations with the United States and unilaterally "suspended." The net effect, however, was powerful—both politically and symbolically. The DPRK became the first NPT party to withdraw from the treaty, which up until then had only experienced ever-greater levels of adherence and near-universal status. The fact that there had been earlier clandestine "defections" from NPT obligations on the part of state parties (e.g., Iraq and Libya) did not diminish the negative impact that the first formal withdrawal represented. This act of defection revealed the NPT's true nature. It is not a universal compact enshrining an unquestioned norm, but rather an international security agreement that is subject to reappraisal in light of changing circumstances and that has an escape hatch that affords rapid and unimpeded exit for any state party.

In the wake of the North Korean defection, international reaction from other NPT member states tended to coalesce around two themes and two sets of proposals for remedial action. One theme was the relative ease of withdrawal from the treaty under Article X and the need to examine ways to "raise the bar" for withdrawal. Another theme was the lack of suitable institutional forums for consideration of the withdrawal and development of appropriate responses. This essay deals with these themes in turn.

Article X of the NPT stipulates, "Each party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country." The withdrawal notification period is set at three months. The *ex post facto* recognition that these conditions represented a low threshold to withdrawal and could be exploited by a state party to the NPT as a screen behind which a nuclear weapons program could be built up covertly, sent shock waves through the membership. Germany was among the first state parties to formulate ideas on how this danger might be addressed, and it submitted a working paper on the subject in April 2004 to the Third Preparatory Committee (PrepCom) for the 2005 NPT Review Conference.³ The working paper

1. The views expressed in this essay are solely the author's own and not those of the Department of Foreign Affairs and International Trade Canada.

2. IAEA, Board of Governors Resolution GOV/2003/3, January 6, 2003.

3. "Strengthening the NPT against Withdrawal and Non-compliance," working paper submitted by Germany, NPT/CONF.2005/

suggested setting a list of criteria relating to the definition of “extraordinary event,” establishing a requirement for prior consultations with NPT states parties, and determining that the exercise of the right of withdrawal be conditional upon being in a state of compliance with the treaty. The paper also noted several understandings that would be operable in the context of withdrawal. These included establishing a right for supplier countries to ask a state that has withdrawn for the immediate restitution of material and technology delivered under NPT Article IV and affirming that a state withdrawing from the NPT is still liable for acts of noncompliance committed while still a treaty member.

Germany’s ideas were largely picked up by the European Union member states, and an EU working paper was submitted in May 2005 to the Review Conference.⁴ The paper added the notion that withdrawal could constitute a threat to international peace and security and recalled the key role of the UN Security Council as a final arbiter. The United States also produced a working paper on Article X at the 2005 Review Conference, which while reaffirming the sovereign right of states to withdraw also called upon others states parties “to render assistance to dissuade it from such a decision.”⁵ Like the EU paper, the U.S. document foresaw a special role for the depository states and the UN Security Council but went further in introducing a hint of the use of force by suggesting that states could “focus intelligence and interdiction resources” on a state that had withdrawn in order to stop any clandestine procurement. The effort to “raise the bar” on withdrawal was hampered by the reluctance of many to constrain in any way the sovereign right of treaty withdrawal. This grouping included the United States, which had by its own unilateral abrogation of the Anti-Ballistic Missile Treaty provided a convenient precedent for a “supreme interests”-based departure from an arms control accord.

The other major theme raised by the DPRK defection was the NPT’s institutional deficiency in dealing with such an event, despite its substantial impact on the authority of the treaty and by extension the security interests of its members. There is no provision in the NPT for any form of emergency meeting of states parties, or indeed any form of empowered assembly of states parties outside the Review Conferences, which are held only once every five years. Once the DPRK had notified of its intention to withdraw, there was no NPT forum in which to consider the implications of such a move or to serve as a rallying point for NPT states parties to apply peer pressure against the would-be defecting state. The UN Security Council, while occupying a predominant place in the international security system, had no special role to exercise in a case of withdrawal and in any event could not claim to represent the interests of the NPT membership as a whole. The fact that it took the UN Security Council three years after the IAEA’s referral of the DPRK’s safeguards noncompliance to actually take any action (passing Resolution 1695 in 2006) also did not inspire great confidence in its ability to respond in a timely or decisive manner to a notification of withdrawal from the NPT. The IAEA Board of Governors suffered the same limitation as to its nonrepresentative nature while wielding far less power than the Security Council.

Canada, which had been promoting a series of reform measures of the NPT in an effort to overcome its institutional deficit, had already submitted a working paper to the Third PrepCom in April 2004 proposing annual meetings of states parties and “extraordinary sessions of the General Conference of States Parties when situations arose that threatened the integrity or viability of the Treaty, for example, a notification of intent to withdraw from the Treaty.”⁶ In Canada’s view, it was important politically for NPT states parties to have an opportunity to collectively consider withdrawal notification from a state party and to permit political and diplomatic pressure to be applied in the crucial ninety-day period before a withdrawal could be effected in

PC.III/WP.15, April 29, 2004.

4. Working paper submitted by the European Union, NPT/CONF.2005/WP.32, May 10, 2005.

5. Working paper submitted by the United States, NPT/CONF.2005/WP.59, May 24, 2005.

6. “Overcoming the Institutional Deficit of the NPT,” working paper submitted by Canada, NPT/CONF.2005/PC.III/WP.1, April 5, 2004.

order to try to persuade the errant country to reconsider its position. It was unseemly for NPT states parties to be mere passive on-lookers to events that would have serious negative implications for their own security interests. These reform ideas received support from some quarters, including Australia and New Zealand, which had submitted a joint working paper to the 2005 Review Conference that saw both a role for the Security Council as well as one for “an extraordinary meeting between the States parties to the Treaty to consider any case of withdrawal.”⁷ Norway, Sweden, Switzerland, Ireland, and South Korea also voiced support at the 2005 Review Conference for annual meetings of states parties empowered to convene on an emergency basis. The general impasse and failure of the 2005 Review Conference prevented these and other reform proposals from being seriously considered. Such reform provisions would, however, provide an institutional check on a state embarking on withdrawal and would furnish a forum for concerned NPT states parties to discuss the matter and, if consensus is possible, take decisions on appropriate remedial measures. It is worth recalling that such action by an NPT assembly of states parties would not impinge on the ability of the UN Security Council to take up the issue within its own remit.

While the catalyst for discussion of steps to create disincentives for NPT withdrawal was the North Korean case, there was throughout this period the prevailing concern that others might be tempted to follow the DPRK’s example and exit the treaty. Iran was the most likely candidate; already there had been musings from the Iranian side that if pressed too far by the international community in its long-running dispute over the Iranian nuclear file, Tehran might exercise its option for withdrawal. Members of the Arab League also raised the specter of NPT withdrawal as a contingency measure if Israel were ever to officially acknowledge a nuclear weapons arsenal.⁸

Implicit in the efforts of states like Canada and Ireland in espousing major reforms of the NPT processes was the desire to reinforce the power and authority of the treaty by providing it with an institutional persona and support system. From this perspective, there was something demeaning and almost embarrassing in the NPT’s lack of visible means of support. In an international legal environment where practically the most modest multilateral convention comes complete with an annual conference of states parties, not to mention some form of standing council or bureau and frequently a dedicated secretariat, the NPT was conspicuous in being so bereft of such institutional support. The PrepComs that met in three out of the four years between Review Conferences were by definition seen as subordinate gatherings that helped to prepare for the eventual decisions of the quinquennial Review Conferences but took virtually no decisions of their own. Even the Review Conferences suffer neglect from the great powers, with the foreign ministerial-level delegations that characterized the 1995 and 2000 NPT Review Conferences reduced to the assistant secretary of state-level by the 2005 Review Conference. The rather sordid attempt by certain states to disavow the consensus outcome document from the 2000 Review Conference and deny the commitments made therein also contributed to a tarnishing of the NPT’s reputation and an undermining of its authority.

Clearly part of a strategy to prevent defections from the treaty is to provide incentives for adherence. A treaty that appears to be at best taken for granted and at worst deliberately neglected by its states parties is unlikely to serve as a model of collective purpose and commitment. If one wants to ensure the continued engagement of states parties in the NPT, one has to make sure that the treaty and its obligations are respected in word and deed. In other words, if one wishes to forestall defections from the present treaty, it is necessary to demonstrate that continued adherence is worthwhile. As suggested earlier, the NPT could benefit from demonstrable acts of respect by its membership. Transforming and elevating the current PrepComs to the status of annual meetings of states parties, providing for a standing bureau that would offer some continuity and custodianship (not to mention a representative persona for the NPT), ensuring annual reporting on implementation of treaty commitments, and furnishing the treaty with a dedicated secretariat would all con-

7. Working paper submitted by Australia and New Zealand, NPT/CONF.2005/WP.16, May 2005.

8. See reporting from Reuters (Natanz, Iran) April 9, 2007 and Associated Press (Cairo, Egypt) March 5, 2008.

tribute to strengthening the profile and authority of the NPT. Instead of hollow, repetitive affirmations of the NPT as the cornerstone of the international security environment, the treaty membership could actually start treating the NPT with the respect that it deserves.

Certainly the United States and its new administration have a special role to play in any effort to reverse the NPT's fading fortunes and to restore it to a position of authority in the international treaty system. The corollary of looking for disincentives for treaty withdrawal is to promote incentives for treaty adherence. The United States has it within its power to contribute enormously to restoring the prestige and the authority of the NPT. The following is a list of some of the measures that the new administration could promote if it was serious about revitalizing the NPT.

1. "Do no harm." Desist from actions (like the U.S.-India nuclear deal) that sap the goal of universalization and suggest that the benefits of NPT membership are available free of charge to those who persist in their nuclear weapons ambitions. Not only does this concession embolden the remaining outlier states, but it may also provoke reconsideration of NPT adherence by states that came late to the NPT community and may now question whether accepting the constraints of the treaty are in their best security interests.

2. Stop indulging in corrosive rhetoric of the NPT as the Non-Proliferation—period—Treaty. Downplaying the disarmament obligations of the treaty and ignoring or repudiating the disarmament commitments made in the consensus outcomes of the 1995 and 2000 Review Conferences only exacerbates the discriminatory aspects of the treaty and alienates the vast majority of states parties who recognize the necessity for a balanced implementation of the NPT provisions across all three pillars of its core bargain.

3. Display some humility in accepting the obligations as well as the privileges of nuclear weapon state—status under the treaty. End the gratuitous insult to the membership by refusing to submit official reports on Article VI implementation as required by the 2000 Review Conference decision. Set out with maximum transparency the actual nuclear weapon reductions achieved to date and provide projections and timetables for future reductions. Reintroduce the principles of irreversibility and verification into further disarmament agreements. Cease sending destructive mixed messages about Article VI commitments by engaging in plans for the development of new nuclear weapons. Restore the image of the United States as an NPT state party that does not see itself as above the law as laid down in the treaty and its associated decision-making processes.

4. Develop a positive agenda for the NPT and move promptly to demonstrate that the United States intends to honor the commitments previously made in the consensus context of the NPT. This agenda would include acting upon earlier promises to ratify the Comprehensive Nuclear-Test-Ban Treaty, to instigate Fissile Material Cutoff Treaty negotiations, to ensure strategic stability and disarmament momentum by concluding new and transparent agreements for further major reductions in arsenals, to substantially lower the operational status of remaining deployed forces, to implement the Trilateral and related initiatives to put surplus fissile material under international safeguards, to restrict further the role for nuclear weapons in national strategic or military doctrine, and to contribute concretely to operational research and technical studies relating to the verification of nuclear disarmament. Evidence of a will to move decisively forward on a disarmament agenda alongside continued advocacy for strengthened nonproliferation measures would go a long way to restoring the credibility of the United States as a responsible superpower. It would also boost the credibility of the NPT as a multilateral convention that commands the respect and compliance of the world's most powerful states as well as that of its most humble members.

5. Appoint a presidential representative for the NPT who has stature and influence within the new administration and empower that individual to demonstrate to the NPT community that the United States has returned to the NPT fold and intends once more to assume a leadership role in furtherance of the treaty's core purposes. For better or worse, many global capitals still look to Washington to set the value to be attached to key global compacts and endeavors, and a clear signal from a new administra-

tion that the NPT is once again being treated as a crucial supporting structure of international peace and security would contribute greatly to its standing in global affairs.

This discussion of NPT withdrawal has progressed from the more narrow and negative consideration of disincentives to treaty defection to a broader and more positive exploration of what can be done to foster incentives for NPT adherence. States are moved by considerations of status and reputation as much as by strategic calculus, and it is in the collective interest of the NPT membership to ensure that the treaty remains in the “must have” category of multilateral accords.

Countering the Threat of Nuclear Terrorism¹

William C. Potter

NON-STATE ACTORS have a variety of means by which they can engage in nuclear terrorism. The four most obvious are:

- the dispersal of radioactive material by conventional explosive or other means;
- attacks against or sabotage of nuclear facilities;
- the theft or purchase of fissile material leading to the fabrication and detonation of a nuclear explosive; and
- the theft or purchase and detonation of an intact nuclear weapon.²

In addition, it is conceivable that non-state actors could instigate nuclear violence by indirect means involving deception or spoofing. For example, terrorists might be able to provoke a nuclear exchange in South Asia by inflicting conventional violence in India or Pakistan in such manner as to suggest the possibility of state complicity. Similarly, one cannot rule out the potential for non-state actors to employ cyberterrorism to exploit weaknesses in nuclear weapons command and control networks or to set in motion a nuclear weapons exchange by launching one or more scientific rockets to spoof an early warning system into thinking that an adversary had launched a nuclear preemptive strike.³

All of these terrorism threats are real and merit the immediate and sustained attention of the new U.S. administration, as well as that of non-American policy makers. Most also require the expenditure of significant resources to reduce the likelihood and impact of their occurrence. The threats, however, are very different and vary widely in their probability of occurrence, their consequence for human and financial loss, and the ease with which their likelihood of occurrence can be reduced.⁴ The focus of this essay is limited to one form of high-consequence terrorism—the theft, purchase, or receipt by other means of fissile material leading to the fabrication and detonation of an improvised nuclear device (IND). It is not the most likely form of nuclear terrorism, but it is one with potentially horrific consequences. It also is susceptible to a variety of forms of intervention, which if implemented could reduce the threat substantially.

1. Discussion paper prepared for the Monterey Nonproliferation Strategy Group, Monterey, California, August 20–21, 2008. The author is grateful to Linton Brooks, Cristina Hansell, Elena Sokova, and Leonard Spector for their helpful comments on an earlier version of this paper.

2. For an extended discussion of these different types of nuclear terrorism see Charles D. Ferguson and William Potter (with Amy Sands, Leonard S. Spector, and Fred L. Wehling), *The Four Faces of Nuclear Terrorism* (New York: Routledge, 2005).

3. The “real world” model for such a scenario is the January 1995 incident in which a legitimate scientific sounding rocket launched from Norway led the Russian early warning system to conclude initially that Russia was under nuclear attack.

4. Most commentary on the probability of occurrence of different nuclear terrorist scenarios is impressionistic in nature. One of the few efforts to develop a more formal model of nuclear terrorist risks is provided by Matthew Bunn, “A Mathematical Model of the Risk of Nuclear Terrorism,” *ANNALS of the American Academy of Political and Social Science* 618 (September 2006), pp. 102–120.

The Nature of the Threat

The potential for non-state actors to build a nuclear explosive has long been recognized by Western experts (including former weapons designers), although there is considerable debate about how technically competent terrorists would need to be. At one end of the spectrum is the view that a suicidal terrorist could literally drop one piece of highly enriched uranium (HEU) metal on top of another piece to initiate an explosive chain reaction. At the other extreme are some Russian nuclear officials who continue to deny the possibility that non-state actors could build a nuclear explosive even if they had access to enough fissile material.⁵ A middle position, articulated with great flair by Peter Zimmerman and Jeffrey Lewis in a 2006 article in *Foreign Policy*, asserts that a terrorist team of nineteen—the same number of hijackers involved in the 9/11 attacks—would be sufficient to procure the HEU, design and fabricate the nuclear device, transport it to the vicinity of the target, and detonate it on location—all within one year’s time and for under \$6 million.⁶

Zimmerman and Lewis, like most analysts, recognize that the most challenging task for would-be nuclear terrorists is procurement of HEU—the type of fissile material terrorists would seek because of its suitability for use in the simplest kind of nuclear weapon, a so-called gun-type device. Terrorists would probably need at least 40 kilograms of weapons-grade or near-weapons-grade HEU in order to have confidence that their IND would work.

There are many potential sources of HEU for an IND. It is estimated that more than 1,700 metric tons (MT) of HEU exist worldwide in more than a hundred different facilities located in dozens of countries. Indeed, more than 50 MT exist at civilian nuclear facilities, many of which lack adequate security.⁷

The risk of terrorist acquisition and use of HEU is the product of many factors in addition to the sheer volume of fissile material. Among the major contributing “supply-side” factors are:⁸

- an underdeveloped nuclear security culture in many countries possessing HEU;
- a focus on technical fixes to HEU vulnerabilities that ignore the “human factor” and minimize the political dimension of the problem;
- underappreciated insider threats, aggravated by endemic corruption in some countries of concern;
- shortcomings in material accountancy, the weakest link in material protection, control, and accounting (MPC&A) in many countries;
- the absence of a comprehensive physical inventory of fissile material in many countries;
- the slow pace of material consolidation, especially pronounced in Russia despite a long-standing

5. This skeptical perspective is reflected in Section 1.1.1 of the June 2006 Russian White Paper on Nonproliferation. An English translation of the document, “The Russian Federation and Nonproliferation of Weapons of Mass Destruction and Delivery Systems: Threats, Assessments, Problems and Solutions,” is available at cns.miis.edu/other/rusfed.htm.

6. Peter D. Zimmerman and Jeffrey G. Lewis, “The Bomb in the Basement,” *Foreign Policy*, November/December 2006, pp. 32–39.

7. See, for example, International Panel on Fissile Materials, *Global Fissile Material Report 2007*; and William C. Potter, “Nuclear Terrorism and the Global Politics of Civilian HEU Elimination,” *Nonproliferation Review* 15 (July 2008), pp. 135–158.

8. The focus in this paper is on “supply-side” factors rather than those related to demand (i.e., terrorist motivations). Many of these vulnerabilities are described at length in Mathew Bunn, *Securing the Bomb 2007* (Cambridge, MA and Washington, DC: Project on Managing the Atom, Harvard University and Nuclear Threat Initiative, September 2007). For a discussion of terrorist motivations related to nuclear terrorism see, Ferguson and Potter, pp. 14–45; and Gary Ackerman and William C. Potter, “Catastrophic Nuclear Terrorism: A Preventable Peril,” in Nick Bostrom and Milan M. Cirkovic, eds., *Global Catastrophic Risks* (Oxford: Oxford University Press, 2008), pp. 402–449.

program dedicated to that objective;

- inadequate funding for MPC&A;
- political instability in some countries possessing significant quantities of HEU (most notably Pakistan);
 - black-market opportunities for acquisition of fissile material and, conceivably, technical know-how, including bomb design information, as illustrated by the A.Q. Khan network;
 - low priority attached to enforcement and prosecution of export control and MPC&A violations, and lax sentencing of those convicted of such offenses (many countries have stiffer penalties for driving under the influence of alcohol than for illegally possessing or transporting HEU);
- inadequate global nuclear security standards;
- disinterest in and/or minimization of the threat of nuclear terrorism (i.e., it's someone else's problem);
 - a proliferation of underfunded and poorly coordinated global counter-nuclear terrorism initiatives; and
- episodic, high-level rhetoric usually unmatched by sustained high-level attention.

Space limitations preclude more than the telegraphic presentation above highlighting some of the more significant obstacles that must be overcome in order to make progress in countering the threat posed by INDs. The following section presents an equally concise set of practical steps that need to be taken in order to mitigate the threat.

Practical Priority Measures

There is no single, simple solution to the problem of nuclear terrorism, even if one speaks only about the danger of INDs. As Michael Levi, among others, has argued, a multifaceted systems approach is required that makes use of an integrated and multilayered defense.⁹ Important components of this defense-in-depth strategy involve enhanced intelligence, disruption of terrorist organizations, and effective nuclear forensics capabilities to establish pre- (and if necessary, post-) detonation responsibility.

Among specific priority measures the next U.S. administration should pursue are:

1. *Give priority to HEU when securing nuclear materials.* The United States must revise U.S. efforts to protect fissile materials abroad so as to make securing, consolidating, and eliminating HEU the most urgent task. The overarching principle guiding policy should be to move toward a world in which fewer countries retain HEU, fewer facilities within countries possess HEU, and fewer locations within those facilities have HEU present.

2. *Minimize the use of HEU in the civilian nuclear sector.* Consistent with an “HEU first” principle, priority should be given to minimizing the use of HEU in the civilian nuclear sector. This approach is a realistic one, given the relatively few commercial applications of HEU and the feasibility of substituting low-enriched uranium (LEU) for HEU in most, if not all, of these uses. Among the specific steps that should be taken in pursuit of this minimization objective are: provide additional incentives to facilities possessing HEU to part with the material and/or convert to LEU use; provide the International Atomic Energy Agency (IAEA) with a mandate to promote

9. Michael Levi, *On Nuclear Terrorism* (Cambridge, MA: Harvard University Press, 2007).

HEU minimization; promote universal recognition of the importance of improved physical security standards; pass national legislation phasing out domestic HEU use and exports;¹⁰ support the negotiation of international agreements minimizing possession, use, and commerce in HEU; adopt HEU management guidelines similar to those already in place for the management of plutonium; adopt a voluntary “code of conduct” setting forth principles designed to reduce the use of HEU; and, to the extent that HEU must be employed, encourage the development of research reactor coalitions and centers of excellence to enable scientists internationally to gain access to state-of-the-art research facilities while minimizing the number of sites at which HEU is used.¹¹

3. *Reduce global stockpiles of HEU in the military sector.* A more difficult but realistic objective is to reduce military stocks of HEU. Russia, for example, should be encouraged to continue downblending HEU beyond the 500 MT covered by the current U.S.-Russian “megatons to megawatts” deal. Ideally, this down-blending process would be accomplished at facilities entailing minimum transport and maximum physical protection to reduce vulnerabilities of material in transit.¹² Progress in reducing military stocks of HEU may be as important for political as technical reasons and could assist in gaining “buy-in” from states currently skeptical about the emphasis given by nuclear weapons states to countering nuclear terrorism.

4. *Promote adoption of stringent nuclear security standards internationally.* By far the most cost-effective approach to impeding non-state-actor access to fissile material is to secure it at its source. A global effort in this regard is required, as the vital first line of defense is only as good as its weakest link. Regrettably, there are many weak links internationally, and no effective international standards are yet in place for the protection of fissile material, including HEU. At a minimum, states should ratify the amendments offered in July 2005 to the 1980 Convention on the Physical Protection of Nuclear Materials and fully implement UN Security Council Resolution 1540. In addition, as Nuclear Threat Initiative President Charles Curtis has suggested, the nuclear profession itself should “identify the world’s best practices in nuclear materials security and accounting” and “create the institutional infrastructure to put these best practices in place in every nuclear material facility in the world.”¹³ A relevant model for defining and disseminating best practices in the nuclear security sphere is the World Association of Nuclear Operators, which mobilized following the Chernobyl nuclear disaster. We cannot afford to wait for a similar trigger event involving the diversion and use of HEU in an IND—a perspective that underlies efforts to create the World Institute for Nuclear Security (WINS).¹⁴

5. *Enhance intelligence sharing.* Despite repeated summit pledges since 1996 by U.S. and Russian presidents, very little if any meaningful data appears to have been shared regarding illicit nuclear trafficking incidents. This intelligence cooperation deficit involving illicit trafficking incidents also characterizes U.S. and Russian relations with the IAEA, as illustrated by the 2003 and 2006 HEU Georgian HEU cases.¹⁵ U.S. and IAEA officials also report that other countries, including France, have been reluctant to share vital informa-

10. In the United States, priority should be given to rescinding the Burr Amendment, which in 2005 loosened HEU export controls.

11. Many of these recommendations are elaborated on in Cristina Hansell, “Practical Steps toward a World without Civilian HEU,” *Nonproliferation Review* 15 (July 2008), pp. 289–310.

12. There is a debate among experts about the priority that should be placed on downblending military stocks. Compare Pavel Podvig, “The Fallacy of the Megatons to Megawatts Program,” *Bulletin of the Atomic Scientists Online*, July 23, 2008; and Bunn, *Securing the Bomb 2007*, pp. 138–141. Bunn (pp. 138–139) suggests that a downblending effort that targeted fissile material from tactical nuclear weapons would be particularly beneficial, given characteristics of those weapons that make them attractive for terrorist seizure and use.

13. Charles Curtis, “Promoting Global Best Practices,” Institute for Nuclear Materials Management, 46th Annual Meeting, Phoenix, Arizona (July 11, 2005).

14. For information about WINS see “WINS for Security Cooperation,” *World Nuclear News*, May 14, 2008; and Nuclear Threat Initiative, “NTI in Action: World Institute for Nuclear Security (WINS),” at www.nti.org/b_aboutnti/b7_wins.html.

15. See E.K. Sokova and W.C. Potter, “The 2003 and 2006 High Enriched Uranium Seizures in Georgia: New Questions, Some Answers and Possible Lessons,” paper presented at the International Conference on Illicit Nuclear Trafficking: Collective Experience and the Way Forward, Edinburgh, November 19–22, 2007.

tion regarding known smuggling incidents involving fissile material. Significant improvements in intelligence sharing and international coordination in dealing with illicit nuclear trafficking, therefore, must be undertaken and probably constitute a necessary condition for coping with IND-related nuclear terrorism risks.

6. *Increase funding of and international cooperation in nuclear forensics.* Major technical advances recently have been made in the emerging field of nuclear forensics. However, research with a pre-detonation focus is constrained by funding. Some U.S. laboratory experts, for example, report that a lack of funds has limited the number of samples from confirmed trafficking cases that have been thoroughly analyzed using the latest technology. In order to enhance cooperation in nuclear forensics, the United States should make more assistance available to relevant international bodies and also should promote the creation of an international samples archive of fissile material.

7. *Promote early conclusion of a Fissile Material Cutoff Treaty (FMCT).* A number of non-nuclear weapon states, especially those from the Non-Aligned Movement, have been reluctant to support counter-nuclear terrorism initiatives, including efforts to minimize HEU in the context of the NPT review process and the IAEA on grounds that an incremental approach diverts attention away from more pressing nuclear disarmament objectives. Although it is not clear how much disarmament progress would be required to alter this perspective, proponents of HEU minimization would be well served if they could point to parallel progress in pursuit of a verifiable FMCT that applied to the military sector.

Conclusions

In his recent book *On Nuclear Terrorism*, Michael Levi seeks to counter pessimism about catastrophic nuclear terrorist threats by articulating what he calls “Murphy’s Law of Nuclear Terrorism”—what can go wrong (from a terrorist perspective) might well go wrong. Unfortunately, one also must be attentive to the probable operation of a similar law as it applies to international efforts to counter nuclear terrorism. In other words, as we adjust our sights to deal with less-than-10-foot-tall terrorists, we should not discount the possibility that poorly conceived and implemented U.S. foreign policy, complacency on the part of other countries, gaping vulnerabilities in MPC&A, and failure to adopt and enforce stringent export control laws and safeguards regulations can serve as a terrorist growth hormone. This is not an argument for focusing most of our resources on the worst-case nuclear terror scenario, but it cautions against the assumption that our luck will hold indefinitely. The next U.S. administration must therefore give high priority to a coordinated and sustained effort to reduce the risk of high-consequence nuclear terrorism involving improvised nuclear devices—an urgent but manageable challenge, a peril that is real but preventable.

Building P-5 Cooperation on Nonproliferation

Robert Einhorn

THERE IS WIDESPREAD concern today that the nuclear nonproliferation regime is eroding. This paper addresses the role the Permanent Five (P-5) countries can play—mainly as members of the U.N. Security Council, but outside the council as well—to shore it up.¹

The Role of the P-5 and Security Council to Date

Today there are many country groupings other than the P-5—and forums other than the UN Security Council (UNSC)—that have important roles to play in fighting nuclear proliferation: the G-8, Non-Aligned Movement, Conference on Disarmament, six-party talks, International Atomic Energy Agency (IAEA), Nuclear Suppliers Group (NSG), and Proliferation Security Initiative, just to name a few. Indeed, most nonproliferation successes over the years have been achieved outside the UNSC and have involved countries other than just the P-5. Moreover, there are potential drawbacks to looking to the UNSC and P-5 to resolve proliferation problems. Disagreements among the P-5 countries may produce gridlock or lowest-common-denominator solutions. The legitimacy of council actions has been questioned on the grounds that its fifteen members are too few to represent the international community as a whole and that its permanent members do not include key rising powers.

However, the role the Security Council and its permanent members can play in curbing proliferation is unique and sometimes indispensable. The P-5 countries are veto-wielding members of the UN organ assigned primary responsibility under the Charter for maintaining international peace and security and major responsibility, along with the IAEA and its Board of Governors, for addressing questions of compliance with the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). When acting under Chapter VII of the Charter, the council has unique authority to impose legally binding obligations. In addition, as the first five countries to acquire nuclear weapons and the only ones recognized by the NPT as nuclear weapon states, they have special expertise on nuclear questions, long experience in controlling nuclear risks, and a special stake in preserving an effective NPT. And while other forums are available to address proliferation issues, experience in recent years with Iraq, North Korea, and Iran suggests that the council and its permanent members will be seized with the most urgent and critical of those issues in the years ahead.

But despite the UNSC's extensive legal mandate under the Charter and the collective political weight of the P-5 countries, the record of the council and its permanent members in dealing with nuclear proliferation has been uneven. At times they have had a substantial impact in reducing proliferation threats (e.g., the role

1. This paper is based on a December 2007 working group report, "The P-5 and Nuclear Nonproliferation," prepared by former government officials from each of the P-5 countries. The authors were Yury Belobrov, Jeremy Greenstock, Li Chang-he, Thomas R. Pickering, and Guillaume Schlumberger; the author of this paper served as project director. Members of the working group did not agree on all of the report's conclusions and recommendations but did agree that they were worthy of consideration by their governments. This paper, which draws heavily but selectively from the report, should not be seen as necessarily reflecting the views of the working group members but only those of its project director (the author of this paper).

of the five in concluding the Comprehensive Nuclear-Test-Ban Treaty (CTBT), disarming Iraq after the first Gulf War, recognizing the non-state actor threat in UNSC Resolution 1540, sanctioning North Korea after its nuclear test). But at other times they have hardly been a factor at all (e.g., lack of follow-through after 1998 Indo-Pakistani nuclear tests, failure to agree on Iraq in early 2003, least-common-denominator sanctions resolutions on Iran).

The UNSC's value in addressing proliferation threats depends significantly on achieving unity, or at least consensus, among the P-5. When the P-5 have been united, as they were in the wake of the first Gulf War, the 9/11 terrorist attacks, and the North Korean nuclear test, the council has been able to act resolutely. But P-5 unanimity has often been elusive. Some P-5 members, especially China and Russia, have preferred to keep the Security Council out of the North Korean and Iranian nuclear issues and to address them instead in the IAEA or in informal groupings like the six-party talks (for North Korea) or the P-5 plus Germany (for Iran). When the council has gotten involved in these cases, China and Russia have usually favored presidential statements over resolutions, hortatory appeals over legally binding measures, continued negotiations over sanctions, and—when sanctions cannot be avoided—non-military penalties over the use of force. Of the P-5 countries, the United States has traditionally been the most supportive of bringing the North Korean and Iranian cases to the council and adopting strong measures there.

Among the reasons for the sharp differences among P-5 members in dealing with the hard proliferation cases is divergent perceptions of the seriousness and urgency of the threat. Clearly, there is no consensus today on the threat posed by Iran's enrichment program. Another reason is differing national interests and priorities. Undoubtedly all five oppose weapons of mass destruction (WMD) proliferation, especially to terrorist groups. But all five have other national interests and preoccupations that may compete with their nonproliferation goals—including political and commercial ties with countries of proliferation concern, the desire to avoid instability in one's region, and domestic political pressures—and these may result in tradeoffs that give a lower priority to overcoming proliferation challenges.

Even when P-5 countries agree on the threat and on the priority it should receive, they may have genuinely differing views on what methods will be most effective to deal with the threat. China and Russia usually take the position that dialogue and negotiations are more likely to get countries like North Korea and Iran to change course than coercive methods, which they believe may only stiffen their resolve and lead to further escalation of an already tense situation. While China and Russia clearly favor carrots over sticks, the United States typically believes that sticks must be at least an important part of the equation if determined proliferators are to be stopped or impeded.

Another factor that has made P-5 consensus more difficult in recent years is that today's proliferation challenges are often seen through the prism of the experience in early 2003 on Iraq—when the P-5 countries were sharply divided over the use of force. In developing draft resolutions on Iran and North Korea, Russia and China have gone to great lengths to avoid stepping on the first rung of what they regard as an escalatory ladder and have sought to make explicit that subsequent council decisions must be taken before further actions would be authorized.

Recommendations

To prevent the erosion of the nonproliferation regime and overcome the most difficult proliferation challenges, the P-5 must show greater unity and resolve than they have done in recent years. Following are some recommendations on the **role and methods** of the P-5 and the Security Council:

Elevate the priority of nonproliferation. It is unrealistic to assume that nonproliferation will always take precedence over other, shorter-term national interests. But given the growing threat of nuclear proliferation to

the international community, it is essential that each of the five countries—in the interest of overcoming their differences and forging a common approach—elevate the importance of preventing proliferation relative to their other priorities.

Complement other groups and forums. The Security Council has unique legal authority and the ability to act expeditiously and decisively when necessary. But at the same time, the P-5 and UNSC should complement, not substitute for, other institutions and forums that have legitimate responsibilities in the area of nonproliferation—for example, the IAEA and its Board of Governors. If the council and its permanent members are seen as overstepping their appropriate role—even if their actions are legally justified—they could end up producing a backlash from other states and undercutting prospects for full implementation of council decisions.

Bolster support for council actions. The P-5 should take steps to strengthen the perceived legitimacy of council actions, including by involving the ten elected council members and other interested member states in informal consultations with the P-5 in advance of council debates and decisions, consulting non-council member states and keeping them regularly informed about implementation of UNSC resolutions, seeking UN General Assembly endorsement of selected UNSC actions (as was done in the case of Resolution 1540), and pursuing measures that may give rise to questions about legitimacy only when justified by their urgency and importance.

A more pro-active P-5 and Security Council. Typically the council has operated in a reactive mode, waiting until acute threats to international peace and security have materialized before getting involved. But intervening only when the threat has fully developed and become apparent will often be too late—especially in the area of nuclear proliferation, where progress toward the acquisition of a nuclear weapons capability (e.g., a nuclear test) may be difficult to reverse. The P-5 countries, therefore, should consider taking steps to impede or head off *emerging* nuclear proliferation threats. That may mean bringing an issue before the council at an earlier stage than it might otherwise be brought there (e.g., when preparations for a nuclear test are discovered). Especially urgent questions can be brought before the council directly, without having to be referred there by another body—but only if they are considered to be threats to international peace and security. For example, well-substantiated allegations of the use of chemical or biological weapons or evidence that a terrorist group is building nuclear weapons on the territory of a member state might appropriately be brought to the council directly.

Country-neutral rules. Proliferation-related issues that come before the UNSC usually involve the particular actions of particular countries. But bilateral relationships between such countries and P-5 members may make it difficult for the council to achieve a consensus on a course of action. Agreement in the council may be easier to reach in the case of a decision or rule that applies not to a particular country or situation currently before the council but to future situations irrespective of the countries involved. UNSC Resolution 1540 (2004) is an example of such a country-neutral measure. One concern about country-neutral rules is that they could restrict the freedom of P-5 and other council members to decide what particular actions to take on each new case as they arise. To address that concern, most country-neutral rules, instead of being self-executing, could require the council to take additional decisions. For example, a country-neutral council decision might say that, in the event of serious proliferation-related threats to international peace and security—such as the use of WMD, a nuclear test, or withdrawal from the NPT—the council would meet immediately to consider what actions, if any, may be needed to maintain or restore international peace and security.

Regular consultations among the P-5. More frequent substantive contacts among the P-5 countries on proliferation issues will not, of course, guarantee unanimity, but they could promote greater convergence in their perceptions of the threat and facilitate more constructive engagement when difficult issues are brought before the council. The five should therefore hold regular consultations on proliferation issues. Nonproliferation experts from capitals should get together several times a year, perhaps accompanied by intelligence

officers who would share information on proliferation threats. In addition, officials responsible for nonproliferation in P-5 missions in New York and Vienna should meet regularly. The Security Council itself should also meet periodically on proliferation issues, not just on an ad hoc basis when a particular threat to international peace and security arises. The UNSC should receive closed-door briefings several times a year by the director general of the IAEA, the chairman of the 1540 Committee, and perhaps senior officials from other international organizations.

Preparing more effective sanctions tools. The threat or imposition of sanctions can be a useful means of motivating states to comply with council demands. To be appropriate and effective, sanctions will vary from case to case, depending on what measures provide the strongest incentives for a particular sanctioned state to comply. It therefore makes little sense to agree in advance on specific sanctions that would be applied in all future cases. But there might be value in P-5 experts exploring the idea of developing a menu of illustrative proliferation-related sanctions that could be updated periodically and drawn upon as individual cases arise in the future. It might also be useful for P-5 experts to study modalities for implementing possible future sanctions, such as the definition of luxury goods, criteria for determining which individuals, groups, or entities are involved in proliferant activities, and methods of screening and inspecting suspected cargoes (all of which are relevant in implementing recent council resolutions). Developing a country-neutral menu of possible sanctions and modalities for implementing them would still require the UNSC subsequently to decide on a case-by-case basis which measures on the menu—or those not on the menu—to adopt. But it could convey the impression that the council is ready and able to act when necessary and could therefore strengthen the deterrent against violations of nonproliferation agreements.

Following are recommendations regarding some **substantive issues** on which the P-5 countries can make an important contribution to promoting disarmament and nonproliferation goals:

A world without nuclear weapons. In support of their NPT Article VI obligations, the P-5 should join together in re-committing themselves to the goal of eliminating all nuclear weapons. The United States and Russia should take the lead in further reducing their arsenals, beginning with a legally binding, verifiable follow-on to the Strategic Arms Reduction Treaty, but other P-5 members (and indeed de facto nuclear powers) should join in the disarmament process. While multilateral agreements calling for equal ceilings on nuclear forces are unrealistic, perhaps a multilateral “no increase” undertaking will become feasible before long. Beyond numerical limits, the P-5 and perhaps others could explore measures to reduce the risk of using nuclear weapons as a result of accidents, misperceptions, or unauthorized actions.

Negative security assurances. At the time of NPT signature in 1968 and at the 1995 NPT Review and Extension Conference, the P-5 joined together in offering security assurances to non-nuclear weapon state (NNWS) parties to the NPT, both positive and negative. In the run-up to the 2010 NPT Review Conference, the P-5 countries should issue a common assurance that they would not under any circumstances use nuclear weapons against NNWS parties to the NPT that are in compliance with their nuclear nonproliferation obligations.

CTBT. P-5 countries that have not yet done so (the United States, China) should ratify the CTBT as soon as possible, and the five should then work together to bring on board the remaining countries whose ratifications are essential for entry into force. Pending entry into force, the P-5 countries plus India and Pakistan should consider a common pledge that they would not be the first to resume nuclear testing.

Controlling fissile materials. The P-5 countries should agree on a plan to get Fissile Material Cutoff Treaty (FMCT) negotiations underway. Pending completion and entry into force of an FMCT, they should adopt a moratorium on the production of fissile materials for nuclear weapons, preferably but not necessarily with the participation of the de facto nuclear weapon states. In parallel with efforts to ban *new* production of fissile material for nuclear weapons, the five should take the lead—together with other states that possess fissile ma-

terials or facilities capable of producing fissile materials—in creating a voluntary, multilateral arrangement to control *existing* stocks of fissile materials, military and civilian. Such an arrangement, perhaps called a Fissile Material Control Initiative, would seek to promote greater transparency, security, safeguardability, and gradual reduction of existing stocks.

Withdrawing from the NPT. The five should seek to discourage unjustified withdrawals from the NPT by promoting a UNSC resolution (perhaps following an NPT Review Conference decision) requiring that, in the event an NPT party gives notice of its intention to withdraw, the council will meet immediately to: (1) consider the impact of the withdrawal on international peace and security and whether it is legally justified (because of jeopardy to the party's supreme national interests); (2) mandate intrusive IAEA procedures to verify the absence of undeclared nuclear facilities and activities; and (3) place all the party's existing nuclear facilities and materials under IAEA safeguards in perpetuity (if they are not already under permanent safeguards pursuant to existing safeguards agreements).

Strengthening verification. P-5 countries should work with other IAEA board members to broaden the agency's verification authority (e.g., to cover weaponization) and ensure that it has the resources to carry out its growing responsibilities. They should take the lead in the NSG to make adherence to the Additional Protocol a condition of nuclear supply. They should also promote a country-neutral UNSC resolution stating that, if the IAEA is unable with existing verification authorities to resolve whether a particular country is in compliance, it should report that to the UNSC, which would then meet promptly to decide whether to authorize the agency to exercise more extensive, supplementary verification rights (beyond those in the Additional Protocol).

Guaranteeing fuel supplies. Various proposals are under consideration to reassure countries that do not have their own fuel cycle capabilities that they will have reliable access to reactor fuel as long as they comply with their nonproliferation obligations. As a group, the P-5 countries are not as central to this issue as the six countries that are currently the major commercial suppliers of enriched uranium (France, Germany, Netherlands, Russia, the United Kingdom, the United States). But they could strengthen the perceived reliability of any fuel supply assurance that is eventually worked out by promoting a UNSC resolution under Chapter VII that endorses the assurance and makes it legally binding.

Accelerating implementation of UNSC Resolution 1540. Resolution 1540 is a potentially powerful tool for strengthening the nonproliferation control capacities of all UN members, but implementation has been slow. The P-5 countries should work with other members of the 1540 Committee to encourage states to put in place the legal authorities and control mechanisms required by 1540 and to assure the financial resources for them to do so.

An omnibus UNSC resolution. In 1992, the Security Council issued a statement at the summit level declaring that “the proliferation of all weapons of mass destruction constitutes a threat to international peace and security.” The P-5 should promote another summit-level statement or resolution incorporating a number of the steps recommended in this paper, reaffirming the commitment of the five to pursue nuclear disarmament, and endorsing some additional principles (e.g., noncompliance with the NPT would constitute a threat to international peace and security).

Conclusion

Many of the policy tools available to the international community—such as multilateral treaties, suppliers' groups, and international verification arrangements—have played an indispensable role in addressing proliferation threats. But these tools have so far been, and may well remain, inadequate to cope with the most stubborn challenges. In those difficult cases, the UNSC and P-5 may provide the best and perhaps only hope of succeed-

ing. The international community should not have to choose between two terrible options—acquiescing in a world with growing numbers of nuclear powers or using force to prevent such a world from materializing. To avoid that choice, the P-5 countries must summon the political will to set aside differences and work together, both within and outside the Security Council, to overcome today's most pressing security threats.

U.S.-Russian Relations on Nonproliferation after the Georgia Crisis: A Skeptical (Re-) Engagement or an (Un-) Happy Divorce?

Vladimir A. Orlov¹

AS A RESULT of the conflict in Georgia, U.S.-Russian relations plunged into the abyss of grave crisis. The depth of it is unprecedented for the last two decades and can even be compared to the Cold War bilateral standoffs, for example, the time of Soviet forces deployed in Afghanistan and the U.S. countermeasures that followed.

The bilateral relations felt repeated ups and notable downs after the demise of the Soviet Union. The freezing point was the U.S. bombing of Belgrade during the Kosovo crisis (1999). However, then and later (e.g., after the launch of the U.S. aggression against Iraq in 2003), strategic cooperation issues such as weapons of mass destruction (WMD) nonproliferation have always succeeded in avoiding victimization and have suffered less from tensions and cooling relations. They have not been hostage to current political developments and have lived their own life: the dominating principle has always been closeness and the high compatibility of the U.S.-Russian interests in WMD nonproliferation. Thus, the parties have followed an unwritten rule invented and adhered to by their predecessors during the Cold War.

Therefore, at the very beginning of this memo it makes sense to ask whether the current bilateral crisis in U.S.-Russian relations is really dramatic for their entire strategic architecture established over the last two decades, above all in the area of WMD nonproliferation and nuclear arms control. And how will current events echo when the power in the White House changes? Will there be any echo at all?

In this memo I am going to analyze specific matters related to the recent history of the U.S.-Russian nonproliferation and arms control dialogue and its prospects in the next twelve to eighteen months. However, I would like to start with a more general picture—Moscow's vision of the present-day Russian-U.S. strategic relationship (and WMD nonproliferation as its integral part). This will help to understand the context of the further deliberations.

Priorities and Options of the Kremlin

First of all, today's bilateral crisis is *not* a surprise for Moscow. The relations have been aggravating slowly and nearly inevitably. The parties, crawling into the crisis, could notice this, but seemingly did not undertake any efforts to prevent the emerging tensions or to think anew. The Kremlin² was preparing its secret diplomatic and political weapons for the potential sharp decline in relations with the United States. In the course

1. Vladimir A. Orlov is president of the Moscow- and Geneva-based PIR Center (Center for Policy Studies in Russia) and editor-in-chief of the journal *Security Index*. His e-mail is orlov@pircenter.org. This memo cannot be quoted without the author's permission.

2. I use this term, even though with a high degree of simplification, to identify the Putin-Medvedev tandem and broader group of ideologists of Russia's present-day strategy.

of this process, Moscow was step by step *reducing* the number of issues (pivotal to the Russian national interests) that could suffer from such tensions. Curiously enough, the U.S. administration was not willing to give new impetus to relations with Russia either. As a result, sluggish summits took place between Presidents Vladimir Putin and George W. Bush in Sochi in April 2008 and Presidents Dmitry Medvedev and Bush in Japan in July 2008.

Secondly, Russia in 2008 has little in common with the country ten years ago, when the Yugoslav drama was unveiling. Nowadays the state has a strong economy, relies on the ideology of rising nationalism, and sees no reason to set up sustainable alliances. Russia considers itself to be a country with self-reliance and an influential international actor *a priori*. It is important to emphasize that for the current makers of foreign policy in the Kremlin the relationship with Washington is not at the top of the list—it falls behind ties with the neighbors, i.e., the Commonwealth of Independent States and Europe, and even behind China. Under these circumstances, confrontation with the United States, even as bad as a new Cold War, is not regarded as something critical, unacceptable, as a psychological red line that should not be crossed. For those who are not well aware of the Russian foreign policy particularities, but who know well U.S. policy making, an anecdote may help. Many in the Kremlin think of the United States in the same terms as Dick Cheney thinks about Russia. Moreover, they do not hide or feel ashamed about this in Moscow and easily agree that they learn from the Americans how to behave in the modern world.

The new Foreign Policy Concept approved on July 12, 2008 maintains that, “the present fundamental development trends, including the emerging multipolarity, and diversification of risks and threats lead to the conclusion that the strategic stability issue cannot anymore be addressed exclusively within the framework of Russia-U.S. relations. Objectively, the time is coming to involve major States in these endeavors, first of all nuclear ones, interested in joint actions to ensure common security.”

Thirdly, the Kremlin admits that there is no longer trust in the U.S. leadership. This is a *new* situation for the bilateral relationship. Even recently, while proving exacerbating differences, Moscow has always made a reservation that “we have trustworthy relations with the White House, and the dialogue, which may be difficult but honest.”

“Americans have deceived us in the confidential dialogue,” Foreign Minister Sergey Lavrov said outright on August 13. He obviously meant Georgia and South Ossetia, but his phrase reflects the present-day mentality in the Kremlin: “Washington cannot be trusted in anything—be it Georgia and Ukraine, or missile defense and arms control.”

And I have to say bluntly—these claims are not only aimed against the current U.S. administration alone, but also against U.S. policy in general.

Fourthly, the Kremlin’s perception of the United States is *changing further*. If previously it was regarded as a key strategic *partner* in solving the principal issues of the international security agenda (above all, international terrorism and WMD nonproliferation), now Washington is perceived as a major ideological and geopolitical *rival* of Russia. And, hence, it will allegedly and irreversibly, directly and indirectly, hamper Russia’s development and strengthening. In late July, “anonymous sources” in the Russian Ministry of Foreign Affairs suddenly stated to Russian news agencies that there was a need to further diminish the U.S. role in Russian foreign policy priorities and cut any dependence of Russia on the United States—the latter allegedly faces a coming “large-scale existential crisis.” The “source” argued, “the United States is at the edge of dramatic and painful changes. First, it will have to learn to live within its means.... We [Russia] may in the future reach the moment when we can afford to stop discussing in substance only those issues that the Americans are interested in.” Russia and the United States, according to the stance of the Foreign Ministry, are “not enemies,” but “unfortunately, are not yet friends, and are less and less dependent on each other.”

Thus, the current crisis in Russian-U.S. relations has turned out to be inevitable. If it hadn’t been for

Georgian aggression in South Ossetia, there would have been some other pretext—a month sooner or a month later. And *unlike all previous tensions, the present-day confrontation will affect (if it has not yet affected) the entire architecture of bilateral relations, including WMD nonproliferation issues and the fate of the nuclear arsenals.*

Disarmament, Nonproliferation, and Medvedev

It is commonplace to assume that Russia's foreign policy is still devised by Vladimir Putin in the White House at the Moskva River quay rather than in the Kremlin. However, such a statement is not fully correct. Without disputing the serious formal and informal influence of Putin on major foreign policy decision making, one has to note that this kitchen is full of chefs. All of them “cook this soup” united by the spirit of the Kremlin team and *common interests*. This presents a sharp contrast to the 1990s, when the interests were fragmented and the pluralism of groups only weakened or even disabled any steps in this sphere.

Immediately after his inauguration President Medvedev, despite the liberal stereotype of his image, visited one of the Strategic Missile Forces bases and spoke about the exceptional role of nuclear weapons in promoting Russia's national security. In further rare foreign policy statements he always emphasized that nuclear weapons were, are, and will remain in the foreseeable future the primary security pillar of the country. The Foreign Policy Concept and other legal and intra-agency acts approved this summer elaborate on this thesis, even though they leave a window of opportunity for nuclear reductions.

According to the latest Medvedev-style official documents, Russia

- still considers its commitments under the WMD nonproliferation, arms control, and disarmament treaties as key obligations aimed at maintaining and strengthening international security;³
- “reaffirms its unfailing policy of developing multilateral foundations of nonproliferation of nuclear weapons, other weapons of mass destruction and means of their delivery”;
- “promotes the early entry into force of the Comprehensive Nuclear-Test-Ban Treaty”;
- “promotes the prevention of deployment of weapons in outer space and the establishment of a system of collective response to potential missile threats on an equal basis, and opposes unilateral actions in the field of strategic anti-missile defense that are destabilizing international situation”;
- “consistently speaks for the prevention of the arms race, opposes attempts to develop and deploy destabilizing, including new types, weapons, such as low-yield nuclear warheads, non-nuclear intercontinental ballistic missiles, and strategic anti-missile systems”;
- “is prepared to negotiate with all nuclear powers a reduction of strategic offensive weapons (intercontinental ballistic missiles, submarine-launched ballistic missiles as well as heavy bombers and warheads they carry) up to a minimum level sufficient to maintain strategic stability”;
- “has been consistently favoring new agreements with the United States^[4] on disarmament and arms

3. As of January 1, 2008, the Russian Federation possessed not more than 900 deployed strategic offensive delivery vehicles and 4,200 warheads assigned to them in accordance with the Strategic Arms Reduction Treaty. Russia keeps fulfilling obligations under the Russian-U.S. Strategic Offensive Reductions Treaty, which cuts the number of strategic nuclear weapons down to 1,700–2,000 by each side before December 31, 2012.

4. According to Anatoly Antonov, head of the Arms Control Department of the Russian Ministry of Foreign Affairs, it is necessary to “make the process of strategic offensive arms reduction and limitation predictable, transparent, irreversible and accountable. In this context it is essential that in the U.S.-Russia Strategic Framework Declaration issued in Sochi on April 6, 2008 Presidents Vladimir Putin and George Bush expressed their intention to develop a legally-binding arrangement following expiration of the START Treaty as a next step to implement the obligations of the two countries under Article VI of the NPT.”

control in the interests of preserving continuity of this process, strengthening confidence building and transparency measures in space activity and anti-missile defense, as well as on issues of nonproliferation of weapons of mass destruction, secure development of peaceful nuclear energy, broadening cooperation in countering terrorism and other challenges and threats as well as settlement of regional conflicts”;

- “will fully contribute to finding political and diplomatic ways of solving the situation regarding the nuclear program of the Islamic Republic of Iran based on the recognition of the right of all States Parties to the Nuclear Non-Proliferation Treaty (NPT) to the peaceful use of nuclear energy as well as upon strict compliance with the requirements of nuclear nonproliferation regime.”

Thus, one may presume that there was no, and there will be no, radical shift in Russia’s WMD nonproliferation and disarmament policy during the first year of Dmitry Medvedev’s presidency.

Medvedev is neither ready nor willing to separate strategic arms issues and missile defense. So any new treaty on strategic offensive arms will become a hostage of the third deployment area for the anti-missile systems. There can be seen no realistic opportunities for parity-based cooperation between Russia and the United States in the sphere of strategic missile defense.⁵ The failed corresponding initiative set forth by Vladimir Putin in Sochi this spring is admitted. The decision on the third deployment site is seemingly irreversible for any future U.S. administration, but Moscow cannot accept it and regards it as an unbreakable barrier for the dialogue. From the Kremlin perspective, the timing for the signing of the U.S.-Polish deal on the missile deployment could not be worse.

What can be done? Many still argue that START I should be extended, at least, for two years, so that the parties may elaborate a new agreement. Some experts reasonably maintain that such a treaty could be a combination of detailed Strategic Offensive Reductions Treaty (SORT) and modified verification mechanisms of START I. This is a traditional approach of Moscow.

But it seems to me that the situation is changing. I have already tried to define the serious skepticism in Moscow about the very possibility of effective strategic dialogue with Washington. What are the recent victories in this area? The only one is SORT, which is a legally binding declaration of intent by nature. The United States has withdrawn from the Anti-Ballistic Missile Treaty. Washington proceeds with its missile defense plans in Europe and ignores the position of Russia. It does not ratify the Comprehensive Nuclear-Test-Ban Treaty (CTBT) and makes Moscow nervous. It does not want to speak at all about outer space.

Suddenly in May 2008 we achieved an important breakthrough in the nuclear sphere: the so-called 123 Agreement on peaceful nuclear energy uses was signed. Finally, we have a mutually beneficial and specific document! Today, many in the U.S. media maintain that it is more profitable for Russia than for the United States, but check the words of a high-ranking U.S. diplomat based in Moscow, Daniel Russell, in his interview with *Security Index*:

The Agreement offers significant benefits to both countries. It makes it clear that we have moved from the old era of nuclear rivalry to nuclear partnership. It establishes a framework for cooperation in developing nuclear energy for peaceful purposes and for enhancing our joint leadership in preventing nuclear proliferation. The Agreement allows U.S. and Russian companies to partner in nuclear joint ventures and to develop new civilian nuclear technologies. In the commercial area the extent of the cooperation will depend on the companies involved, but the 123 Agreement opens the door to a new dimension of cooperation. Beyond the benefits to both countries cited above, the Agreement would permit U.S. industry to sell civilian nuclear commodities to Russian entities, including such

5. See Anatoly Dyakov and Yevgeny Myasnikov, “Strategic Arms Control between Russia and the U.S. after 2009: Is a Compromise Possible?” Manuscript to be published in *Security Index*, Winter 2008/2009.

items as nuclear materials, reactor components and reactors; the same benefit applies equally to Russian industry and its ability to sell civilian nuclear components to U.S. entities. The Agreement will also strengthen U.S.-Russian nonproliferation cooperation, which is very much in the interest of both of our countries.⁶

There can be no better definition. As a matter of fact, here is a specific opportunity for new partnership. ... However, on the eve of the signature of the agreement, the United States hinted that there would be no easy ratification by Congress unless Russia demonstrated strong efforts on curbing the nuclear program of Iran. Russia gets the message and acts properly. So Moscow hears—now everything will be OK.

So what? In the midst of the Georgian crisis, the U.S. Congress simply throws the agreement into the trash bin, out of consideration. Is there anyone who is interested in nonproliferation cooperation?

Why would I mention this treaty, when we speak about arms control? Merely because this recent example illustrates the relationship established in the last few years—Russia is encircled with tons of conditions, and some of these terms have little or no connection to the topic of the agreement. Everyone has become accustomed to enforcing Russia to make concessions, and there is still no guarantee that the agreement may enter into force.

I would dare to ask an uneasy question—under these circumstances, should Russia aim at elaborating a new bilateral treaty with the United States on arms control?

Due to the great unpredictability of the global situation and failed attempts at strategic dialogue with Washington, Russia should abandon the years of practice of symmetric steps with the United States in the area of nuclear arms reduction.

We should keep the door open—let START I die by itself in December 2009. Let us not revive the dead. The verification mechanisms of this treaty are dear to the hearts of many negotiators who worked on START I. However, they are awkward, cumbersome, and may even become useless for Russia under the new circumstances of its relations with the United States.

In general, Russia should keep its hands free as far as nuclear disarmament is concerned. It should proceed from its own interests and calculations instead of plunging into negotiations that have no prospects. Moscow should avoid the temptation of ceding to the promises that the other party cannot observe, as experience shows.

Does it mean that Russia should get back to building up its strategic nuclear arsenal? No, this would be a simplistic way of understanding my words. Russia does not need its current level of strategic nuclear arms. For military and financial reasons, Moscow should be willing to reduce them, step by step. Moreover, Russia should and can demonstrate its leadership in nuclear disarmament. Who said that the Georgian crisis might prevent it from doing so?

Russia can and should reach the 2010 NPT Review Conference with a declaration on gradual reduction of its strategic nuclear arms to 1,000 warheads. Does it need more warheads to repel the threats that the country faces today? Why should Moscow always look at the United States and beg for new arms reduction treaties and endless talks?

Russia can act decisively and independently. Many states expect this step from Russia—they appreciate Moscow's new independent foreign policy course, and along with Russia they plan to be leading actors in the new international security architecture.

6. Interview of Daniel Russell by Dmitry Polikanov, "Russia and the United States Have Unique Capabilities and Responsibilities in the Nuclear Field," *Security Index* 14 (No. 3), pp. 23–25.

In the modern, unpredictable world it is quite difficult to speak about irreversibility. However, Russia cannot neglect the growing trend toward nuclear disarmament. One can remember the initiative of the Hoover Four (which, despite some reservations, got positive response in Russian diplomatic circles), the U.K. steps, and the deliberations in France. In the future, Russia would like to fix the current reductions in the treaty developed by all nuclear weapon states. This could demonstrate our compliance in good faith with the NPT commitments. Probably, it would make sense to work out a schedule for our common drift to the nuclear-free world.

But we have to be honest—this process may take decades. In the next twenty-five years the issue of total elimination of nuclear weapons, which constitute the backbone of Russia's security, is not on the agenda. So, it must be the "Strategy 2050," rather than "Strategy 2020."

Are There Prospects for the Dialogue?

It may seem today that the relations between Russia and the United States have reached the lowest possible point, but in fact, there is some room for further decline—the bottom is still some distance away. It would be enough to elect Senator John McCain to be the U.S. president.

At the beginning of the presidential campaign in the United States, many in the Kremlin and surroundings proceeded from a simple assumption: "We don't care—McCain, Hillary Clinton, or Barack Obama." There was even a cautious idea that it might be easier to meet halfway with a Republican (even such a Republican as McCain) on numerous issues, from post-Soviet space to a "new START." And such Republican fans were even ready to forgive McCain for his notorious statements about the advisability of expelling Russia from the G-8.

But lately the Kremlin and its advisors have managed to radically correct their mistakes. The comments on Georgia made by the U.S. presidential candidates—rhetoric-rich by McCain and minimalistic by Obama—are also attentively analyzed. Obama's "minimalism" in critical comments on Russia, nicely excused by his Hawaii vacation, was appreciated by Moscow, as well as the fact that the list of those who consulted him on the phone on the Georgia crisis were such reputable figures as Senator Sam Nunn and former secretary of state William Perry.

Finally, there is also a matter of psychology. For Medvedev, due to his age and vision of life, McCain is not a good partner for informal dialogue, while Obama is evidently a curious figure for him. Traits of character and interests can eventually become more important than current rhetoric.

Moreover, the initial openness of Obama to a dialogue and his interest in multilateral approaches to conflict resolution may also be welcomed by the Kremlin.⁷

If the situation develops in the favorable direction, the Kremlin and the new U.S. administration could undertake a few important steps in the area of nonproliferation and arms control in 2009.

Certainly, even the election of McCain would not shut the window of opportunity for bilateral dialogue. Time will pass; the dust will settle. But I suspect that the agenda for bilateral debate on nonproliferation and arms control has been brought to a minimum. And there will be no time or desire for multilateral forums. Then there is no doubt that Russia would continue to pursue the current course of diminishing interdependence and play its own game without taking into account the United States.

If Obama comes to power, it depends. The most optimistic scenario implies the cumulative effect of young

7. The scope of this memorandum does not imply the assessment of the vision of relations with Moscow by the U.S. presidential candidates.

presidents. Putin may step aside and give Medvedev the chance to play a leading part. Common interests, technological advancement, lack of bias, and confidence in the effectiveness of multilateral diplomatic mechanisms—all this may facilitate the rapprochement of the two presidents. And then the bilateral agenda may be enriched with the resumption of strategic dialogue, which may gain new momentum.

Joint work is needed on:

- new pan-European security mechanisms;
- revival of the Conference on Disarmament in Geneva;
- the CTBT's entry into force;
- ensuring the success of the 2010 NPT Review Conference;
- a new cooperative approach toward nuclear India;
- a new joint approach toward Iran;
- ratification and implementation of the 123 Agreement;
- possible extension of START I; and
- international agreement on curbing missile proliferation.

All these are the most evident issues for such interaction. In parallel, the parliamentarians should foster their foreign policy and defense dialogue.

I would have liked to conclude this memorandum with some optimistic statements, saying that such a program of action in the area of nonproliferation and disarmament is in the interests of both parties and has good chances for implementation if Obama gets the post in the White House.

However, such a positive conclusion would contradict my own thoughts expressed above.

Obviously, the draft of the bilateral action plan on nonproliferation should be ready and should wait for the right moment. Moreover, it is important to benefit from the change of command in Washington and the first year of the new U.S. administration.

At the same time, the current international context makes the implementation of such a program of action nearly impossible.

Even if an interest in joint steps dominates the new U.S. administration, one should proceed from the assumptions that:

- Russia's current limited willingness to undertake joint practical nonproliferation steps with the United States is low and may even evaporate in the future.
- While many in the Obama camp speak about a "skeptical engagement," or reengagement, with Russia as "the best course," the dominant view in Russia is that a "happy divorce will be the best course" and the less interdependence in strategic issues between Russia and the United States, the better for Russia.
- The Georgia crisis has already profoundly damaged the common nonproliferation agenda. Moscow has noticed, with a mix of disappointment and relief, the congressional decision to freeze ratification of the 123 Agreement. "We knew it would happen. If not because of Georgia, then because of Ukraine, or Iran, or something else," says my friend in government. "Still, we were working hard on showing our willingness to cooperate with the U.S. as much as we could on the Iran case. And now what? OK then,

even if we, frankly, did not want to, we will now have to revitalize our plans of our very own behavior toward the Iran case, very much decoupled from the U.S.," he continues, definitely unhappily.

- Last but not least, while keeping some hopes for an Obama triumph and a new start of relations, Moscow well understands two things. First, even in that case, time will be running out for the resolution of the most important nonproliferation and arms control issues, probably quicker than the relations will be repaired. Second, and most importantly, Russia should be prepared—in its practical policy—for the worst, which would be a McCain triumph. This is the scenario that the Kremlin instructs Russian diplomats and the military to keep in mind in their morning planning sessions.

U.S.-Russia Cooperation on Iran: Aftermath of the Summer War in Georgia

Rose Gottemoeller

FOR ANYONE WHO cares deeply about U.S.-Russian or European-Russian relations, the August 2008 events in Georgia are a great tragedy, as they are for the inhabitants of that beautiful and besieged country—Ossetians, Abkhaz, and Georgians alike. On the back of this “summer war,” the agenda for cooperation is certain to be thrown into doubt for a long time to come.¹

Therein the great tragedy, because the United States, Europe, and Russia are major players in the international arena, and so much depends on their ability to work together to solve critical problems. Moreover, in the last half of 2008, U.S. and European policy makers will have to decide quickly about how to interact with Russia. President George W. Bush, although a lame duck, has urgent issues that he is resolved to continue working until his last day in office in January 2009. Russia is a player on many of them, especially the conflict with Iran over its nuclear program. Senators Barack Obama and John McCain, the U.S. presidential candidates, will face increasing questions about Russia as the debate season opens and they are forced to articulate their foreign policy priorities. It will not be enough, as McCain sometimes does, simply to bash the Russians.

The entire nuclear weapons agenda must remain safe territory for cooperation, whether we are talking about the threat of nuclear proliferation in Iran or North Korea, the threat of thefts of nuclear material anywhere in the world, or the necessity of achieving further nuclear reductions in the United States and Russia. These nuclear issues are so urgent, and the threat of nuclear catastrophe is so great, that priority attention is warranted. Nuclear weapons have nearly always been a haven for continued diplomacy while U.S.-Russian relations have deteriorated. This was true when the Soviet Union still existed, and it has been true through the almost fifteen years of Russian power.

This article focuses on the first of these topics: how to advance toward a solution of the nuclear problem with Iran. For purposes of this analysis, it is assumed that the six parties to the negotiations with Iran—the United States, Russia, France, the United Kingdom, Germany, and China—will continue their fast-track efforts to work the Iran problem while resolving the conflict between Russia and Georgia on a separate track. Although it is inevitable that the summer war will have an effect on many negotiations and interactions between Russia and its Western partners, the urgency of nuclear threats, including the Iranian nuclear problem, generates the necessity for progress on a track that is kept more or less “walled off” from other issues.

Can the United States and Russia Work Together on Iran?

There has been a lot of talk in the United States about whether the Russians are with us or against us on Iran. This question is not new. In the 1990s, it was easy to answer: the Russians were selling centrifuges to Iran, and laser isotope equipment, and other technologies that would hurry Iran toward a nuclear enrichment capability. At the time, the Russians claimed they'd keep an eye on Tehran to make sure that none of their sales went to a

1. This paper appeared in the July/August 2008 issue of *Pro et Contra*.

weapons program, only toward development of peaceful nuclear energy.

The Clinton administration did not believe them, and for good reason. At the time, Vice President Al Gore negotiated a deal with his counterpart, Prime Minister Viktor Chernomyrdin, to shut down the sale of centrifuges, but Washington and Moscow continued to tangle over other nuclear technology sales to Iran well into the Bush administration. Then something happened.

When news about Iran's hidden nuclear program came into the open at the beginning of 2002, Russia's attitude began to shift. Russian officials in private conversations began to talk about how the Iranians had doubled-crossed them, building an enrichment program far exceeding anything the Russians had thought possible. The Iranians essentially blew apart the Russians' self-satisfied notion that they could ride the tiger of Iran's nuclear ambition.

The Russians' shock and annoyance quickly translated into concrete policy. By the end of 2003, they had completed negotiation of a nuclear fuel deal for their reactor project for the Iranians at Bushehr. Under the terms of the agreement, Russia insisted that it would deliver fresh fuel for the reactor and take back any spent fuel to be dealt with in Russia. The Iranians would have neither need to enrich fresh fuel nor need to reprocess spent fuel for the reactor—and would thus avoid acquiring nuclear weapons-usable material.

President Bush has been treating this shift in Russian policy as proof that the Russians are with the United States on Iran—but others, particularly on Capitol Hill, are unconvinced. They point toward the rough game that Russia played in the negotiations about sanctions in the UN Security Council, constantly pushing to water down the impact that the sanctions resolutions would have. Three resolutions later, Russia could not have been that intent on avoiding sanctions against Iran, but the impression remains otherwise in the U.S. Congress.

So we will have to look elsewhere for evidence of Russia's seriousness in countering Iran's nuclear program. One fascinating piece of evidence is Russia's behavior with regard to North Korea.

In June 2008, North Korea dramatically dynamited the Yongbyon plutonium reactor, which had long been the symbol of its illicit weapons program. One year ago, this step would have been difficult to imagine. The six-party talks among North Korea, the United States, Russia, China, Japan, and South Korea had arrived at a bizarre impasse: North Korea had agreed to resume shutting down Yongbyon, but not before the United States lifted sanctions against the Banco di Macao, releasing \$25 million in North Korean assets that had been frozen because of counterfeiting and money-laundering violations by Pyongyang.

The United States continued talking, and in four months announced it had reached an agreement with North Korea: the funds could be transferred, and Pyongyang would resume denuclearization steps. However, international banks were reluctant to handle the transfer because they were concerned about attracting sanctions under the USA Patriot Act—this despite the government-to-government agreement between Washington and Pyongyang.

At this point, Russia stepped in. Moscow asked the United States for full guarantees that Russian banks would not face Patriot Act penalties if they helped with the transfer. Washington gave those guarantees, and shortly thereafter, the Russian Central Bank received the funds from the U.S. Federal Reserve and transferred them to the North Korean Foreign Trade Bank. North Korea thereafter resumed the shutdown of Yongbyon—leading to the destruction of the reactor in June.

Moscow's role in this diplomacy was unique. Although Russia did not itself impose financial sanctions against North Korea, it was willing to take a crucial risk to bring about an important nonproliferation goal. The situation is probably no different with Iran. Moscow may not be keen on sanctions, but it could play a unique role to bring Iran back to the negotiating table. Indeed, aside from the six-party package, the only other diplomatic gambit on the table now is Russia's.

Reintroducing the Angarsk Proposal

In 2006, the Russians first proposed that instead of building indigenous facilities, the Iranians should suspend their enrichment of uranium and join the newly announced international fuel services center that Russia was opening at Angarsk in Siberia. In this way, the Iranians would be relieved of their perceived need to enrich uranium, but they would also escape the expense and environmental burden of dealing with spent fuel and nuclear waste. At the time, the Iranians rejected the proposal, but they seemed to leave the door ajar for discussions in the future. The Russians in the months since have repeatedly reiterated in public forums that the proposal remains on the table, and they are willing to discuss it with the Iranians.

Now is a good time to take a new look at the proposal, for three reasons. First, nobody has many new ideas at the moment. At the beginning of August 2008, Russia refused to agree immediately to further sanctions when Tehran gave an ambiguous answer to the latest proposal regarding economic incentives from the six parties to the negotiations, which also include the United States, the United Kingdom, France, Germany, and China. At the time, Russia's UN Ambassador Vitaly Churkin said, "We have some negotiating opportunities, and rather than focus almost entirely on sanctions we should focus on what those opportunities should be." In this way, the Russians have already invited questions about what new negotiating opportunities might be available.

In addition, the Russian concept of a fuel services center has matured significantly since January 2006, when then-President Vladimir Putin first announced the idea during a speech in St. Petersburg. Finally, the concept of international fuel services centers has gained broad international support, with a significant number of countries as well as the International Atomic Energy Agency (IAEA) expressing willingness to participate in such centers. Iran itself has expressed the aspiration to be the location of a center in the future.

Reintroducing the Angarsk proposal to Iran would give Russia the opportunity to play a leader in the negotiations at a time when confidence in its goodwill has been shaken by the conflict with Georgia. The United States and the European countries participating in the negotiations should welcome evidence that Russia is willing to take significant responsibility for trying to advance the negotiations. They will certainly not abandon the notion of pursuing additional sanctions against Iran, but another live negotiating track with Russia in the lead could help to advance the goal of the negotiation. Russia will, however, have to pursue this track with full-scope communications and transparency with its other partners. It will be no good if Russia is perceived to be going its own way in the negotiations, undermining other efforts to reach agreement with Iran. Russia, therefore, will have to make good use of its diplomatic skills and experience to ensure all parties remain linked and coordinated throughout the talks.

But the basics of a deal are out there: the Russians would invite Iran to join the Angarsk international fuel services center as a "founding partner." This partnership would enable the Iranians to understand the functioning of such a center from the ground up, so that in ten to fifteen years they could host a fuel services center in the Middle East. In order for that goal to become a reality, however, Iran would have to rebuild the trust and confidence of the international community, including the states in its neighborhood who would presumably become its customers for such a center. For that reason, Iran should be willing to eschew fuel cycle activities—beginning with enrichment—for a confidence-building period.

In greater detail, the Russian proposal to Iran could entail the following steps:

The Iranians would be invited to join the Angarsk fuel services center as a prelude to opening a regional fuel services center on Iranian territory in the future. If they are to succeed in that aspiration, they will have to understand how to structure and manage such a center—not only the physical premises, but also the financing system, regulation, safety and security requirements, transport arrangements, etc. Learning how to do it right could be a process of ten to fifteen years, and getting in on the ground floor of the Russian center would give them a big head start in the competition with other countries aspiring to provide international fuel services.

Before the Iranians could ever be successful at running such a regional center, however, they would have to have not only the business acumen and logistical understanding, but also the technical ability to provide fuel services. To acquire such technical ability, in turn, they must have the trust and confidence of the international community—and not only the big powers such as the United States and Russia, but also their regional neighbors. Therefore, they should be willing to use the ten- to fifteen-year period of partnership with the Russians at Angarsk to rebuild international trust and confidence in their nuclear program.

As a first step in that direction, they should be willing to pause their nuclear enrichment program and continue working hard to resolve the remaining questions of the IAEA. However, it should be stressed that the pause is not a permanent halt to the program, but a confidence-building interregnum. As long as mistrust and lack of confidence continue to be a problem for the Iranians, they should not expect to have access to enrichment technology. However, once trust and confidence is reestablished, they could resume that access. The possibility should be held out that if Iran is cooperating fully and completely with the international community, then it should be able to cooperate in international projects involving enrichment and other fuel cycle technologies, including at the Angarsk facility. It must be mentioned, of course, that the current Russian official position is that countries should not have access to enrichment technologies as an aspect of their partnership in the Angarsk facility. Therefore, giving Iranians eventual access, after they have satisfied the concerns of the international community, would require a change in the Russian official position.

Because the trust and confidence of the United States will be paramount to satisfying these concerns, the United States should plan to join fully in cooperation with the Russians at the Angarsk facility, as foreseen in agreements between the Russian and U.S. presidents. However, and this would be a big step for the United States, it should be willing to be present in cooperative activities with the Iranians, first to understand the structure, management, financing, and logistics of the Angarsk Center, and later to participate in projects involving enrichment technologies. This evolution would only occur, it must be stressed, if the Iranians rebuild trust and confidence within the international community.

Iran would be trading off its hard-won indigenous program temporarily, for the promise of a much bigger role in the global nuclear power market of the future. At this precise moment, such a trade seems impossible. However, one year ago, it seemed impossible that the North Koreans would explode the Yongbyon reactor. As with the North Koreans, the Russians could play a big role in communicating to the Iranians that their interests do not permanently lie in defiance of the international community.

The approach outlined above, reintroducing the Russian proposal for Iran to join the Angarsk enrichment center, is squarely in the nuclear policy arena and therefore can be pursued in a fairly straightforward manner with the United States and the European partners of Russia in the negotiations with Iran. Once again, the nuclear arena is a kind of “safe haven” for policy even in troubled periods—and the aftermath of the summer war in Georgia will most certainly be a troubled period in Russia’s relationship with the United States and Europe.

Can the Agenda Be Broader, and Non-Nuclear?

A significant question is, can other policy initiatives also be pursued with Russian cooperation, initiatives not so directly related to the nuclear issues? U.S. and European experts who have been involved with “Track 2” discussions with Iran over the past five years have noted that the nuclear policy arena is becoming more and more difficult to pursue with the Iranians, as Iranian politics have limited the scope for action on the nuclear front. Some Iranian experts, stalwarts of the Track 2 dialogues, have been arrested in Iran and even jailed, which has cast a pall over these efforts.

As a result, many Track 2 organizers are looking for different avenues to pursue, establishing dialogues on subjects that are of special interest to the Iranians, such as antinarcotics programs, earthquake warning and

mitigation, and agricultural and water policies. The notion behind such Track 2 efforts is that they will maintain engagement that has been pursued with great difficulty and continue the arduous process of building up a dialogue with the Iranians that clearly conveys one message: Iran faces a strategic choice. That choice is stark: either continued isolation, or developing a pathway toward resolving the questions about its nuclear program and rejoining the international community. This also is the logic of the proposal broached by Javier Solana, i.e., to try to broaden out the discussion with Tehran, to show the Iranians that their national interests lie in reengaging with the international community across a spectrum of issues embracing economics, politics, energy, agriculture, the environment, and other topics.

Following the 2008 summer war with Georgia, the opportunity to engage Russia in pursuing a wider range of cooperative projects with Iran is likely to be limited. Although nuclear policy may very well be held a safe haven for cooperation, there is likely to be little enthusiasm for a broader agenda of work with Russia. In some cases, there actually might be legislation or sanctions put in place in Washington that would constrain bilateral cooperation with Russia in particular areas, whether involving Iran or other countries.

Despite this real possibility, it is worth considering what other policy arenas might be tapped for joint initiatives that could involve Russia in helping to solve the nuclear problem with Iran. The first category to be considered involves measures that were developed in the Cold War to regulate the U.S.-Soviet relationship. The second involves issues that have been successfully pursued in recent years on the U.S.-Russian agenda, but have not so far engaged Iran.

In May 1972, the United States and Soviet Union signed the Agreement between the United States of America and the Union of Soviet Socialist Republics on the Prevention of Incidents on and over the High Seas. Known as the “Incidents at Sea” or “INCSEA” Agreement for short, it did much to regulate dangerous confrontations between the U.S. and Soviet navies at the height of the Cold War. Whereas such incidents averaged more than 100 per year in the 1960s, they had dropped to 40 per year in 1974.²

The agreement has perhaps been most notable, however, for being a quiet success story. The U.S. and Soviet, later Russian, navies have remained committed to its implementation for more than thirty years, which they have pursued through a well-established annual series of review meetings. When incidents come up, every effort is made to keep them out of the diplomatic and media limelight and to handle them in a routine manner.

INCSEA regulates dangerous maneuvers at sea and restricts other forms of harassment such as shining searchlights onto the bridges of vessels or shooting flares at them. It also provides for increased communication at sea—including advance notification of naval exercises, and regular consultations and information exchanges between the navies.

Naval incidents have been precisely an area of sharp tension between the United States and Iran for many years, in the Persian Gulf and Strait of Hormuz. In January 2008, for example, U.S. media reported that Iranian speedboats were threatening to ram U.S. naval vessels and were even moving toward them at high speed. The United States has not been alone in tangling with the Iranian Navy. The previous year, the Iranians went so far as to seize the crew of a British naval vessel, holding them for nearly a week before their release.

Because naval incidents provide so much in the way of publicity for the Iranian regime, the Iranians may have no interest in engaging in an “incidents at sea” negotiation. However, they might be interested, in the first instance, in understanding how the United States and Russia have been able to cooperate in this area. The United States and Russia could develop a joint briefing based on the history of the agreement’s implementation, emphasizing each of the categories covered—dangerous maneuvers, harassment, pre-notification of actions at sea, and information exchanges. They could also talk about the procedures developed for imple-

2. For background to this discussion, I am indebted to an excellent article by Sean M. Lynn-Jones, “A Quiet Success for Arms Control: Preventing Incidents at Sea,” *International Security* 9 (Spring 1985).

mentation, and in particular, the routine process of annual review.

At the strategic level, the rationale for making such an offer to the Iranians would be to engage them as a state with the potential to be a responsible international actor rather than an international outlaw. The fact that the United States and Russia would make the offer together, as the two former superpower adversaries, would lend particular weight and perhaps cachet to the effort and indicate to the Iranians that they were being taken seriously.

A danger, of course, is that the Iranians would feel that they had achieved some kind of “parity” with their two interlocutors, which they could brag about to some advantage on the “street” in the Middle East. Although this risk would indeed be present, it could be balanced by the fact that the Incidents at Sea Agreement has been kept very low-key throughout its history. It never reflected superpower trappings, but rather a sound, commonsense approach to ensuring that expensive naval vessels would not be damaged in needless games between the two countries.

With the Iranians, the first incentive for joining the discussions might be the legitimizing function of engagement with high-level interlocutors, the United States and Russia. In the end, however, the commonsense, low-key approach of the agreement might also prove attractive, leading to a negotiation that could have some real benefits to security in the Persian Gulf, raising confidence levels among all participants in the negotiations with Iran. Eventually, such negotiations, if they lead to an agreement, could have a broader impact on security in the region.

As far as the United States and Russia are concerned, the very fact that the INCSEA agreement is such a routine success of Cold War diplomacy may enable both countries to use it as a mechanism for joint cooperation on Iran, despite the hangover from the summer war in Georgia. The naval communities involved in implementing the agreement include a wealth of experience on both sides, including many senior retired naval officers who would make responsible and serious interlocutors with the Iranians.

A second category involves issues that have been successfully pursued in recent years on the U.S.-Russian agenda but have not so far engaged Iran. Here, the issue of antinarcotics projects in Afghanistan immediately comes to mind. The United States and Russia have been deeply involved in projects to counter heroin smuggling out of Afghanistan, through Russia to Europe. Organizations that are usually thought of more in adversarial terms than as partners, the U.S. Federal Bureau of Investigation (FBI) and the Russian Federal Security Service (FSB), have been quietly involved in this cooperation and have apparently accomplished some continuing success in working on this problem with the Afghan government.

The issue of narcotics trafficking out of Afghanistan has also come up in the offer that was made to the Iranians in June 2008 by EU Foreign Policy High Representative Javier Solana. Specifically, the offer to the Iranians proposed: “Cooperation on Afghanistan, including on intensified cooperation in the fight against drug trafficking, support for programmes on the return of Afghan refugees to Afghanistan; cooperation on reconstruction of Afghanistan; cooperation on guarding the Iran-Afghan border.”³

Any of these would be possible topics for U.S.-Russian cooperation on Iran, but the drug trafficking issue would seem to be especially ripe for a joint U.S.-Russian approach to Iran. There are three reasons for this. First, all three countries regard heroin trafficking as an urgent national security problem, one that affects public health in a way that may critically damage the state. Second, as mentioned above, U.S. and Russian cooperation in this area is well developed, but like the INCSEA example, it has been kept out of the public limelight—not advertised or politicized by either side. Third, the lead players in both the Russian and U.S. cases are serious professionals in the crime-fighting arena, not usually associated with diplomatic initiatives.

3. See Acronym Institute, “Proposal to Iran by China, France, Germany, the Russian Federation, the United Kingdom, the United States of America and the European Union, 14 June 2008,” www.acronym.org.uk/docs/0806/doc06.htm.

Thus, a U.S.-Russian initiative to engage the Iranians in fighting narcotics smuggling could be a serious but low-key effort that would quickly show results to the inner sanctum of the Iranian leadership. In turn, this could have a significant confidence-building effect and may open up another important channel of communications with Tehran. It might also serve as an entrée for a steady broadening of the agenda, e.g., into the realm of public health and addiction treatment, and into other areas of illegal trafficking that have been difficult to address, such as small arms and human trafficking.

Both of these categories could produce a different quality of dialogue with the Iranians than that which has been experienced recently. Instead of diplomatic efforts conducted at a high level and in the full glare of the international media, the dialogue in each case would be low-key, technical, and directly related to immediate problems that the sides have urgently had to address. If conducted well, the dialogues would immediately build confidence and lead to a broadening of the agenda—coming back, before too long, to touch the nuclear agenda.

Trapped in a Nuclear Corner?

However, it is important to stress, once again, how difficult it will be in the aftermath of the 2008 summer war in Georgia to pursue such broader policy efforts, no matter how low-key they are, or how attached to either recent or long-standing success in the U.S.-Russian relationship. The tendency of policy makers in Washington will be to consider Russia a hindrance, indeed even an enemy to making progress with Iran. This bald fact will make American policy actors loath even to suggest trying new policy initiatives that would engage Russians, no matter how experienced or successful in their previous projects of cooperation.

As mentioned above, nuclear cooperation has nearly always remained a safe haven for cooperation during even the worst days of the Cold War. One of the most serious occasions when even strategic arms control efforts were shut off was when the Soviet Army invaded Afghanistan in December 1979—an interesting irony, since now U.S.-Russian cooperation in Afghanistan could evidently provide an opening for working successfully with Iran. Nevertheless, normally nuclear arms control and nonproliferation cooperation have not been linked to other problems in the U.S.-Russian relationship, but have been allowed to go forward as critical to the national security of both countries. Other areas of economic and political cooperation, however, have often been put on hold and sometimes been constrained by legislation or specific sanctions.

The limitation to working on the nuclear agenda, if it remains strictly in place, could drive the United States and Russia into an unfortunate corner in trying to work the Iran problem. As mentioned above, the whole logic of the proposal broached by Javier Solana is to try to broaden out the discussion with Tehran, to show the Iranians that their national interests lie in reengaging with the international community across a spectrum of issues embracing economics, politics, energy, agriculture, the environment, etc. If these broader areas of cooperation are essentially unavailable in the U.S.-Russian relationship—or for that matter, in the European-Russian relationship, then there will be a significant limitation on how effectively Russia can be engaged to help resolve the Iran problem.

Of course, for some in Russia and abroad, the strategic purpose of the Georgian summer war was in fact to incite a Russian declaration of intent with regard to the future of its cooperation with the West. For these experts, it is clear that Russia declared its intent not to cooperate further with the United States or the Euro-Atlantic community, either going its own way alone, or trying to reestablish a new sphere of influence and the partners to match it. For those who have drawn this conclusion, the idea of Russia cooperating with the United States and Europe to solve the Iran problem is nonsense.

This analysis, quite clearly, does not portray as nonsense the idea of Russia cooperating with the United States on Iran, or on any other issue of profound interest to the national security of either country. There are still many issues of mutual interest that must be pursued, to the equal benefit of both Russians and Ameri-

cans. However, in the wake of the 2008 summer war, this view will be difficult to keep in focus, never mind to act on. The nuclear nonproliferation and arms control agenda normally is well accepted in times of troubles, and so may be turned to once again. It may not be broad enough, however, to solve the key problem of Iran and its nuclear program.

Sino-U.S. Relations: Dealing with a Rising Power

Jing-dong Yuan

SINO-U.S. RELATIONS HAVE become much more stable over the past few years. Beijing and Washington maintain close cooperation on issues ranging from the global war on terrorism to North Korea's nuclear weapons program. In addition, the two countries have also sought to manage disputes that used to irritate bilateral relations with various degrees of success. There are regular bilateral security, arms control, and defense consultations, enabling the two sides to discuss their differences through dialogue.

However, fundamental differences remain between China and the United States over military alliances, the role of nuclear deterrence, missile defenses, use of force, and the resolution of the Taiwan issue. Both continue to view each other's objectives and policies with caution and even suspicion, and neither has let down their guard against future contingencies. Indeed, as a rapidly rising power and the reigning superpower, the two countries face important structural and perceptual challenges that will have far reaching impacts on regional peace and security and on the stability of the post-Cold War international system in the coming decades.¹

This essay identifies key obstacles to the development of Sino-U.S. strategic relations and opportunities for cooperation for the new U.S. administration. The next segment briefly reviews the bilateral relationship in both global and regional contexts, highlighting areas of common interests and differences. This is followed by a discussion that focuses on the bilateral nuclear relationship in terms of Beijing's threat perceptions, nuclear doctrine debates, and nuclear weapons modernization programs. The essay concludes with some recommendations and policy options on how to avoid major confrontation during a period of transition for both China and the United States.

China Rising: Challenges and Opportunities for the United States

The rise of Chinese power has generated wide-ranging discussions and speculation on how Beijing will use its growing power resources—economic and military capabilities, political influence, and “soft power” to advance its interests in both regional and global settings and how a rising—and presumably more assertive China will challenge the dominant position of the United States in Asia.² While debates remain on the domestic challenges that Beijing faces and therefore the limits on its exercise of power, there is also significant consensus that China's power will continue to grow in multiple dimensions, as does its influence over regional—and, increasingly, global—affairs, including the critical issues of nuclear arms control, disarmament, and nonproliferation.³

1. Aaron L. Friedberg, “The Future of U.S.-China Relations: Is Conflict Inevitable?” *International Security* 30 (October 2005), pp. 7–45; Wang Jisi, “China's Search for Stability with America,” *Foreign Affairs* 84 (September/October 2005), pp. 39–48; Evan S. Medeiros, “Strategic Hedging and the Future of Asia-Pacific Stability,” *Washington Quarterly* 29 (Winter 2005–06), pp. 145–67.

2. David C. Kang, *China Rising: Peace, Power, and Order in East Asia* (New York: Columbia University Press, 2007); Joshua Kurlantzick, *Charm Offensive: How China's Soft Power Is Transforming the World* (New Haven and London: Yale University Press, 2007); C. Fred Bergsten, Charles Freeman, Nicholas R. Lardy, and Derek J. Mitchell, *China's Rise: Challenges and Opportunities* (Washington, DC: Peterson Institute for International Economics, 2008).

3. Susan L. Shirk, *China: Fragile Power* (New York: Oxford University Press, 2007); David M. Lampton, *The Three Faces of*

In the Asia-Pacific region, Beijing and Washington both share important common interests and harbor deep misgivings about one another's intentions and policies. Both value and strive for a denuclearized Korean Peninsula through the six-party talks. The two countries also agree that the reduction of tension and maintenance of the status quo and stability across the Taiwan Strait serve their interests. Likewise, China and the United States support efforts in the global war on terrorism, albeit with different emphases on tactics, targets, and intensity as it is applied in the region.

But differences remain. These concern the region's future security architecture and the respective role of China and the United States in regional affairs. Beijing advocates a New Security Concept that promotes dialogue, diplomatic solutions to disputes, and the development of multilateral institutions. While Beijing at the moment does not seek to challenge the U.S. presence in the region and indeed may value the latter's continued engagement as a stabilizing force, over time it is likely to become more assertive in what it considers its sphere of influence, and this may clash with Washington's desire to remain the dominant power in the region. For this very reason, U.S. administrations since the end of the Cold War have continued to emphasize the importance of alliances, the need for resolve in dealing with hard cases, and the role of missile defenses in dissuading and deterring against potential threats from rogue states and/or non-state actors.⁴

Beyond the Asia-Pacific region, Chinese policies on Iran, Africa, and Central Asia are at serious variance with U.S. interests and preferences. Beijing has supported limited UN Security Council sanctions on Teheran but maintains that diplomacy rather than additional sanctions is the best way of dealing with the nuclear impasse. It is strongly opposed to the use of force, even in the face of clear noncompliance.⁵ Likewise, from Sudan to Myanmar, China has also adopted policies and approaches that undermine Washington's objectives to isolate and force change in those two ruthless regimes.

Washington's responses to China's rise have varied from constructive engagement of the George H.W. Bush and Clinton administrations, to the George W. Bush administration's early viewing of the country as a strategic competitor, to the current policy of engaging while hedging China in what is described as a candid, constructive, and cooperative bilateral relationship. To a great extent, the policy is largely driven by the ongoing debates on the future direction of China and U.S. preoccupation with the global war on terrorism, in particular its deep entanglement in both Afghanistan and Iraq. To Bush's credit, he is leaving the next administration a relationship that is stable as much as it is complex.⁶

Nuclear Arms Control and Disarmament

Chinese nuclear doctrine and force modernization have been informed and guided by three general principles: effectiveness (*youxiaoxing*), sufficiency (*zugou*), and counter-deterrence (*fanweishe*).⁷ China's 2006 Defense

Chinese Power: Might, Money, and Minds (Berkeley, CA: University of California Press, 2008).

4. Avery Goldstein, "Power Transitions, Institutions, and China's Rise in East Asia: Theoretical Expectations and Evidence," *Journal of Strategic Studies* 30 (August–October 2007), pp. 639–82; Andrew Erickson and Lyle Goldstein, "Hoping for the Best, Preparing for the Worst: China's Response to US Hegemony," *Journal of Strategic Studies* 29 (December 2006), pp. 955–86; Evelyn Goh, "The US-China Relationship and Asia-Pacific Security: Negotiating Change," *Asian Security* 1 (September 2004), pp. 216–44.

5. Tanya Ogilvie-White, "The Limits of International Society: Understanding China's Response to Nuclear Breakout and Third Party Non-Compliance," *Asian Security* 1 (April 2005), pp. 129–56; Dingli Shen, "Can Sanctions Stop Proliferation?" *Washington Quarterly* 31 (Summer 2008), pp. 89–100.

6. Christopher P. Twomey, "Missing Strategic Opportunity in U.S. China Policy since 9/11: Grasping Tactical Success," *Asian Survey* 47 (July/August 2007), pp. 536–59.

7. Yao Yunzhu, "China's Nuclear Strategy," in Yan Xuetong, ed., *World Politics—Views from China: International Politics* (Beijing: New World Press, 2007); "Summary of Key Findings," Conference on U.S.-China Strategic Nuclear Dynamics, Beijing, June 20–21, 2006, www.csis.org/media/isis/events/060620_china_nuclear_report.pdf.

White Paper emphasizes developing land-based strategic capabilities, both nuclear and conventional, but provides no specifics on the existing arsenal, the structure of the Second Artillery Corps (China's strategic nuclear force) order of battle, or the projected size of the nuclear force. It indicates only that China will continue to maintain and build a lean and effective nuclear force. While Chinese analysts acknowledge that deterrence underpins China's nuclear doctrine, it is more in the sense of preventing nuclear coercion by the superpower(s) without being coercive itself, and hence it is counter-coercion or counter-deterrence. Rather than build a large nuclear arsenal when resources and relevant technologies have become available as the superpowers pursued during the Cold War, the size of Chinese nuclear weapons has remained modest and compatible with its doctrine of minimum deterrence.⁸

China is undergoing nuclear modernization even as the other nuclear weapon states are reducing their nuclear arsenals. Granted, among the five nuclear weapon states, China claims to maintain the smallest number of operational nuclear weapons. The most recent publicly available sources estimate that China's current nuclear forces consist of approximately 176 deployed warheads and an unknown number of additional warheads in its stockpile.⁹ China's strategic arsenal is deployed on a triad that includes about 121 land-based missiles, fifty-five strategic bombers, and an unspecified number of submarine-launched ballistic missiles on board the newly deployed Jin-class nuclear-powered ballistic missile submarine. Of this relative small arsenal, only a limited number of missiles (approximately twenty-six) are capable of striking targets throughout the continental United States (compared to the hundreds that the United States could use to strike Chinese targets).

Beijing has long maintained a no-first-use stance and has called on other nuclear weapon states to adopt the same position. In addition, China has pledged negative security assurance to non-nuclear weapon states of the Treaty on the Non-Proliferation of Nuclear Weapons and the nuclear-weapon-free zones. It opposes the deployment of nuclear weapons on foreign soil and endorses the principle of nuclear disarmament. It in principle supports efforts to start the negotiation on a Fissile Material Cutoff Treaty (FMCT) although for years it has sought to include negotiation on banning weapons in outer space and fissile materials at the Conference on Disarmament.¹⁰ China has also signed although not yet ratified the Comprehensive Nuclear-Test-Ban Treaty (CTBT), with the latter imposing significant constraints on its ability to develop new nuclear weapons. It is believed to have stopped producing weapons-grade highly enriched uranium and military plutonium, although it retains a stockpile sufficient in quantities for future expansion of its nuclear arsenal, should the need arise.¹¹

The 2006 Defense White Paper highlights China's commitments to international arms control and non-proliferation agreements. While Beijing has yet to ratify the CTBT, which it signed in 1996, the paper notes China's coordinated activities between the People's Liberation Army (PLA) and the various government agencies in preparation for that treaty's implementation. China's signature of the CTBT means that China continues to accept the constraints imposed on its ability to test, a critical step in the development of new nuclear weapons, especially the miniaturization of nuclear warheads for new ballistic missiles currently under development.

8. Wu Zhan, "Heweishe" [Nuclear Deterrence], *Meiguo Yanjiu* [American Studies], (Spring 1988), pp. 16–22; Yao Yunzhu, "Chinese Nuclear Policy and the Future of Minimum Deterrence," *Strategic Insights* 4 (September 2005), www.ccc.nps.navy.mil/si/2005/Sep/yaoSep05.asp; Jeffrey Lewis characterizes China's nuclear doctrine as one of maintaining "the minimum means of reprisal." Lewis, *The Minimum Means of Reprisal: China's Search for Security in the Nuclear Age* (Cambridge, MA: MIT Press, 2007).

9. Robert S. Norris and Hans M. Kristensen, "Chinese Nuclear Forces, 2008," *Bulletin of the Atomic Scientists*, July/August 2008, pp. 42–45.

10. Lisbeth Gronlund, David Wright, and Yong Liu, "China and a Fissile Material Production Cut-Off," *Survival* 37 (Winter 1995–96), pp. 147–67; Paul Meyer, "Is There Any Fizz Left in the Fissban? Prospects for a Fissile Material Cutoff Treaty," *Arms Control Today* 37 (December 2007), pp. 18–22.

11. David Albright and Corey Hinderstein, "Chinese Military Plutonium and Highly Enriched Uranium Inventories," Institute for Science and International Security, June 30, 2005; David Albright, Frans Berkhout, and William Walker, *Plutonium and Highly Enriched Uranium 1996: World Inventories, Capabilities, and Policies* (Oxford: Oxford University Press, 1997), pp. 76–78.

In addition, the White Paper also reaffirms China's steadfast opposition to the proliferation of weapons of mass destruction and its support of the United Nations in playing a more active role in this area.

Chinese positions on nuclear arms control and disarmament can be influenced by three aspects of nuclear developments in the United States. The first revolves around the overall strategic orientation of U.S. nuclear forces. Chinese analysts argue that the end of the Cold War has resulted in a unique environment in which the United States is gradually achieving unchallenged nuclear dominance, as the result of the declining Russian nuclear arsenal and still-limited Chinese nuclear capabilities. The alarming consequence of this newfound U.S. nuclear primacy is that Washington may be emboldened to pursue policies of unilateralism and preemptive attack more aggressively than in the past.¹²

In addition, Chinese analysts have expressed considerable concern about perceived U.S. efforts to develop new types of nuclear weapons. The United States has already achieved unchallenged conventional weapons dominance and nuclear primacy but is still pursuing research and development programs that will eventually make nuclear weapons more readily usable and capable of penetrating hardened underground facilities. For instance, the Bush administration's nuclear Reliable Replacement Warhead program, when fully operational, plans to produce 125 new nuclear warheads annually up to the year 2022 to maintain a sizable U.S. nuclear arsenal that is reliable, safe, and available for use. These new nuclear warheads would also be easier to maintain and have a longer service lifetime than existing systems. Chinese analysts argue that the U.S. attempt to change the nuclear balance of power in this way could lead to renewed nuclear arms races between nuclear weapon states, induce threshold states to openly pursue nuclear weapon capabilities, and fundamentally undermine global nuclear nonproliferation efforts.¹³

Finally, U.S. missile defenses pose the most serious challenges to China's second-strike nuclear capabilities. Given the size and sophistication of its small nuclear arsenal, survival of first strikes would be critical in maintaining the credibility and reliability of its deterrence. What Beijing is seeking—and this may well explain its current nuclear modernization efforts—is to reverse the growing imbalance as a result of U.S. missile defense plans, not to mention the new nuclear security environment that China has to face, namely, the emergence of India and Pakistan as nuclear weapon states and North Korea's nuclear weapons development. This may also explain China's efforts in developing a limited antisatellite capability, given the U.S. dependence on its space assets for military operations and what Beijing considers as the precursor to weaponization of outer space—U.S. missile defense systems.¹⁴

The future of Chinese nuclear weapons modernization will also likely influence its position on and commitments to international arms control and nonproliferation agreements and vice versa. The 2006 White Paper offers a glimpse of Chinese priorities and preferences. For instance, the document fails to mention the negotiation of an FMCT, which was included in the 2004 paper. Indeed, one recent article by a PLA analyst suggests that China may need to boost its nuclear arsenal in anticipation of growing pressure for it to participate in multilateral nuclear disarmament.¹⁵ Likewise, Beijing may wait for Washington to first ratify the CTBT before its legislature, the National People's Congress Standing Committee, starts its own ratification process.

12. Keir A. Lieber and Daryl G. Press, "The End of MAD? The Nuclear Dimension of U.S. Primacy," *International Security* 30 (Spring 2006), pp. 7–44. For reactions from U.S. analysts, see Jeffrey S. Lantis, Tom Sauer, James J. Wirtz, Keir A. Lieber, and Daryl G. Press, "Correspondence: The Short Shadow of U.S. Primacy?" *International Security* 31 (Winter 2006–07), pp. 174–93.

13. Dingli Shen, "Upsetting a Delicate Balance," *Bulletin of the Atomic Scientists*, July/August 2007, p. 37; "U.S. Develops Nuclear Blueprint to Implement Strategy of Preemption," China International Institute for Strategic Studies, April 12, 2006.

14. Bruce W. MacDonald, *China, Space Weapons, and U.S. Security* (New York: Council on Foreign Relations, 2008); Hui Zhang, "Action/Reaction: U.S. Space Weaponization and China," *Arms Control Today* 35 (December 2005), pp. 6–11.

15. Wang Zhongchun, "Nuclear Challenges and China's Choices," *China Security*, No. 5 (Winter 2007), pp. 52–65.

Looking Ahead

The new administration faces both challenges and opportunities in responding to China's continued rise as a political, military, and economic power on the global stage. Beijing and Washington have been able to cooperate on a number of issues that advance both countries' security interests. At the same time, there remain significant differences and obstacles to further cooperation, given Beijing and Washington's differences over the priorities, approaches, and some substantive issues in managing current and future proliferation challenges. Failing to manage these differences could have serious long-term implications for regional stability and the prospect of peaceful transition for both China and the United States.

The United States should continue to encourage China's integration into the international system and its growing role in global and regional affairs as a stakeholder. It should be pointed out that Beijing has no intention, at least for the next two decades, to openly challenge core U.S. interests; nor does it harbor any ambition to replace the United States as the reigning superpower. While advocating a multipolar world, China is fully aware of its own limitations and the risk of alarming its neighbors, should it launch a bid for global dominance. Its top priorities remain economic development and growth so as to maintain domestic harmony and stability.

But Washington must also be sensitive to and cognizant of Beijing's core interests and its desire to be recognized and treated as an equal partner with regard to the Taiwan issue and in Northeast Asia. Most critically, it needs to be assured of U.S. intentions in the region as Washington strengthens its ties with Tokyo, Seoul, Canberra, and New Delhi. This requires better and more regular channels of communication between the two countries. At the moment, three such channels are in operation. In August 2005, a semi-annual Strategic Dialogue (or what Washington prefers to call Senior Dialogue) was launched in Beijing. In December 2006, a Strategic Economic Dialogue, to be held twice a year, was also initiated. The two dialogues cover a broad range of bilateral, regional, and global security and economic issues. Since the late 1990s, bilateral Defense Consultative Talks also have been held annually. In addition, a Track-II bilateral conference series on nuclear weapons and strategic stability in Sino-U.S. relations, cosponsored by the Center for Strategic and International Studies and the China Foundation for International Strategic Studies, has been held since 2004.

What is missing is the issue of whether and to what extent a Sino-U.S. nuclear relationship could and should be introduced and nurtured. Unlike the U.S.-Soviet strategic nuclear arms control interactions during the Cold War, official U.S.-China discussions on nuclear issues are much less frequent and remain superficial at best. Such a lack of exchanges and frank discussion allows misperceptions and apprehensions to feed on suspicions and worst-case scenarios, which in turn could become self-fulfilling prophecies whereby each sees the other's actions as threatening and vindicating one's own assessments. A key question to ask is whether the United States should accept the concept of a stable, mutual, but highly asymmetrical nuclear deterrence relationship with China. The resolution of the North Korean nuclear issue and the recent developments in the Taiwan Strait offer a unique opportunity to return and restore such a nuclear balance between the two countries. This could pave the way for engaging China in other global nuclear disarmament issues, from a fissile material cutoff to CTBT ratification, and to jump-start a multilateral process that could eventually start a process toward a nuclear-free world.

Progressive and Systemic Steps: Short- and Medium-Term Goals

Harald Müller

THE TASK GIVEN to me by this title is puzzling. I have little problem with “progressive steps,” as a step which does not take the backwards direction is progressive by definition. But what is a “systemic step”? And even by cheating a little and changing “systemic” into “systematic,” the puzzle does not become significantly easier. Systematic relating to what system? And how can a step—which is a movement and thus a process—be brought in accord with a system that is, after all, something stable if not static?

So let's try to be a bit theoretical and academic before returning to practical issues. Constructivists have taught us that we have a choice between systems within the boundaries of the historically given. We are not condemned to engage in eternal arms races, to keep up balances of power by fighting wars every now and then, to circulate around each other in eternal rivalry and hostility. This “Hobbesian world” is certainly a possibility, but no necessity. If we shape a world like that, it is by our own (and our peers') choices. There are other models available, a contractual world of competition and cooperation—the “Lockean model,” or a world completely subject to the rule of law, the “Kantian model.”

Let me thus conceive of “systemic” or “systematic” steps as the orderly move from one type of system to another one, a process in which arms control and disarmament plays a key role. Thirty years ago this would have been judged as a pipedream: the key term of arms control at the time was stability, and the best hoped for was the stasis of a frozen conflict that would not explode into a cataclysmic intercontinental exchange of some gigatons of explosive yield. The six years from 1986 to 1992, however, taught us that arms control and disarmament can have a quite different, much more dynamic function: to serve as a useful vehicle of system transformation. In the transition from the Cold War to a system (unfortunately transitory) of cooperative security between East and West, arms control played a key role.

At the same time, it has to be admitted that containing and reversing the arms race was far from an autonomous process. Arms control/disarmament, dealing with a specific field of the total conflict, cannot carry the burden of transformation all by itself. To the contrary, it was thoroughly embedded in changing political conditions. Arms control/disarmament and these political conditions reinforced each other in a virtuous circle of winding down the conflict and building up confidence and cooperation. Arms control and disarmament, in this context, have a unique capability that has been fully exploited during those years (only to be forgotten in the decade after): to demonstrate, by renouncing options of offensive, surprise, and superiority, that no evil intentions are there against the rival/partner in the process. From these experiences, I would deduce functions of arms control/disarmament that go way beyond the classical three objectives of stability, cost reduction, and damage limitation. I denote these functions as follows:

- signaling benign intentions;
- creating a ratchet effect for the process (achieving relative irreversibility);
- setting a baseline for nuclear disarmament; and
- moving forward on the disarmament road in an orderly and risk-minimizing manner.

Signaling Benign Intentions

Today, we are at the outset of a new arms race. If things go wrong, the next three decades may see progressively increasing tensions among the major powers, with the contenders for world power engaged in an ugly competition for the military pride of place. In such an environment, the Treaty on the Non-Proliferation of Nuclear Weapons is unlikely to survive. If the clear signal is maintained—as it has been for the better part of the present decade—that nuclear weapons are here forever and that going and remaining nuclear is “what states do,” then nuclear proliferation will proceed, with all the consequences. It is this basic consideration that has motivated Henry Kissinger, George Shultz, William Perry, and Sam Nunn to undertake a daring assault at conventional wisdom and push for nuclear disarmament.

Taking the lessons of the end of the Cold War as seriously as nuclear disarmament, we have to conclude that the disarmament train will not move without being energized by a changing relationship among the major powers. I submit that it would be too bold to aim at a Kantian world system. I suggest that we have a more realistic model in the “concert.” The Concert of Europe, which kept the peace in the Old Continent under difficult circumstances for more than a generation, did not ignore rivalries among the great powers or the possibilities for clashes between them. But it established a system of formal and informal rules that cries out for emulation: every great power respected the vital interests of every other one. Unilateral use of force was excluded. There was a regular system of consultations for “everyday politics” as well as close consultations in any crisis. The domestic affairs of every partner were viewed as its private affair.

As this brief sketch indicates, the “concert” presented a hybrid, combining elements of the three models of an international system quoted above. From the Hobbesian model it took great-power rivalry as a given but accepted the proposition of the two other models that this was the problem to manage rather than the unchangeable state of nature. From the Lockean model it took the idea to install rules of competition. From the Kantian model it took the notion that some of these rules should be in the form of binding law, and that the self-interest of the participants would induce them to follow the rules for their long-term objectives rather than to breach them permanently out of the conveniences of the short term.

These principles could serve well as the basis for establishing viable relations among today’s major powers. Respecting vital interests means accepting that major countries want to have some influence in their immediate geostrategic neighborhood; this should be accepted in exchange for a “no use of force” pledge. All parties should turn back to the UN Security Council as the ultimate arbiter of military action other than for self- or alliance defense. For as long as one or several of them reserve the right to go to war at will—for whatever laudable reasons—distrust will prevail that the user of violence may try to steal a geostrategic march on the rest, and “concerted” relationships will remain impossible or, at best, too imperfect to maintain order.

What was missing in the old “concert” of the early nineteenth century was the crucial contribution arms control could make today. Vital interests of the big ones today cannot be divorced from their balance of forces. As long as this balance, and the particular way great powers design their military postures and deploy their armed forces, gives implicit signals that they are intentionally prepared to take on their peers if they see fit, disharmony and cacophony rather than concert will be the name of the tune. In its striving to maintain superiority, the United States has hurt these vital interests repeatedly and continues to do so. Arms control measures fit for correcting this practice would certainly include binding limits on missile defenses (to keep the deterrents of others viable as long as they believe they need them), an agreement to prevent the deployment of weapons in space (to avoid highly destabilizing showdowns in the various orbits that would jeopardize essential assets of surveillance, early warning, and communication and may lead to instant strike options against ground targets). It might also be necessary to consider renouncing long-range ballistic conventional options. While such options have the advantage of helping replace nuclear attack options in certain scenarios against “rogue states,” they add to the anxiety of rivals with small nuclear arsenals—China being the prime example—that they might become the target of conventionally armed disarmament strikes.

It is in the same context of signaling benign intention that the stabilization measures written large in the “gang of four” pronouncements gain their political meaning. De-alerting, in particular, would be a helpful step not only in reducing drastically the risk that things go wrong unintentionally, but also signaling clearly that parties do not intend things to go wrong. This effect could be further enhanced if reinforced by some transparency measure; why not place liaison officers with real-time, tamperproof, secure communication lines at launch centers and launch bases.

Cessation of the Arms Race

The next series of steps is meant to put the arms race ghost back in its bottle. This corresponds completely with the core of my 2007 paper.¹ I draw from the respective section heavily, since I found little to add:

- The signature and ratification of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) would probably prevent the introduction of revolutionary (in contrast to incremental) new nuclear weapons design, thereby preventing qualitative jumps in nuclear weaponry. As the first step toward this state of affairs, the *signing* of all states of the CTBT would commit them not to undertake steps that undermine the objectives and purposes of this treaty (thereby strengthening the commitment of a moratorium on nuclear tests). In addition, the parties could agree on the next of the “handwringing conferences” to bring the verification system of the CTBT into force provisionally, even before the treaty itself is permitted to take full force. This would present a step forward and open the hope that, some time in the future, the CTBT might become reality. It would require statesmanship from the Indian government and no doubt come at some political cost, but as India aspires to a position at the global table, an exercise in responsibility would be well taken. Reciprocal steps by China and Pakistan might make a move possible.
- No new type agreement among the nuclear weapon states. This would guarantee the end of a qualitative nuclear arms race. They would commit to not researching, developing or deploying types of nuclear warheads fundamentally different from those present in their possession. It would be their task to define “fundamentally different” in technical terms. They would register existing types in a form that would make them distinguishable, but not give away proliferation-relevant information. One possibility would be to base registry on the *Nuclear Weapons Databook*, an open source. This measure would complement the CTBT in its role of curbing the qualitative nuclear arms race. National laboratories would be tasked strictly with granting the safety and security of existing arsenals, pending their complete elimination.
- The negotiation and entry into force of a Fissile Material Cutoff Treaty (FMCT) with a reliable verification system, accompanied by a voluntary commitment of the two biggest nuclear weapon states to reduce existing stockpiles and to transfer the fissile material extracted from dismantled warheads to the civilian sector. Such a treaty would put a cap on the quantity of nuclear weapons materials out of safeguards. Verification is necessary in order to put nuclear and non-nuclear weapon states on a level playing field with regard to fuel cycle activities, thereby opening the door for a universal, non-discriminatory multilateral solution for how to reduce the risk of ostensibly civilian but de facto dual-use enrichment and reprocessing facilities under national control (see report by the International Atomic Energy Agency’s [IAEA] Multilateral Nuclear Approaches Expert Group).

Establishing a Baseline

Nuclear disarmament is a long, drawn-out process. One of the most important preconditions for it to progress is

1. Harald Müller, “Advancing the Process and Objectives of Nuclear Disarmament in the 21st Century: What Are the Most Pressing Disarmament Challenges?” Paper prepared for the Monterey Nonproliferation Strategy Group, June 2007.

the incremental establishment of a baseline against which progress can be measured and from which a process can be started that yields increasingly reliable and accurate information about what nuclear weapons possessors do in fact possess. Increasing transparency is indispensable if disarmament is to proceed: as long as nuclear weapon states are not confident that they know what their peers have, they are unlikely to relinquish their nuke of last resort.

- In order not to lose such baseline data that—however insufficient—emerged from U.S.-Soviet/Russian strategic arms control and reduction agreements, the Strategic Arms Reduction Treaty (START) process must be rehearsed, and the verification rules agreed on under START I must continue.

- It is in the “baseline” function that the verification system of an FMCT would play its transformational role. Cutoff verification activities afford the international community the confidence that it has sufficient knowledge about the size, sites, and structure of the nuclear weapon complexes. After several decades of such activities, the likelihood that something is hidden somewhere would converge towards zero. Such a system might be dual, as in the EU-IAEA relationship: sensitive verification activities might be conducted by an inspectorate exclusively drawn from the nuclear weapon states, while the results are reviewed, and broader inspections conducted, by regular IAEA inspectors. Such an arrangement would keep sensitive information to those who possess it anyway. In contrast, an FMCT without verification, as promoted by the disarmament-averse U.S. administration, continues discrimination and has no value for nuclear disarmament. It should thus not be pursued.

- In this context, either in the FMCT or in a separate agreement, states without comprehensive safeguards, i.e., the nuclear weapon possessors, should agree to supply an inventory of their fissile material and, from thereon, to maintain a precise material accounting system on changes (i.e., the transfer of such material to civilian uses, material losses, or final disposition). The initial inventory could be deposited at the IAEA but kept confidentially in a safe that could only be opened by all participating countries inserting their codes. As the disarmament process progresses, at one point these inventories would be transferred to the IAEA as the basis for a verification system covering existing stocks of fissile material in the—so far—unsafeguarded countries.

- The building of a nuclear weapon registry. The “no new type” agreement proposed above comes close to the 1994 suggestion by then German foreign minister Klaus Kinkel to establish a nuclear weapons registry. Entries would be nuclear warheads in all forms: deployed, stored, scheduled for refurbishment, in the process of refurbishment, and shelved with the physics package and the non-nuclear parts separated. Changes would be indicated in annual reports. Together with the existing stocks inventory this would present a full picture of weapons-related holdings. If desired, the phase-in procedure could be handled in the same way as for existing stocks, with an initial period where the information, though provided by the state holders, would be kept confidential.

- Sub-strategic nuclear weapons should be eliminated. They are dangerous because they are at the greatest risk to be stolen, used without due authority, or used in a use-them-or-lose-them situation. In our era of mega-terrorism, their time has passed. Two main obstacles stand in the way. The first is Russian doctrine, which should be changed operationally to employ strategic bombers in the missions now given to tactical weapons, after a thorough review of the doctrine and a serious effort to eliminate all those envisaged missions not absolutely necessary to preserve national security. The second obstacle is NATO's stubborn insistence on a) a first-use option, and b) the deployment of such weapons on the territory of European non-nuclear weapon states, where they serve no rational strategic purpose. Pending the complete elimination of nuclear weapons, these weapons are to be withdrawn to the United States and put under central custody. It would be preferable to have a binding agreement among the nuclear weapon states to eliminate this category of nuclear weapons altogether.

Reductions

- As indicated, the START process should be reinstated. The first step would be the agreement to continue with START I verification measures. Following this, a START III aiming at a ceiling of 1,000 warheads each for Russia and the United States might be achievable. With strict limits on national missile defenses, it might be possible to return to the stability principle of START II to phase out all intercontinental ballistic missiles that have multiple independently targetable reentry vehicles, and it might be worth considering to deploy submarine-launched ballistic missiles equally with one warhead each. Since this would mean a considerable reshuffling of existing postures, one might prefer to reserve this step for a START IV agreement, which would further reduce the holdings of the two big nuclear weapon states. At this point, requests to other nuclear weapon possessors to enter at least verification measures for their arsenals, if not agreed first reductions (rather than unilateral, verified capping declarations and reductions), would be in order.

- Measures to deal with sub-strategic nuclear weapons. As mentioned above, sub-strategic nuclear weapons should be eliminated. It would be preferable to have a binding agreement among the nuclear weapon states to eliminate this category of nuclear weapons altogether. Pending the complete elimination of nuclear weapons, for an interim period during which the political obstacles are tackled, these weapons would be withdrawn from deployed status and stored centrally in a nuclear weapon state. It is possible that some of the East European NATO members and Turkey would be unhappy. This uneasiness must be taken very seriously. NATO nuclear weapon states, the United States in particular, should enter in detailed consultations to clarify how extended deterrence would be upheld in the absence of deployed tactical nuclear weapons, most likely by a combination of conventional and nuclear means. The enhanced flexibility in U.S. and British doctrine goes a long way to preserve the necessary options, but it is essential to communicate this to the concerned allies in the most unambiguous and comprehensible way possible (a virtue in which U.S. doctrinal parlance does not always excel!).

Irreversibility

- The capping of existing arsenals. This is an urgent measure in order to prevent an incipient new multilateral arms race. At the moment, only the U.S. and the Russian Federation have announced capping numbers in the context of the Strategic Offensive Reductions Treaty. These numbers address deployed warheads, not reserves and spares; they leave out tactical warheads. We have a reasonably precise idea about the range of the upper ceiling in the case of Britain, and a more vague imagination of the French arsenal. We know close to nothing about China, India, Pakistan, and Israel. We need would unilateral declarations of the form "National holdings of nuclear weapons will not surpass the number of..." Combined with a moratorium by the Permanent Five on fissile material production and a cutoff point for others after which they would observe a moratorium as well (assuming that their present arsenals do not yet satisfy perceived security needs), pending the negotiation and entry into force of a FMCT, this would stop the momentum of the incipient arms race of today.

“Declarations on future capping” avoid the demand on the smaller nuclear weapon states and possessors, notably China, India, and Pakistan, to stop the quantitative enlargement of their arsenal at once, something they might not yet be prepared to do. They would be invited to declare the maximum number of warheads in their possession for, say, the year 2012, with a view of not surpassing this number anytime in the future. The maximum might contain some “headroom” if fissile material and weapons production fall short of the perceived security needs. The declaration might also contain conditions (e.g., no dense nationwide missile defense system anywhere that would compromise moderately sized deterrent forces). The possibility to provide for headroom would also serve to preserve

some opacity. The risky embarrassment of announcing an arsenal that was too small to impress would be avoided, yet more transparency would be gained. We would understand what counts in the smaller countries as the minimum deterrent.

A major problem is how to deal with Israel in this context. Not joining the others in granting both a finite end to the nuclear buildup and in providing some transparency would isolate Israel and arouse the anger of its neighbors. In emulating the others and thereby admitting to nuclear weapons possession, Israel would break its time-honored tradition of opacity and probably force Arab leaders to officially and formally react to this situation of non-deniability. This could exacerbate tensions in the region, which could only be contained by some move on the Middle East Nuclear-Weapon-Free Zone path, for example, the installation of a group of governmental experts for exploring ways and means to move forward with this zone, including possibilities to tackle in the future issues like verification, action in cases of noncompliance, conditions for entry into force, and the like. North Korea might be another difficult case, but for inverse reasons: Pyongyang might wish to publicize its “ceiling,” while the rest of us would like it to shut up. The best means to deal with this embarrassment would probably be benign neglect and the continuation of the six-party talks.

- Dismantling excess warheads. Present undeployed warheads should be dismantled in a verified way and the fissile material therein uniformly transferred to civilian uses. This rule should apply for all future reductions. The only exception would be the minimum number of warheads needed to serve as spares for the routine circulation through the refurbishment cycle in order to uphold the agreed postures. The consideration behind vast reserve holdings is the option to reconstitute large arsenals. Reconstitution has no place in a systematic process of nuclear disarmament—it is its opposite, denying the very objective toward which this process is meant to be headed.

- Dismantling test sites. France has led the way in this regard by rendering unusable its South Pacific test sites. Dismantling test sites signals very clearly the intention not to return to the development of nuclear warheads. It is thus a logical step after the test ban and the agreement not to develop new types of warheads.

- Dismantling the nuclear weapons complex. This incremental process starts with the cutoff and is followed by dismantling the test sites. In its end state, it would consist of an agreement that each nuclear weapons possessor holds exactly two facilities: A plant to refurbish nuclear warheads and a laboratory to check the safety, security, and reliability of existing warheads. All other facilities would be registered and dismantled under international verification. At the end of the process, the plant would also be closed, and the laboratory would be transformed into a site for nuclear forensics to have expertise available in the case of a suspected or real breakout.

Conclusions

In this think-piece, I have related nuclear disarmament steps to the broader question of how peaceful order might be installed and maintained among the big powers and what contribution a nuclear disarmament process would play in this context. This puts a slightly different perspective on disarmament than is usually applied. I have not dealt with the issues of security and safety that loom large in the “gang of four” approach, nor addressed in detail doctrinal issues (which are tackled in Linton Brooks’ paper), nor thought the entire process to the end of a real “zero,” since I am convinced that it is too early to conceive of the last miles in this protracted way toward a nuclear-weapon-free world. If even only a share of the measures discussed here are realized, and if the conditions of a “concert” are met, it will be a different world, and different, much more daring steps might become possible. But we are too far from this happy situation to even envisage the possibilities that would then open up.

Taking Disarmament Seriously: Prospects for Changing Strategic Doctrines

Linton F. Brooks

ONE COMMONLY ADVOCATED step to facilitate progress toward disarmament is for those states possessing nuclear weapons to reduce reliance on such weapons in their strategic doctrines. The theory is that as nuclear weapons play a smaller and smaller role in strategic doctrine, it will become easier for the security establishments of the individual states to contemplate their elimination. This paper examines the prospects for reducing the role of nuclear weapons in strategic doctrine and considers possible policy options that the new U.S. administration might consider in this area.¹

It is important to distinguish between two forms of reduced reliance. States may reduce the number of missions that they assign to their nuclear forces, or they may reduce the importance of nuclear weapons in meeting their most important security challenges. Reducing the number of missions is easier to envision but less important. The United States, for example, explicitly or implicitly sees its nuclear weapons as protecting and reassuring allies, discouraging arms races, deterring biological or chemical attack, and deterring states from supporting nuclear terrorism. In the past, it has explicitly seen nuclear weapons as compensation for conventional inferiority against the European ground forces of the Soviet Union. Formal rejection of a nuclear role in any of these missions would clearly—and correctly—be seen as reducing reliance on nuclear weapons in U.S. strategic doctrine. Yet as long as the core function of deterring nuclear attack on the United States remains crucial, reducing these other missions will do little to make the United States willing to eliminate its nuclear arsenal.

One important distinction between secondary or additional missions and the core purposes of nuclear weapons is the degree to which the unilateral action of a state can realistically reduce reliance on nuclear weapons. The United States, if it chose, could unilaterally decide that the threat of devastating non-nuclear retaliation was sufficient to deter biological attack and thus remove deterrence of such attack from the list of appropriate missions for nuclear weapons. In contrast, if a state like Pakistan believes it requires nuclear weapons to deter the overwhelming conventional superiority of its neighbor, no internal action it can take can remove that need. Nuclear weapons can only play a reduced role in the security of such a state if political conditions change so that conflict threatening national survival is unlikely, or at least sufficiently less likely to justify the risk of nuclear elimination.

Missions and Functions Assigned to Nuclear Forces by Various States

Analysis of this issue is further complicated by the wide disparity in missions that various states possessing nuclear weapons assign to their nuclear forces. As noted above, the United States assigns a number of missions or functions to its nuclear forces. An oversimplified view of the missions assigned by other states might include the following:²

1. This analysis does not examine the feasibility or durability of nuclear disarmament or the fundamental question of whether U.S. national security or international stability would be improved by such disarmament.
2. This list omits North Korea, whose motivation is speculative and which, at the time of this writing, may be on a path to

- Russia, in addition to deterring nuclear attack, sees its nuclear forces as deterring conventional aggression or intervention by NATO and the United States. It appears to have no interest in extended deterrence and has been silent on using nuclear weapons to deter chemical and biological attack.
- France implies an expansive but vague set of missions, asserting that “nuclear deterrence protects us from any aggression against our vital interests ... whatever form it may take. Our vital interests, of course, include the elements that constitute our identity and our existence as a nation-State, as well as the free exercise of our sovereignty.”³ France hints that its forces could provide an extended deterrent for the rest of Europe.
- The United Kingdom maintains nuclear forces primarily as a hedge against an uncertain future. As then-Prime Minister Tony Blair said in announcing the Trident replacement decision,⁴ “We believe that an independent British nuclear deterrent is an essential part of our insurance against the uncertainties and risks of the future.” British nuclear forces support extended deterrence through commitment to NATO, but the primary British emphasis is on deterring nuclear (but not chemical or biological) threats to the United Kingdom itself.
- China stresses its policy of “no first use” and thus assigns no missions to nuclear forces beyond deterrence of nuclear attack on China. Many U.S. observers believe, however, that Chinese nuclear weapons use might be considered if the United States were to intervene militarily in a conflict over Taiwan. Chinese statements in this area are—understandably—ambiguous.
- India appears to assign few if any secondary missions to its nuclear forces. Many believe that it maintains them primarily to further its ambitions to be regarded as one of the great powers of the world.
- Pakistan maintains nuclear forces entirely to prevent attack by a conventionally superior India. Pakistan has promulgated no formal doctrine, but Lieutenant General Khalid Kidwai, director-general of the Strategic Plans Division, suggested Pakistan would resort to nuclear weapons use if India conquers a large part of its territory, destroys a large part either of its land or air forces, strangles Pakistan economically or destabilizes the state politically.⁵
- Israel has never acknowledged possessing nuclear weapons, but if it does have a nuclear arsenal (as is widely assumed), the purpose is to prevent a threat to its existence from conventional attack by its largely hostile neighbors.

A Possible Approach

Disarmament is unlikely to be feasible unless the international community can reduce the need to rely on nuclear weapons for the core security of states. Such efforts, however, require major improvement in political relations and the resolution (or at least mitigation) of decades-old (or even more ancient) disputes. The cliché that states do not fear each other because they are armed but are armed because they fear each other applies with particular force to nuclear weapons. Reducing this fear will be a daunting task and will require involvement of political actors well beyond the arms control and disarmament community. Abstract discussion of the global conditions that would allow a Russia or a Pakistan or an Israel to reduce dependence on nuclear weap-

abandon nuclear weapons.

3. Presentation of the nuclear-powered ballistic missile submarine *Le Terrible*, speech by Nicolas Sarkozy, Cherbourg, France, March 21, 2008.

4. British White Paper, “The Future of the United Kingdom’s Nuclear Deterrent,” December 2006, foreword by the prime minister, p. 5.

5. Michael Krepon, “The Stability-Instability Paradox in South Asia,” Henry L. Stimson Center, December 2004.

ons may be useful, but it is difficult to see what near-term practical steps could arise from such discussions.

Thus, the initial focus should be on a more modest goal: reducing secondary missions so that all nuclear states limit the purposes of their arsenal to deterring nuclear attack or other threats to national existence. Such an approach is subject to the valid criticism that it is the disarmament equivalent of looking for a lost quarter under a lamppost because the light is better. But in addition to being potentially useful in itself, concentrating on secondary missions may help create an environment where meaningful international discussion of fundamental purposes of nuclear weapons becomes possible.

In parallel with this approach, the academic community should give greater attention to the political conditions that would allow states possessing nuclear weapons to reduce their reliance on such weapons for fundamental missions associated with national survival. Until there is broad consensus on these conditions, serious discussions of reducing reliance on nuclear weapons for core security issues will not be possible. Once that time arrives, it will be useful to have removed (or at least understood) the distractions of secondary missions for nuclear forces.

International Options

There would appear to be little role for formal multilateral efforts by governments in seeking to reduce the role of nuclear weapons in the strategic doctrines of individual states. The disparity in attitudes and approaches among the nuclear states, the historic difficulty “strategic dialogues” have had in getting beyond platitudes, even bilaterally, and the complexities involved in including some states outside the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) regime, all combine to limit the effectiveness of government-level multilateral discussions. One possible exception might be for the five NPT nuclear powers to use the upcoming 2010 NPT Review Conference to discuss what changes in doctrine (if any) would allow additional progress on Article VI.

While the prospects for formal government action are slim, there is still a role for international discussion. Bilateral discussions, probably at the Track 2 or Track 1.5 level, can continue to clarify what roles nuclear weapons play in the strategic thinking of some states. Obvious examples are the role of nuclear weapons in contingencies involving Taiwan, greater clarity about what France means by stating that nuclear deterrence protects against “aggression against our vital interests ... whatever form it may take,” and better understanding of the Russian view of the possible need to use nuclear weapons against NATO intervention.

Domestic U.S. Options

The most fruitful approach is almost certainly to work within individual states, starting with the United States. There are at least three reasons for an initial focus on the United States. First, the impending change in the U.S. administration may result in greater willingness to consider change. Both major candidates say they will adopt different nuclear policies than the current administration, and both have explicitly focused on the 2010 NPT Review Conference, suggesting a greater attention to the international legal nonproliferation regime. Second, because the United States embraces a greater number of nuclear missions, it has greater scope for change. Finally, the United States, as one of the two largest nuclear powers, inevitably sets the example for how nuclear powers should behave.

There are several actions that a new U.S. administration could take to reduce the number of problems for which nuclear weapons are seen as an acceptable solution. Most would be perceived internationally as reducing U.S. reliance on nuclear weapons. In rough order of difficulty of accomplishment, they are:

- *Establish a policy of last resort.* The actual (though unwritten) policy of the United States and the

belief of virtually all policy makers is that nuclear weapons are only appropriate for use as a last resort.⁶ Saying so formally would help remove the perception that the United States contemplates promiscuous use of what should remain the ultimate weapon.

- *Clarify the U.S. stance on preemption.* The Bush administration National Security Strategy endorses preemption in certain circumstances. Despite the common belief, this is not a significant departure from the actual doctrines of the past. The strategy was not intended to contemplate nuclear preemption but was interpreted that way by many outside government. No clarification was issued by the White House, in part because of the traditional reluctance of all presidential advisors to limit flexibility. At a minimum, a suitably senior official in the next administration could make a statement that, “While as a matter of policy we attempt not to constrain the actions of future presidents, none of the president’s senior advisors can contemplate circumstances in which preemption with nuclear weapons would be appropriate.” This should be coupled with direction, probably in the new administration’s Nuclear Posture Review, that the United States not plan for preemptive nuclear use.⁷

- *Break the link between chemical or biological attack and nuclear retaliation.* It is the policy of the United States to deter chemical or biological attack through the threat of overwhelming, devastating retaliation. While not being specific about what form this retaliation will take, neither the Clinton nor the Bush administrations ruled out including a nuclear component to such retaliation. U.S. conventional forces are now sufficiently powerful to impose devastating retaliation without resort to nuclear weapons.⁸ The United States could make it clear that the retaliation for chemical or biological aggression, while devastating, will not have a nuclear component.

- *Quietly drop the concept of dissuasion.* As used in the Nuclear Posture Review, dissuasion means that the United States will discourage any state (other than Russia) from seeking parity with the United States. The only plausible state that might seek such parity is China. But it has become clear that China does not intend to engage in a quantitative arms race. Dropping dissuasion as a function of nuclear weapons thus will have little practical effect but serves to reduce the number of functions or missions perceived as being assigned to nuclear weapons.

- *Rebuild trust between NATO and Russia.* Russia has established a doctrine of using nuclear weapons to compensate for conventional inferiority in comparison to a presumably hostile NATO and the United States. Some believe it may be developing specific weapons to implement that doctrine. The next president could make a major diplomatic effort to rebuild trust between Russia and the West. If successful (which is unlikely), this could reduce incentives for Russia to expand its emphasis on nuclear weapons for countering conventional attack.

These steps are modest. They will reduce the number of missions that the United States assigns to its nuclear forces and may reduce the perception of the importance of such weapons in U.S. strategy. They will not, however, reduce the importance of nuclear weapons in responding to core security challenges. Still, except for the final item, all of them are almost certainly feasible. Collectively they may be useful in beginning the long process of reducing the importance of nuclear weapons.

6. Note that this is not the same as establishing a doctrine of no first use, which would be exceptionally controversial and thus far more difficult. “Last resort” suggests an *in extremis* situation involving U.S. vital interests but could, at least in theory, apply in the absence of prior nuclear use. For additional discussion, see McGeorge Bundy, William J. Crowe Jr., and Sidney Drell, “Reducing Nuclear Danger,” *Foreign Affairs* 72 (Spring 1993), pp. 140–55.

7. Such direction will have limited practical effect since the difference between planning for retaliation and preemption is small.

8. This is not true in the case of Russia or China, but nuclear retaliation against these nuclear weapon states is a special case that should not alter the general policy being suggested.

Prospects for Changing Strategic Doctrines

Nikolai N. Sokov

ATENTION TO NUCLEAR strategies is a relatively new item on the nuclear disarmament agenda. Following the end of the Cold War many thought that nuclear weapons lost their rationale and could be eliminated in a fairly short period of time. Debates in the United States about new missions for nuclear weapons and the emergence of new missions in Russian nuclear strategy came as a disappointment—even a shock—to the disarmament community and were widely regarded as an attempt to protect nuclear weapons from elimination. In response, a thesis emerged that if nuclear doctrines are modified, then justification for their continued existence would be removed, and that would facilitate nuclear disarmament. The debate about strategy, however, is primarily limited to the West; analysts in Russia and other nuclear weapon states have remained largely silent or even supportive of new missions.

Elements of Nuclear Strategy

One can differentiate between two categories of nuclear missions, which can be for convenience dubbed as “strategic” and “limited use.” These categories differ by probability of change and the approaches required for their modification.

In most cases, the very presence of nuclear weapons creates the situation of “implicit,” or strategic, deterrence among states that possess them; the only exception is the relationship among close allies. The logic of strategic deterrence is simple: attack with nuclear weapons will meet a nuclear response capable of inflicting unacceptable damage. The extreme example of strategic deterrence is the balance between the United States and the Soviet Union during the Cold War. Today, it has transformed into “just-in-case” deterrence: both the United States and Russia regard nuclear weapons as insurance against an unforeseeable development of the international situation, but no longer fear a surprise strike by the other side. The utility of nuclear weapons receded together with the downgrading of the mission.

This mission will, by and large, exist as long as nuclear weapons exist and is very difficult to change or remove. It will completely disappear only with nuclear disarmament.

Of greater consequence are limited-use, or war-fighting, missions that have proliferated in the recent decade—missions that assume limited use of nuclear weapons for tangible military objectives. Examples include destruction of enemy bunkers or de-escalation. It is these missions that provide rationale for continued reliance on nuclear weapons and a justification for modernization of both explosive devices and delivery vehicles.

It seems only logical that the task of modification of nuclear strategies should concentrate on these war-fighting missions.

The Egg vs. the Chicken

The relationship between nuclear strategies and disarmament can be conceptualized in two opposite ways:

(1) Nuclear strategies (especially new, non-traditional missions) are an artificial construct designed to provide rationale for the continued existence of nuclear weapons. In other words, weapons drive strategy. Strategy can be changed (new and old missions eliminated) by political decision because nuclear weapons do not serve rational political or military goals in the first place.

(2) New missions for nuclear weapons are a response to a changing international environment. When—and if—challenges that require “nuclear response” disappear, nuclear weapons can be eliminated as well. This line of thinking assumes that strategy drives retention and, if necessary, modernization of nuclear weapons.

In the end, the choice between these two options boils down to deciding which of the two—missions or weapons—is the independent and which is the dependent variable.

As we consider these two points of view, we must keep in mind that in the world of policy making, perceptions are real. A threat does not have to exist; it is sufficient that policy makers and military professionals believe it does. Further, that threat might not require a nuclear response—it is sufficient that decision makers do not see a credible alternative. As long as a sufficiently large part of the public and/or sufficiently influential segment of the elite adhere to those perceptions, revision of strategy becomes very difficult.

Review of Nuclear Missions in Nuclear States

Evidence of what drives reliance on nuclear weapons is contradictory and does not provide firm guidance for the choice between the two points of view.

In the **United States**, renewed interest in nuclear weapons resulted from the perception that there were new missions that required reliance on nuclear assets (“bunker busting” is just one example). The decline of that interest in recent years is associated primarily with the increasingly widespread belief, even among the military, that these missions can be supported by long-range conventional assets. Thus, missions seem to be an independent variable: first, a mission is defined, then a search for assets is conducted; nuclear weapons are just one among possible choices. Interestingly, this point of view originated in liberal quarters: the Federation of American Scientists has argued for years that the “bunker-busting” mission can be as—or more—effectively supported by conventional assets.

A similar causal chain can be identified in **Russia**. The search for new missions began with concern about the United States and NATO using conventional forces against Russia. Nuclear weapons are regarded as the primary means of deterring such attack or early termination of conflict if it starts (de-escalation). Nuclear weapons are not the only option for supporting this mission: according to the existing National Security Concept and the Military Doctrine, reliance on nuclear weapons is temporary, until such time as “de-escalation” can be supported by conventional weapons.

Last year the **United Kingdom** stopped one step from complete denuclearization. There is no well-defined mission for continued nuclear status, and opponents of Tony Blair’s decision last year to retain a small force of submarine-based nuclear missiles pointed out that the strategic rationale for that decision was artificial, and, in fact, it is. Strategy was “invented” to justify retention of a certain status in the international system.

France has a rather peculiar nuclear strategy—a mix of U.S. and Russian views. It is difficult to decide whether mission was driving reliance on nuclear weapons or missions were “invented” to support nuclear status. Recently, France has decided to reduce the arsenal, yet rationale for its existence has changed little since it was first adopted in 2001 under Jacques Chirac.

China for decades adhered to the most elementary version of nuclear strategy—the basic implied deterrence relying on a very small force, which was usually not even on combat alert. Although publicly available

information is extremely limited, there are reasons to believe that recently, as the technological level and the numbers of Chinese nuclear weapons have begun to grow, China is considering more sophisticated approaches to nuclear strategy. At a minimum, this involves more advanced concepts of strategic deterrence based on assured second-strike capability, but perhaps also a version of Russian de-escalation strategy. It can be said that originally nuclear status dominated strategy (the latter was rudimentary and served as a justification of status), but more recently nuclear modernization has begun to serve as a means toward supporting new missions.

Israel is a “classic” case of nuclear weapons capability at the service of a mission (deterrence of vastly superior conventional forces of neighbors).

For **India**, one would be hard pressed to identify a “legitimate” war-fighting nuclear mission beyond the general notion of deterring other nuclear powers. It appears that the Indians seem more interested in nuclear status per se rather than regard nuclear capability as a means toward a specific purpose. Nuclear weapons, one could say, come first for India, and missions follow.

The situation is probably different in **Pakistan**; it seems to regard nuclear weapons as a counterbalance to India’s overwhelming conventional superiority as well as, more recently, its nuclear capability. In this sense, Pakistan is similar to Israel.

From this brief review, one can derive several interesting conclusions:

First, there is, indeed, a large number of cases where weapons precede strategy—mission is developed to give rationale to the nuclear status. In most cases this mission can be classified as “implicit” deterrence that is produced by the mere fact of presence of nuclear weapons in another state.

Second, there are rather numerous examples of the opposite relationship: nuclear weapons are viewed as a response to threats and challenges that are genuine or are perceived as such; in these cases missions emerge before assets. Disenchantment with lack of progress in nuclear disarmament after the Cold War is caused at least partially by failure to anticipate that “new” nuclear missions could emerge in the post-Cold War environment. Dismantling this category of nuclear missions is not a trivial task because threats they are supposed to counter are real or are perceived as real, which is the same for political and military planners. Minimization of the role of nuclear weapons usually involves “asset substitution”—a mission that is associated with reliance on nuclear weapons is assigned to conventional weapons (forces).

Third, in all cases that belong to the second category (mission precedes status), nuclear weapons support deterrence of vastly superior conventional forces. In these situations, straightforward downgrading of the role of nuclear weapons is particularly difficult. These efforts are likely to encounter strong domestic resistance because the logic of such missions seems credible to domestic constituencies, and policy of nuclear minimization is likely to be regarded as “making the world safe for conventional war.” There will be reluctance to engage in “asset substitution” because it is likely to be more expensive. Nuclear weapons are expensive during the R&D and initial buildup period, but after that they could in some cases serve as a cheaper substitute for conventional assets; this is particularly true today when conventional weapons have to be high-tech to be effective. Furthermore, an attempt at asset substitution risks causing a conventional arms race.

Fourth, in most cases nuclear missions—even war-fighting ones—do not require large arsenals, thus the process of nuclear arms reductions can continue for some time without “mission modification.” This is an essentially positive conclusion because deep reduction of nuclear weapons can be implemented without waiting for a far-reaching and sometimes controversial change in strategies. Of course, it is necessary to keep in mind that without a major reassessment of strategies these reductions will remain just optimization of arsenals and can only be regarded as an intermediate step toward disarmament.

Challenges to Revision of Nuclear Strategies

As noted above, the mission of “existential” or “just-in-case” deterrence will only disappear completely together with nuclear arsenals. On the domestic politics side, this process is likely to be relatively easy, however, after the political decision to eliminate nuclear weapons is made by all nuclear states or just by states with the largest nuclear arsenals.

Far more challenging is minimization of reliance on nuclear weapons in states that regard these assets as a response—perhaps suboptimal, but nevertheless unavoidable—to security threats and challenges that are regarded as real. There are two ways to address this problem.

One is politically easier and involves asset substitution: instead of arguing over the question of whether missions that are assigned to nuclear weapons are genuine, it is possible to argue that the same missions can be supported by conventional assets. This is the option that is apparently winning the argument in the United States right now.

This method might be more problematic in some other countries, however. An emphasis on conventional weapons will be associated with a very large increase in defense spending that might be crippling to the economy. Gradual transition is hardly a valid argument either: for example, the Russians are likely to say that this is exactly their policy already, and it will take the next ten or fifteen years and that the delay is inevitable for technical and financial reasons. Insistence on fast dismantlement of the role of nuclear weapons could be painted by opponents as an American desire to “make the world safe for American conventional power.” In fact, this argument is already used by Russian conservatives. The same argument is likely to be used by China, albeit less publicly, and its dependence on conventional forces will probably not last as long.

Finally, some states might regard complete reliance on conventional weapons as simply unattainable—Israel, for example, can never hope to match potential Arab foes, or at least, such argument can be easily made. The same is likely to be argued in Russia—that it will be impossible to reach the same capability of conventional forces as the United States and NATO (while Russians will hardly say that publicly, they will also assume China).

The other way is more difficult and time-consuming and would involve stabilization of political relationships. Where Russia is concerned, for example, this option will entail a new Treaty on Conventional Armed Forces in Europe together with a large package of confidence-building measures so that the government in Moscow could argue that reliance on nuclear weapons is no longer necessary, even without a major increase of spending on conventional forces. The same could be achieved, with time and effort, in the Middle East and in South Asia.

The feasibility of the second route is perhaps greater than it might appear at first glance. The norm against nuclear use or the threat of nuclear use is quite strong in all nuclear weapon states and around the world. Consequently, nuclear threats are not a very practical way to meet real or perceived threats. While it is hardly possible to achieve complete harmony, it seems feasible to lower the perception of external threat sufficiently to make reliance on nuclear weapons seem excessive. In the end, the security situation has to be improved just enough to facilitate a change in the domestic political lineup so that “pro-nuclear” groups do not hold the veto over decision making on this issue. Then, if the political leadership decides to minimize reliance on nuclear weapons, it will be able to do so.

It is also advisable to seriously consider alternative ways to improve security, such as enhancement of the role of international law, giving more weight to international organizations, including multilateral bodies that can provide independent assurances that security treaties are implemented. While international law is hardly a panacea, unilateral approaches to ensuring national security can hardly suffice in the long run.

Cooperative Security: The Importance of Regional and Other Security Arrangements—Pointers for a New Administration

Nabil Fahmy¹

FOR THIS TOPIC, an invaluable and highly relevant point of departure lies at the heart of the UN Charter itself, specifically in the collective security system enshrined therein. As such it is essential to shed some light on the global collective security system, which embodies regional approaches to security as sanctioned by the UN Charter. To provide a conceptual context, however, it is necessary to begin with an overview of different schools of thought in nation-state security practices.

National Security Dress Codes

In generic terms, the form and function of the security arrangements that states undertake reflect their understanding of their individual national security situations. Both objective and subjective factors are involved; perceived threats are “real” in that they determine state behavior. Within a given regional or global distribution of power, a variety of security arrangements are possible, depending upon the security perceptions and resulting policies of key state actors.

Nation states have two basic options in preserving their national security. **In the first** they can enhance their military, political, and economic capabilities in order to counter, pre-empt, or deter any threats. In so doing the basic logic would be to “enhance capacity” or “**dress up**” in each of these areas, but a significant component of this process would relate to the acquisition of armaments and/or the entertainment of security alliances and or arrangements to enhance military capabilities. A relevant case in point is the U.S. and NATO alliance of European and North American states to, initially, counter the military power of the Soviet Union (Warsaw Pact) and to achieve the member states’ broader security interests in the North Atlantic area through a strong commitment to the principle that an armed attack against one or more member shall be considered an attack against them all, which could eventually prompt the collective use of armed force to restore and maintain security in the North Atlantic area.

The second option is to attempt to deal with the different threat perceptions through a series of “military, political, and economic arrangements” that reduce the threat or the threshold of conflict and confrontation by “**dress down**” in collaboration with the concerned parties. The gradual yet progressive steps pertaining to the establishment of a peaceful, prosperous Europe in the form of a “European Union” is one illustration of such an option. The establishment of nuclear-weapon-free zones (NWFZs), as has been the case in the South Pacific, Africa, Latin America, Southeast Asia, and Central Asia, could also be referred to as another example. The India/Pakistan composite dialogue and confidence-building measures in the wake of the 2002 standoff are other examples of “**dress down**,” most notably in their establishment of hotlines

1. Ambassador of the Arab Republic of Egypt to the United States of America (October 1999–September 2008). The views expressed in this paper are presented in the author’s personal capacity and do not necessarily represent those of the Egyptian government.

of communications between chiefs of military staff and early warning systems designed to prevent undue escalations of tension.

Needless to say, while these options reflect different approaches to security, they are not mutually exclusive, and there are cases where states chose to dress up and dress down at the same time. In fact more often than not, states pursue both options. Most states will preserve a military capacity to deal with substantive threats, even in cases of neutrality like Switzerland. The European political defense structure is a good example of both “dressing up” as part of NATO and “dressing down” as part of Europe. Nevertheless, the general security posture in most circumstances will allow for a determination to be made as to which carries more weight in determining the state’s security option.

Whichever option is chosen, and whatever degree of overlap exists in the application of security measures, the determining factor in founding the process for most states will be their own definition of “security” and their perception of “security threats.” Traditionally, with only a few exceptions (empires, superpowers, etc.), these tend to be primarily if not paramountly a function of the state’s geographic region; thus the emergence of regional security arrangements, although globalization and technology have proven the limits of regional security arrangements, cannot be effective stand-alone measures in the long term, although they remain of paramount importance.

In pursuit of these options, states have tended to embrace:

Unilateralism or self-dependence. The United States adopted such a posture prior to its entry into World War I but has since been unable to revert to unilateralist approaches, even when it did try (in 2003) despite being at the helm of a unipolar world.

Alliances to enhance tangible security. NATO is an evident example. The Gulf Cooperation Council (GCC)—Saudi Arabia, Kuwait, Bahrain, Qatar, United Arab Emirates, Oman—is another that immediately comes to mind. I must be careful to point out, however, that the establishment of a common security policy among the parties of the GCC was not considered in the council’s initial stage. In fact, the GCC initially sought to dispel the notion that it was created in response to the threats of security.² However, subsequent regional security challenges and the GCC’s ad hoc need to respond to that perception made external defense an important commonality in the GCC security cooperation.

International legal and disarmament norms and treaties. The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is a classic example of states agreeing to address their security concerns by such norms and treaties. In the case of the NPT, member states agreed to prohibit, globally, the respective transfer and acquisition of nuclear weapons or other nuclear explosive devices, to taking gradual steps toward eventual nuclear disarmament by nuclear weapon states (and to advance cooperation in peaceful nuclear energy). International disarmament and nonproliferation efforts are promoted and supported by agreed International Atomic Energy Agency and UN Security Council measures to preserve NPT norms and advance international peace and security.

Bilateral and regional security arms control and disarmament treaties. U.S.-Russian (Soviet) cooperation to bilaterally reduce armament and nuclear arsenals is one classic example, with numerous agreements negotiated, implemented, and even phased out by both sides (Strategic Arms Limitations Talks I and II, Strategic Arms Reduction Treaties I and II, Strategic Offensive Reductions Treaty, Intermediate-Range Nuclear Forces, etc.). I would note in this context the five existent NWFZ agreements in the South Pacific, Africa, Latin America, Southeast Asia, and Central Asia as another.

Here again, while most states will pursue all four of these paths, some with tangible and ideologically per-

2. Three sets of actions were agreed in pursuit of common goals—that is, a coordinated arms procurement policy, the development of a G.C.C. military industry, and improved facilities for military training.

ceived threats will lean toward unilateralism or alliances, while others—such as medium-sized states—will be more inclined toward a dependency on legal and disarmament treaties and norms or bilateral and regional disarmament treaties. Egypt, for example, is located in a region that has witnessed—particularly during modern history—its share of instability and ongoing security and nuclear concerns emanating from different regional parties. In response, Egypt could have chosen, many decades ago, the path of seeking nuclear capabilities in reaction, for example, to the nuclear ambiguity of its Israeli neighbor. But rather than engage in a nuclear arms race, the multi-angled Egyptian foreign policy strived to decrease the threat threshold by attempting to denuclearize the Middle East through universal adherence to the NPT and the establishment of a zone free of nuclear weapons in the Middle East. Egypt also diversified and strengthened its relations and partnerships with different regional and global powers, including the United States, EU, China, and Russia, not only to advance its immediate security interests, but to build and push forward a momentum aimed at creating a conducive environment of peace, stability, and security in the Middle East.

Cooperative Security at the Global Level

It is noteworthy that the UN Charter holds “regional arrangements” to play a major role in sustaining international peace and stability in the post–World War II world. In Chapter VI/Article 33 (1) and Chapter VIII, member states are, as a first resort, to attempt to settle disputes through regional agencies or arrangements before approaching the Security Council. In turn, regional agencies or arrangements are to keep the Security Council fully informed of their activities, or planned activities, and are called upon not to undertake enforcement actions without the authorization of the Security Council (see Chapter VIII/53/(1)).

The post-1945 period did see the establishment of a wide variety of regional organizations, albeit *grosso modo*; they did not operate in parallel with the United Nations as the drafters of the Charter had intended, as international relations were rigidly defined primarily by a small number of regional arrangements, namely the alliances that underpinned the Cold War. Their ideological confrontation and associated defense and security policies significantly inhibited the UN ability to fulfill its potential mandate, as defined by the Charter, on a number of dimensions. UN peacekeeping efforts, for instance, could only be applied to those conflicts in which the contending superpowers either had no interests or perceived overriding mutual interests to forestall the spread or escalation of regional wars.

Before the United Nations could celebrate its fiftieth anniversary, a number of global developments (the end of the Cold War, the unraveling of the Soviet Union, and early signs of globalization) had dramatic impact on both the UN and regional security arrangements. Much if not all of the rationale of these paramount security arrangements simply vanished, either resulting in their complete collapse (as with the Warsaw Pact), or necessitating a process of redressing in the emerging new world order (as with NATO). The latter struggled to redefine its strategic concept, undertook to engage all members of the former Soviet Union in security dialogue (in the Partnership for Peace), enlarged its regional footprint by admitting new members, and acting both unilaterally (as in Kosovo) and through the United Nations deployed its substantial military capabilities in peace enforcement operations.

The same period also saw a change in the nature of conflicts around the world. Internationalized civil wars such as in Afghanistan lost their momentum with the withdrawal of superpower involvement. Interstate tensions and overt conflicts dropped significantly. But, on the other hand, intrastate conflict increased dramatically. For the United Nations, the result was a renaissance of sorts in the early 1990s, as it was called upon by its members to assume a dramatically expanded role in international peace-related activities. It did so, not only by launching new peacekeeping missions, but also by authorizing and helping to organize coalitions of member states to utilize force to implement its resolutions. Accordingly, a major war was undertaken in 1990–91 against Iraq because of its aggression against Kuwait and another to oust the Taliban from Afghanistan and

Saddam Hussein from Iraq. As legitimate as these developments were, one of their unforeseen consequences was that the end of the twentieth century found the UN collective security system particularly in crisis rather than triumph, as its peacekeeping momentum was reversed and its asserted global role overridden by cooperative coalitions of the willing, if not regional coalitions.

The United Nations was formed to “save succeeding generations from the scourge of war”; however, the list of scourges has grown as threats to international peace and security are no longer confined to traditional violations of state sovereignty. Rather, genocide, massive violations of human rights, transnational organized crime, terrorism, and proliferation of weapons of mass destruction (WMD) increasingly represent immediate international security threats that are beyond the ability of any one state to solve. Examples in each case are obvious (former Yugoslavia, Rwanda, Burundi, Sudan, Afghanistan, North Korea, Iraq, Iran).

Cooperative Security at the Regional Level

As previously mentioned, collaborative security arrangements at the regional level come in numerous shapes and have differing scopes depending on how states define security. The Helsinki process and Organization for Security and Cooperation in Europe (OSCE) used broad definitions of security, given the particular concerns and approaches of its major parties. In most cases however, these arrangements have had a “military” focus with special emphasis on nuclear weapons or WMD. A classic example is clearly NATO’s nuclear deterrence doctrine, if not NATO’s nuclear-sharing policy that many believe runs in contravention to the spirit of NATO’s nuclear weapon state and non-nuclear weapon state obligations under the NPT, specifically Articles I and II.

OSCE had evolved from a diplomatic conference that helped to break down the barriers of mistrust between East and West into an international organization whose numerous institutions and field operations proved vital to stability in the post–Cold War era and remains to date the largest regional security organization in the world. It conducts a wide range of activities related to all three dimensions of security: human, politico-military, and economic-environmental. Established in the mid-1970s, the then Conference on Security and Cooperation in Europe, functioning as a security-dialogue organization to promote implementation of the Helsinki Accords, became the most important mechanism in overcoming the divisions of Europe that continued to flourish over the years and well into today’s world.

Increasingly, regional institutions have become the promulgators of the new norms of the post–Cold War order that brought forward a process of democratization and openness in economies. The Organization of American States for instance, has revitalized itself around the priorities of democratization and human rights.

By the same token, African states have persisted to reinvigorate and create viable regional security institutions, and there were hopeful signs of achievement of peaceful settlements as African states have resorted to the African Union (then the Organization of African Unity) to assume broader and more proactive roles in preventive diplomacy, conflict resolution, and peacekeeping. Of note is an interesting feature of developments in Africa: the security undertakings by subregionals such as the Economic Community of West African States, the Intergovernmental Authority on Development, and the Southern African Development Community of peacekeeping and peacemaking missions.

Regional security initiatives in the Middle East started with the Baghdad Pact of 1955 and ended more recently, in the aftermath of the 1991 Madrid Peace Conference. The Baghdad Pact was a Western-sponsored alliance mainly directed against the then Soviet Union and was later renamed Central Treaty Organization.

From a wider regional angle, the role of the League of Arab States (LAS) was essential as an overall Arab umbrella, politically rather than in a security sense. However its charter embodies a guarantee “to safeguard the independence and sovereignty of each member state,” and in the furtherance of this guarantee and for lack of specific collective security or mutual defense articles, LAS adopted in October 1949 “Principles of Collective

Security” against external aggression and a formal Joint Defense Pact in 1950. In application, two examples of resort stand out:

- In the 1961–63 Iraq-Kuwait crises that arose from growing Iraqi rhetoric in claiming Kuwaiti territory as part of Iraq, the Joint Defense Pact was invoked, and an Arab peacekeeping force (Egypt, Syria, Saudi Arabia, Tunisia, Sudan) was dispatched to Kuwait to seal its borders with Iraq.
- In 1976, another Arab peacekeeping force named the Arab Deterrent Force was dispatched to Lebanon to uphold the then Taif Accords for Lebanese political reconciliation.

LAS also encouraged subregional arrangements, and the GCC came into being in 1981 in an effort to shield the Gulf countries against Iran’s revolutionary zeal. In 1989 the Arab Cooperation Council (ACC)—Iraq, Jordan, Yemen, Egypt—and the Maghreb Union were formed, and both were generally perceived to fill in political subregional gaps in the wake of the establishment of the GCC. The ACC later completely collapsed as Iraqi intentions to annex Kuwait surfaced.

The Egyptian Initiative of 1990 for the establishment of a zone free from WMD, in the furtherance of its 1974 initiative to establish a NWFZ in the Middle East, was and remains to date of significant relevance in any regional security arrangement debate in the Middle East.

Another interesting attempt at regional security arrangements in the Middle East was the multilateral working group on Arms Control and Regional Security (ACRS) established at the Madrid Peace Conference. Co-chaired by the United States and Russia, ACRS discussed ways and means to realize regional security needs and establish a framework based on overall comprehensive security. Within the context of ACRS, states of the Middle East interacted in order to promote arms control and security in the region. This effort was novel in that it included non-Arab Middle Eastern states (Israel) and periphery states (Turkey), as well as global players. It however failed for the same reasons and had the same rancorous consequences.

Building on these experiences, if any regional security arrangement is to succeed, a number of issues need to be taken into account and seriously addressed as we draw on some important lessons learned from these subregional endeavors:

- No system was comprehensive in scope or substance.
- All lacked an independent military to deliver a viable regional security system.
- Each subsystem had a regional polarizing effect that proved inconducive to the rationale and essence of security.

In this context, I must re-emphasize that a “threshold of common interests” must be established if attempts to develop regional security arrangements are to have any chance of success, for ACRS has shown us that it is impossible to establish regional security arrangements unless the parties have the same—or at least not contradictory—assumptions as to how the shape of the region would evolve, as well as preferably which countries would actually be in the region. A comprehensive solution is clearly the way forward, and there is a need to reintroduce disarmament and arms control to the agenda of the U.S. policy, and to be effective, regional arms control must be perceived as an important element in U.S. national security interest.

Regional versus Global Security Measures

In light of the ever-changing global political and security paradigm, the UN High-Level Panel on Threats, Challenges and Change produced a report in 2005 that put forward a new vision of collective security—one that addresses all of the major threats to international peace and security driven by contentious dynamics at regional levels. The report suggested that collective security today should rest on three pillars; **the first** is the

continued need for collective responses at the global, regional, and national levels; **the second** is the acceptance that certain threats pose serious national security concerns to all states; and **the third** is the realization that some states cannot protect their own people and will harm their neighbors.

Questions, however, continue to be posed and arguments presented about the veracity of regional security measures *per se*, and whether it is preferable to pursue such measures at the expense of more comprehensive global measures. I do not believe that it is an either-or proposition.

First, the very definition of a “region” depends on the scope of interest of the nation state or states. It may be small or large and may cover one or more continents.

Secondly, comprehensive measures applying one standard for all equally and in equanimity are of course preferable in principle. However, they may be more difficult to achieve in all circumstances, on all issues, and at all times. Consequently, measures covering a more limited geographical scope may be a more achievable solution for the advancement of comprehensive measures.

Thirdly, the priorities may differ from one region to another for a number of reasons that affect security perceptions for historical conflict to topography; consequently, a general determination of what fits best may not be practical.

Fourthly, one can reasonably argue that some weapon systems such as nuclear weapons or WMD cannot effectively be dealt with regionally in the long term, especially if compared with conventional weapons. However, one can also argue that conventional weapons are the backbone of any security system and cannot be prohibited regionally. In fact, it is probably true that nuclear weapons proliferation is more easily dealt with in the context of regional security arrangements than on conventional weapons, as a preliminary nonproliferation step because these measures essentially put a cap on possible further exacerbation of the proliferation problems without dealing with the core of the security backbone of states of the region. At the same time, it is equally true that all NWFZs in the world covering states that do not have the potential or interest are really of limited and definitely diminishing importance if a nuclear arms race continues.

My conclusion therefore, once again, is that this is not an either-or proposition.

The Way Forward

There is no doubt that regional security arrangements should be shaped in accordance with the specific circumstances of each region. However, their effectiveness and sustainability over time rely not only on the consent and participation of regional actors, but equally important, on a favorable environment of international support. As such, their viability depends very much on the prevailing geostrategic balance at the global level as well as on collective and regional security—rather than unilateralism—embraced by the international community.

In this context the United States, as the dominant global power, has a responsibility to lead. Constructive regional security efforts cannot last or be effective while a clear global vision to approaches of security is still lacking. At the same time, a need persists to encourage comprehensive and sustained regional security arrangements, and ultimately these arrangements need to be respected by extra-regional states and the international community as a whole, by:

Providing an auspicious global environment for the revival of the global arms control and disarmament agenda. Invigorating the nuclear disarmament negotiations between the United States and Russia, as well as with the other permanent members of the Security Council who are nuclear weapon states, is of paramount importance. A joint commitment by them to pursue negotiations toward a nuclear-weapon-free world as has recently been suggested would provide strong impetus for nuclear disarmament. Codifying such an objective

as part of a Security Council resolution would represent a strong message to the international community.

Working toward the successful conclusion of the 2010 NPT Review Conference. Efforts must be geared toward a substantively successful NPT Review Conference on its three pillars in their entirety; namely non-proliferation, disarmament, and the peaceful uses of nuclear energy. NPT universality is crucial, and anything less would lead to the erosion of a cardinal principle considered as the cornerstone of global nonproliferation regime.

Adopting internationally legally binding instruments on comprehensive security assurances (positive and negative) that encompass and surpass previous piecemeal attempts that have characterized approaches thus far (Security Council Resolution 255 of 1968, Resolution 984 of 1995, and the various nuclear weapon state unilateral declarations basically reflecting elements of positive security assurances and shy negative security ones). These past attempts were designed to facilitate the adoption of NPT itself in 1968, then the indefinite extension of NPT in 1995. The arguments that declarations made by nuclear weapon states are sufficient, or that these assurances should only be granted in the context of NWFZs, do not serve the notion or purpose of security arrangements at both international and regional levels. These instruments should include well-defined statements of the security assurances that are the subject of the instrument (positive and negative), as well as the identification of both the states providing the security assurances and the beneficiaries.

*Proactively encouraging and supporting the establishment of nuclear-weapon-free zones, especially in regions of tension such as the Middle East, and continuing the process of adhering to all relevant protocols of the already established zones.*³ NWFZs have made and continue to make important contributions to strengthen the international nuclear nonproliferation regime and to support global efforts aimed at achieving the total elimination of nuclear weapons, as well as enhancing regional security through lower levels of armaments. In this context, negative security assurances constitute one of the main pillars of NWFZ treaties. By signing and ratifying the relevant protocols to these treaties, nuclear weapon states in turn undertake legally binding commitments to respect the status of these zones and not to use or threaten to use nuclear weapons against states parties to such treaties.

And in the Middle East, by seriously addressing the security concerns of the Arab countries, Israel, and Iran in a comprehensive fashion if further nuclear weapon proliferation in the Middle East is to be preempted. This would entail intensifying efforts toward securing a global and regional commitment to deal with security with one standard and as an indivisible whole when addressing the regional states' threat perceptions. I continue to argue that the way ahead in this regard needs bold decisions that would include convening a regional security conference—with the participation of key world powers—to discuss regional security concerns and map out a two-track roadmap drawing on the experience and lessons learned from ACRS: one for WMD proliferation and another for other security concerns. The objectives of the suggested process would

3. Negative security assurances have been granted by nuclear weapon states to all the states in the NWFZs of Latin America and the Caribbean (Treaty of Tlatelolco) and the South Pacific (Treaty of Rarotonga). Protocols containing security assurances by nuclear weapon states are also part of NWFZs in Southeast Asia (Treaty of Bangkok) and in Africa (Pelindaba Treaty). The protocol to the Bangkok Treaty calls on nuclear weapon states not to use or threaten to use nuclear weapons against any party to the treaty or to use nuclear weapons within the zone (includes large areas of international waters), though no nuclear weapon state has yet signed the protocol. Nuclear weapon states are mainly concerned over the possible passage of nuclear-armed naval vessels through international waters covered by the zone. Although all five nuclear powers signed the security assurance protocol (Protocol I) to the Pelindaba Treaty, only China, France, and the United Kingdom have ratified it, thereby committing not to use or threaten to use a nuclear device against any party to the treaty or any territory within the zone for which a state party is internationally responsible. Russia has not ratified Protocol I in light of its concerns over the status of the Indian Ocean island archipelago of Diego Garcia (controlled by the United Kingdom and believed to be used as a base for U.S. nuclear weapons), while the United States argued that it maintains the right to use nuclear weapons in the case of the use of chemical weapons by an African state. The Central Asian NWFZ Treaty also requires nuclear weapon states to commit not to use or threaten to use nuclear weapons against the five Central Asian parties to the treaty.

be to increase security for the regional nations while maintaining lower quantities of armaments, the qualitative and quantitative balance between the military capabilities of the all states in the region, the conclusion of agreements on arms reduction and disarmament applied to all regional states, and the achievement of a large degree of military transparency in all weapons systems. It is noteworthy that Security Council Resolution 687 on Iraq, adopted under Chapter VII of the UN Charter, stipulates in its fourteenth paragraph that the actions implemented in Iraq represent steps toward the goal of establishing in the Middle East a zone free from weapons of mass destruction. Equally noteworthy is that the "Resolution on the Middle East" adopted at the 1995 NPT Review and Extension Conference was not only a regional resolution but was actually sponsored by the United Kingdom, United States, and Russia and became part and parcel of the whole extension package, as well as an integral component in the mandate of the whole NPT review process. The absence of any serious attempt to implement these expressions of intent raises questions about the credibility of the international community in dealing with proliferation concerns.

The NPT Strengthened Review Process: Avoiding a Perfect Storm Fifteen Years Later

Jean du Preez¹

FORTY YEARS AFTER the signing of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), cracks are opening in the cornerstone of the nuclear nonproliferation regime. The grand bargain among nuclear and non-nuclear weapon states has in recent years been hamstrung by deep divisions among its members over past and future implementation of all its provisions. These divisions have exposed the treaty's weaknesses, including its weak and lopsided enforcement mechanism, opportunities to abuse the inalienable right to nuclear energy for peaceful purposes, and its lack of universality.

Since the milestone 2000 NPT Review Conference, the achievement of the treaty's objectives and those agreed to at previous Review Conferences have been impeded by a number of political, economic, and regional security obstacles, some of which are internal to the NPT, while others largely relate to external threats. Both sets of factors are aggravated by the reluctance of many capitals to recognize the severity of the crisis in which the NPT finds itself, which was most clearly apparent in the failure of the 2005 Review Conference to agree on any substantive recommendations, or to exhibit the flexibility that enabled important agreements to be reached in 1995 and 2000.

Thus, convergence between the lack of political determination among its parties to bridge deep differences, negative tactics employed by some to emphasize or ignore certain aspects of the treaty while ignoring others, and a review process that allows delegations to simply talk to each other instead of negotiating agreeable solutions, provided the "perfect storm" in which the 2005 Review Conference was doomed to sink.

Regrettably, another storm is brewing, which potentially could be more damaging to the treaty's validity if business continues to be conducted as usual. The indicators of another looming disaster are already appearing on the horizon. The question, however, is will the state parties respond effectively and in a timely fashion to avoid it.

While some positive developments during the next eighteen months may have a positive impact in the longer term, preparations for the 2010 Review Conference have so far not yielded much hope for a successful outcome. Judging by their performances at the 2007 and 2008 Preparatory Committee (PrepCom) meetings, the state parties are again steering the 2010 Review Conference to a similar dark and stormy fate as the 2005 conference. Many already fear that yet another "failed" Review Conference will erode confidence in the treaty's validity, leading some to conclude that states will break out of the regime and potentially acquire nuclear weapons. The state parties thus have a daunting responsibility to ensure that the 2010 Review Conference successfully discharges its mandate.

As if the challenges on how to bridge the deep divisions among states are not difficult enough, the state parties are faced with an equally complicated conundrum: how to promote success in 2010 within the limited

1. This paper is based on a previously published article: Jean du Preez, "Avoiding a Perfect Storm: Recharting the NPT Review Process," *Arms Control Today* (October 2008).

boundaries of the so-called strengthened review process. At the 1995 Review and Extension Conference, the state parties decided² to institutionalize and strengthen the treaty's built in review process³ by mandating the annual PrepCom meetings to consider substantive issues related to the implementation of the treaty, agree on the procedural preparations for the Review Conference, and make recommendations to the conference toward this end.

The Relationship between Process, Substance, and Political Determination

The history and practice of international negotiations have proven that the process and environment in which negotiations occur are of critical importance for successfully negotiated outcomes. Equally important is the way in which decisions on a negotiated outcome are taken and how outcomes are defined. In the context of the NPT, the approach to both process and decision making has been a rather inconsistent. Moreover, the success of the treaty is increasingly measured by the ability or inability of its parties to reach agreement on carefully crafted diplomatic prose, which often does not reflect reality. This is evident in the fact that of the seven Review Conferences held so far, only three (1975, 1985, and 2000) were able to reach agreement on a final declaration. It should, however, be recognized that of these three, only the 2000 Review Conference produced a fully negotiated, comprehensive consensus final document. At the first Review Conference in 1975, when the treaty only had 91 state parties (as opposed to 188 today), a short final declaration was agreed by consensus, partly as a consequence of the "iron fist" leadership style of the Swedish conference president, Inga Thorsson. The 1985 Review Conference, under the presidency of Mohamed Shaker of Egypt, effectively used a system of informal consultations to formulate a final declaration that was agreed by consensus, even though differences on key issues were apparent within it.⁴

While the 1995 Review and Extension Conference can be considered as a threshold in the treaty's history, it failed to reach agreement on how the treaty was implemented during the preceding review period. However, the legacy of the 1995 conference is that it produced a new grand bargain—a strengthened review process linked to a set of "political conditions"—in which the indefinite extension of the treaty was considered possible.

The 1995 Strengthened Review Process (Decision 1)—a central element of the package that allowed for the indefinite extension of the treaty—made the PrepCom an integral part of the review process. The annual PrepCom sessions were designed to function in "negotiation mode" as "mini" Review Conferences with the aim of checking on progress toward the full implementation of the treaty. The drafters of this process intended for the PrepCom to work on the basis of a "rolling text" developed by its previous session(s). The strengthened review process decision thus created a yardstick to measure progress on nuclear nonproliferation and disarmament during the five-year review cycles.

In addition to the strengthened review process, the 1995 "Principles and Objectives for Nuclear Non-Proliferation and Nuclear Disarmament" (Decision 2) provided for the first time a set of benchmarks to gauge the implementation of the treaty and established a forward-looking agenda, including a clearly defined program of action on nuclear disarmament. Together these two decisions provided many states, particularly those from the Non-Aligned Movement (NAM), with the means to support Decision 3—the treaty's indefinite extension. Since the indefinite extension eliminated the limited leverage built into Article X(2)⁵ of the treaty, Decisions

2. Decision 1: "Strengthening of the Review Process for the Treaty," adopted at the 1995 NPT Review and Extension Conference.

3. Article VIII.3 of the NPT mandated, "Five years after the entry into force of this Treaty, a conference of parties to the Treaty shall be held ... in order to review the implementation of this Treaty." In the years through 1995, it became accepted as standard practice that Review Conferences would be held every five years, although the treaty text specified that this was optional.

4. Mountbatten Centre for International Studies/Center for Nonproliferation Studies, *NPT Briefing Book*, 2008 edition, p. 18.

5. Article X(2) determines that twenty-five years after the entry into force of the treaty, "a conference shall be convened to decide

1 and 2 were designed and continue to be widely regarded as ways to maintain some pressure on the nuclear weapon states (NWS) to stick to their part of the NPT grand bargain.

The fully negotiated Final Declaration adopted at the 2000 Review Conference was only possible as a result of strong political determination from nuclear weapon and non-nuclear weapon states alike. The role of the United States and the New Agenda Coalition (NAC) in bridging deep gaps between the nuclear and non-nuclear states played a particularly important role in this regard. Despite positive signals that an agreement between the NWS and the NAC would yield a successful conference outcome, the president of the 2000 Review Conference introduced a new “improved” strengthened review process based on the conviction that the process agreed upon in 1995 failed, given its proneness to be derailed as a result of disagreement over specific issues. In this regard it should be recalled that the failure of the review process leading up to the 2000 Review Conference was not necessarily the result of a weak review process, but rather a combination of political events, including a breakdown in Middle East peace talks that led to the collapse of the 1998 PrepCom, and deep divisions among NWS and non-nuclear weapon states (NNWS) over nuclear disarmament. It is unfortunate that the 1995 process was not given at least one more review cycle to prove its utility.

The “improved” strengthened review process introduced a significant shift in how business is conducted in preparing for future review conferences. The first two PrepCom sessions no longer operate in “negotiation mode” but only “consider principles, objectives and ways in order to promote the full implementation of the treaty, as well as its universality.”⁶ It was also determined that each PrepCom session should summarize its results and forward this summary to the next session for further discussion. No clear guidance was provided on how and by whom the summaries should be prepared. The “improved” process furthermore requires that only the third PrepCom session should be held in negotiating mode and make consensus recommendations to the Review Conference.

While true that PrepCom sessions cannot be considered as mini-review conferences (as originally envisaged in 1995), and that state parties struggled to make substantive recommendations through the 1997, 1998, and 1999 PrepCom sessions, it is equally questionable whether the “improved” strengthened process is having the desired outcome and effect that was envisaged by its drafters. In this regard it should be recalled that the original (1995) strengthened review process provided the framework in which groups such as the NAC used the full duration of the process to increase pressure on the NWS. Although it did not provide for immediate delivery, it provided the fertile ground on which the NAC could work to build its agenda from one PrepCom session to the next, culminating in the success at the 2000 Review Conference. Since fruitful negotiations were not considered possible at the Review Conferences due to time constraints and the level of acrimonious exchanges, the preparatory process designed in 1995 provided a mechanism that allowed for negotiations to take place during the PrepCom sessions. By the time the 2000 Review Conference started, the NWS (especially the United States) were aware that the NAC represented a serious negotiating partner and came to the table ready to make a deal. The NAC on the other hand also had the time to feel out the boundaries of what could be possible, and build alliances among NAM and Western state parties alike. As such, the 1995 process contributed to the success at the 2000 Review Conference despite being put to the test amid significant political obstacles.

Why Did the 2005 Review Conference Sink?

It is not the intent of this paper to dwell on the reasons why the 2005 Review Conference failed, but suffice it to say that the conference was a victim of the wide gap in state priorities on how to deal with the many serious

whether the Treaty shall continue in force indefinitely, or shall be extended for an additional fixed period or periods. This decision shall be taken by a majority of the Parties to the Treaty.” This provision provided the state parties with the potential to terminate the treaty if they felt that it no longer served their national or collective interests.

6. Decision on the “Improved Strengthened Review Process” taken at the 2000 NPT Review Conference.

threats facing the treaty in a twenty-first-century security environment. It should also be recognized that the conference was set up to fail following the deadlock that emerged at the 2004 PrepCom over the conference agenda and disagreements over the chairman's summary. It also proved that the changes made in 2000 to further refine the strengthened review process favored those who lacked political commitment, used negative tactics, and negotiated in bad faith. While this shift was not apparent at the time, the events during the 2002–2005 review cycle showed that this “improved” process may have been a mistake.

Although the 2002 and 2003 PrepCom sessions were able to deliver smooth outcomes (in light of their mandate not to negotiate, but only to discuss issues), the 2004 session was expected to deliver results or products, which were distinctly different. In all fairness to the efforts by the 2004 PrepCom chairman, Sudjadnan Parnohadiningrat of Indonesia, and the president of the Review Conference, Sergio Duarte of Brazil—both often blamed for the failures of these meetings—the failures of both the PrepCom and the Review Conference are in most part due to the action (or inaction) of the state parties and a weak process. The failure was also a consequence of divisions within the NAC and the resultant lack of leadership, especially for the NAM state parties. In fact, the NAC's success in 2000 had the unintended effect of diminishing the role of the NAM. And while the NAC was looked at for leadership in 2005, it could not meet these expectations in a post-2000 environment due to individual country ambitions and political constraints within the coalition.

What has to be acknowledged, however, is that the review process itself contributed to the conference's downfall. Without clear guidance on how and by whom each PrepCom's factual summary should be prepared, the chairs of the 2002 and 2003 PrepCom sessions interpreted this to mean that “chairmen summaries” should be issued on their own responsibility. This inevitably led to unnecessary debate over what should, or should not, be included in a factual summary. Further complicating the process is the requirement that recommendations to the Review Conference should only be considered during the third and likely final PrepCom session. In practice this meant that the 2004 PrepCom had to identify and reach agreement on substantive recommendations to the Review Conference, as well as take on procedural issues for the conference, including its agenda. This proved to be a tall order, given the political environment in which the meeting was held, and that it had fewer than ten days to do so.

Unfortunately, the deeply divided 2005 conference made any further changes to the strengthened review process impossible. Although the Dutch delegation consulted widely in an attempt to further improve the strengthened review process by realigning it with the original intent of the 1995 decision, there was no willingness on the part of the conference president or the state parties to secure a separate agreement on the review process or any other stand-alone issue, as was the case in 1995.

Is Another “Perfect Storm” Brewing?

Some diplomats and analysts want to believe that while the review cycle for the 2010 conference got off to a bumpy start, it is back on track, and that prospects are not as gloomy as they seem. An honest reflection of what transpired at the 2007 and 2008 PrepCom sessions and the prospects for 2009, however, shows a different picture.

After more than a week's bickering over the agenda, the 2007 PrepCom session almost did not adopt a report, given the negative tactics by at least one state party. While the chairman's summary contained a rich menu of items raised during the very limited debate during the session, its importance was reduced to that of a national working paper in order to reach a compromise on the fate of the procedural PrepCom report.

Although the 2008 session was not crippled by senseless arguments over the agenda, the substantive debate reminded one of a staged “beauty pageant” in which delegations rolled out carefully crafted statements on well-known positions. Limited substantive exchanges occurred between delegations, and no attempts were made to narrow down differences. Yet the PrepCom will be remembered for some positive developments.

While the 2008 chairman's summary suffered the same fate as that of the 2007 PrepCom chair, Ambassador Volodymyr Yelchenko's efforts to capture the discussions in a comprehensive and balanced manner were widely recognized. But since his summary (turned working paper) has been buried among the numerous national working papers and reports submitted to the PrepCom so far, it is unlikely to form the basis of the 2009 PrepCom's work. Although the Permanent Five (P-5) managed to issue a joint statement—the first such statement since the 2000 Review Conference—shortly before the end of the session, it was “as significant for what it didn't say as for what the five NWS did manage to agree on.”⁷ A potentially very important, and perhaps least-recognized development at the 2008 PrepCom, was the chairman's ability to push through five significant stand-alone decisions related to the chairmanship and venue of the 2009 session, the presidency and venue of the 2010 Review Conference, and important budgetary issues. And although the 2008 session meeting was held in a far more collegial atmosphere than the 2007 meeting, deep differences over Iran's nuclear ambitions, concerns over Syrian intentions, and efforts to further limit access to nuclear energy, including the civilian fuel cycle, could steer the 2009 PrepCom and the 2010 Review Conference into yet another disaster.

Next year, the review cycle will be at the same stage as the 2004 PrepCom session. The cracks in the “improved” review process are again showing. Compared to 2004, the 2009 PrepCom will not have the luxury of having factual summaries attached to the official reports on its previous sessions. Instead the summaries of the 2007 and 2008 chairmen have been diminished to PrepCom working papers, on par with those submitted by national delegations. The 2009 PrepCom will therefore have little substantive material to work with and, given the political climate, is likely to face the same fate as the 2004 PrepCom session. And as in 2004, delegations and analysts are likely to again put the blame on the abilities of the PrepCom chair for not leading them toward a successful outcome. Both the origin of the designated chair for 2009 (Zimbabwe) and the fact that Boniface Chidyausiku has very little NPT experience are likely to yet again provide easy scapegoats. Instead, the state parties should reflect on their own inabilities to reach out and resolve deep differences and find ways to fix the review process.

Political will and determination by all state parties will be crucial for success in 2010. It would be equally important to identify and agree on achievable and balanced ways to regain confidence in the treaty's core bargains and its overall validity in today's security environment. Of further importance would be to devise improved decision-making and review mechanisms. Moreover, it should be recognized that the success of Review Conferences should not be dependent on the ability of the state parties to adopt by consensus a final document on how the treaty has been implemented during past review cycles. Instead of reaching agreement over carefully crafted but often-meaningless diplomatic wording in a final declaration, a successful Review Conference should be measured against the ability of the state parties to cooperate in pursuit of common objectives to strengthen the future implementation of the treaty. In this regard important lessons can be drawn from the 1995, 2000, and 2005 conferences.

Reconstructing the Strengthened Review Process

Measured against the original intent of the strengthened review process—a yardstick to measure progress on nuclear nonproliferation and disarmament during the five-year review cycle—neither the 1995 decision nor the “improved” 2000 strengthened review process met expectations. But while the 1995 strengthened review process (Decision 1) mandated the Review Conference to, *inter alia*, identify the “means” through which further progress should be sought in the future and “what” might be done to strengthen the implementation of the treaty,⁸ this element is not apparent in the “improved” strengthened review process. Instead, each PrepCom

7. For a detailed overview of the PrepCom outcome and the P-5 statement, see Rebecca Johnson, “2008 NPT PrepCom Adopts Report But Not Chair's Factual And Balanced Summary,” Acronym Institute, May 9, 2008.

8. See Decision 1.

covered the same ground, resulting in deadlock over the same controversial issues without being able to take concrete action to address them. The strengthened review process should thus be realigned based on some of the original ideas put forward in 1995 and be provided with the “means” to undertake substantive consideration of the “what.”

Just as the 1995 and 2000 Review Conferences set forth sets of benchmarks to gauge the implementation of the treaty (e.g., the 1995 Principles and Objectives for Nuclear Non-Proliferation and Nuclear Disarmament) and established forward-looking agendas (e.g., the 2000 “Thirteen Practical Steps” toward nuclear disarmament), each Review Conference should designate specific topics for consideration at succeeding PrepCom sessions. These topics should be anchored to a set of forward-looking “Nuclear Non-Proliferation and Nuclear Disarmament Objectives” (see below) and should allow for the inclusion of urgent issues if so desired by the state parties. Annual PrepCom meetings of two weeks each should be held to promote common understandings and effective action on specific issues designated by the preceding Review Conference. Each PrepCom session should be preceded by a weeklong meeting on the “expert level” with the purpose of considering specific issues and concerns related to the topic designated to the annual PrepCom. This meeting could be chaired by the chairperson of the previous PrepCom session using the experience and lessons that he or she had learned the year before. Factual reports consisting of a compilation of issues discussed at the expert-level meetings will be forwarded to the annual PrepCom session. Sufficient time should be allowed between the expert-level meeting and the annual PrepCom so as to enable delegations to properly consider issues raised at the expert level and to prepare for substantive consideration of these issues at the annual PrepCom. The final PrepCom meeting should take procedural decisions related to the Review Conference. The Review Conference will consider the work of the expert meetings and the PrepCom and decide on any further action.

Streamline Decision Making

Since Review Conferences are tasked to review the implementation of the treaty over the preceding five years and to take decisions on ways to strengthen the treaty, the strengthened review process should facilitate, and not preemptively force, agreements on the most critical issues. Moreover, since the need for consensus decisions at Review Conferences is not anchored anywhere in the treaty, the practice of seeking consensus agreement on all issues should be reconsidered. The lack of agreement over one issue has led to the downfall (or near downfall) of past Review Conferences. For instance, despite having reached a milestone agreement on nuclear disarmament (the Thirteen Practical Steps), the 2000 Review Conference almost collapsed during its final days given U.S. determination to single out Iraq for being in noncompliance. Ironically, similar tactics (which were focused on Iran) contributed to the failure of the 2005 Review Conference and hijacked the chairman’s reports of the 2007 and 2008 PrepCom sessions. Other Review Conferences, including 1995 and 1990, also failed given disagreements between NWS and NNWS over nuclear disarmament.

To avoid yet another divisive debate over past implementation of the treaty’s obligations, the Review Conference (starting with the 2010 conference) should avoid seeking consensus agreement on the “review” part of its outcome. While important to consider in depth the implementation of all the treaty’s obligations and address concerns over noncompliance, it is highly unlikely for any state—NWS or NNWS—to incriminate itself by agreeing to negative language about its treaty obligations. Instead of a consensus “review” documents, the conference could issue a separate document—drafted in the style of the 1985 Final Document—reflecting in a balanced manner the discussions and concerns about the status of the treaty’s implementation. However, given the current political environment, opposition to this approach is likely to come from both sides, each worried that documents that put them under pressure are agreed upon, while documents that put others under pressure are not, or receive a watered down (he-said, she-said) approach. Whatever the approach, it would be important to separate the “review” part of future Review Conference outcomes from more forward-looking parts.

Nuclear Nonproliferation and Nuclear Disarmament Objectives

Building on, and in no way diminishing the significance or continued applicability of the 1995 Principles and Objectives document (Decision 2) and the 2000 Final Document (including the Thirteen Steps for nuclear disarmament), a set of additional objectives should be developed around a balanced plan of action for consideration and adoption at the 2010 Review Conference. As opposed to seeking consensus (in what is likely to be a highly divisive atmosphere) on how to reflect the treaty's past implementation, the 2010 Review Conference should pursue agreement on a set of "Nuclear Nonproliferation and Nuclear Disarmament Objectives" that recognizes the outcomes of both the 1995 and 2000 Review Conferences and takes into account the changes in the geopolitical and international security environment. Such a set of updated objectives could serve as a "lode-star" to regain confidence in the treaty's core bargains, as the 1995 Principles and Objectives were designed to do. These objectives should not diminish the 1995 Principle and Objectives or the forward-looking elements in the 2000 Final Document, but should instead prioritize in a balanced manner ways to deal with the most pressing challenges facing the treaty today. As such these objectives could include the following elements:

1. *Universal application of nonproliferation and disarmament principles*, including ways to engage the outlier states without rewarding them for behavior contrary to the NPT norm.
2. *Means to strengthen disincentives against NPT breakouts*.
3. *Methods for strengthening existing nonproliferation obligations*, including strengthening comprehensive safeguards (applied with the Additional Protocol); application of such safeguards as a condition of supply; and suspending nuclear cooperation with states found by the International Atomic Energy Agency Board of Governors to be in noncompliance with their safeguard agreements until such violations have been redressed.
4. *Renewed commitment to the peaceful use of nuclear energy* in which states developing advanced capabilities are obligated to also accept a responsibility to take additional measures to assure the international community of their bona fides, and in which particular importance is attached to development of multinational fuel cycle facilities and assurances of nuclear fuel supply.
5. *Practical and achievable nuclear disarmament goals*, including a renewed commitment by all states (including NNWS that have not yet done so) to ratify and fully support the Comprehensive Nuclear-Test-Ban Treaty; starting (or supporting) negotiations on a verifiable fissile material ban treaty that take into account both nuclear nonproliferation and nuclear disarmament objectives; an agreement among NWS to take their operational arsenals off "hair-trigger alert"; a commitment by NWS not to research, develop, or deploy types of nuclear warheads fundamentally different from those present in their possession; withdrawal of U.S. tactical weapons from NATO NNWS; and agreement among both the United States and Russia to withdraw all these types of nuclear weapons to central storage on national territory for eventual elimination.
6. *Means to counter nuclear terrorism*, including the full implementation of UN Security Council Resolution 1540; ratification of the amendment to the Convention on the Physical Protection of Nuclear Material; and minimization of use of highly enriched uranium in the civilian nuclear sector.
7. *Regional nonproliferation and disarmament approaches*, including means to implement fully the 1995 Resolution on the Middle East; means to bring into force all existing nuclear-weapon-free zone treaties with the full support of the NWS; and the establishment of additional verification measures as confidence-building tools in regions of proliferation concern.
8. *Security assurances*, including through an unequivocal commitment (preferably in the context

of the Security Council) by all states with nuclear weapons to no-first-use policies, as well as the establishment of new mechanisms designed to promote legally binding negative security assurances to NPT state parties in full compliance with their nonproliferation obligations.

9. *Accountability of all state parties* to their treaty obligations by means of a robust reporting system.

10. *Greater reliance on education, training, and engagement of civil society* in the process of strengthening the NPT norm.

Finally, the pursuit of a new deal would not be possible without strong and unambiguous determination by state parties. While some would argue that a new deal, such as the one described in this paper, is beyond the realm of the possible or desirable, the state parties no longer have the luxury to continue doing business as usual. The warning alarms of another perfect storm have already sounded. It is time for the state parties and those who play a leading role in the treaty's review process to wake up, take a firm grip on the helm, and steer the NPT toward calmer seas. The state parties should urgently replace their business-as-usual approach, which is based on methods that have been proven to have failed, with a new, balanced, and forward-looking deal. But whatever the approach in pursuit of such a new deal, it would be of critical importance for all states not to approach individual elements singularly. Any desire to address only one aspect, albeit nuclear nonproliferation, nuclear disarmament, or peaceful uses of nuclear energy, is a recipe for another perfect storm and should be avoided at all cost.

Strengthening the NPT, 2010 and Beyond: Restoring Trust and Cooperation—What Will It Take?

John Simpson

THIS PAPER IS in four parts. The first seeks to identify the types of trust that exist between individuals and organizations and how this phenomenon relates to cooperation. The second discusses how issues of trust and cooperation relate to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the nuclear nonproliferation regime. The third part addresses the role of the United States in relation to these issues of trust and cooperation. Finally, by way of summary, areas to focus upon in enhancing trust and cooperation are listed, together with proposals for action within them and suggestions for priorities.

Part I: Types of Trust and Their Implication for Cooperation

Trust and cooperation are human interpersonal qualities. At the same time, these terms are used to describe relationships between organizations, including nation states. There exists a large academic literature on these concepts,¹ which suggests that there are at least four different types of trust:

- *Systemic trust*, where there is confidence in the “correct” functioning of a legal agreement (e.g., a treaty) and the institutional structures within which it operates (e.g., international law);
- *Calculative trust* builds up gradually over time as expectations of an actor adhering to legal or other agreements grow. This also facilitates the acceptance of risk, vulnerability, and dependency;
- *Affective trust* describes the situation where the standard operating procedure is that all members of a group will collaborate to solve problems rather than act independently; and
- *Competency-based trust*, where reputations for competency or delivery on commitments arising from previous behavior lead to expectations of positive outcomes from an interaction or negotiation.

If this typology is applied to the NPT and its review process, it becomes apparent that current problems concerning trust and cooperation may arise from a number of different sources:

1. Lack of *systemic trust* in the treaty and its review processes stemming from a number of widely different sources:

- allegations of noncompliance by non-nuclear weapon states with Articles II and III of the treaty;
- allegations of noncompliance by nuclear weapon states with Articles I and IV of the treaty;
- allegations of noncompliance by supplier states with Article IV of the treaty;

1. I am indebted to my colleague Keith Baker, who brought to my notice the conceptual work on these issues that has taken place in the public administration area.

- disagreements over non-fulfillment/rejection of the Thirteen Practical Steps contained in the 2000 Final Document and the status of commitments contained in such Final Documents;
- lack of any implementation arrangements within the text of the treaty, leading to differing views on the legitimacy of external implementation arrangements such as the Nuclear Suppliers Group (NSG) and Proliferation Security Initiative (PSI); and
- lack of a clear role for the UN Security Council in relation to the treaty, especially in relation to its Article X.2 and Article III.1-3.

2. Erosion of *calculative trust* arising from prior behavior. This focuses around the NPT review process, and in particular the status and value of chairman's factual summaries from Preparatory Committee (Prep-Com) meetings; the traditional attempt to produce a Final Document agreed by consensus; and the legal and political status of commitments entered into collectively through a Final Document.

3. Lack of *affective trust* arising from unwillingness to cooperate on mutual problems. This appears to arise both from the erosion of *calculative trust* and the inability of the states parties to agree on priorities in relation to the three main areas covered by the NPT (nonproliferation, peaceful uses, and disarmament), as well as within those areas. This in turn generates an unwillingness to cooperate on problem-solving strategies and their implementation. Although the existence of cooperation is often seen as an indicator of trust—a dependent variable upon it—trust may have to exist before cooperation is possible. Alternatively, a problem may need to be very grave before a state will accept the vulnerabilities that may exist in parallel with trusting the actions of other actors (e.g., in many regions, nuclear weapons use is now a very remote threat to national well-being and survival).

4. Erosion of *competency-based trust* (i.e., the perception that states are competent and willing to play specific roles within an organization and regime). This appears to arise from two sources. One is the perceived attempt by France and the United States in 2004 and 2005 to degrade, if not eliminate, the status and authority of the commitments on the “Thirteen Practical Steps” and on the Middle East agreed in 2000 and the Middle East resolution of 1995. A second is the “institutional deficit” generated by the lack of permanent NPT institutions, such as a secretariat or executive committee, and thus the lack of any body within the treaty competent to oversee and organize its implementation.

Actions in all of these areas appear necessary if trust and cooperation in the NPT context is to be restored. A key question, however, is which actions are essential and which are merely desirable.

Part II: The NPT, the NPT Review Process, and the Nuclear Nonproliferation Regime— What Is Implied by Restoring Trust and Competence?

The NPT and Its Review Process

The NPT is a treaty, but unlike the Chemical Weapons Convention, it lacks any integral arrangements for monitoring and addressing its implementation. It creates the norms and rules upon which the nuclear nonproliferation regime is based, but not specific mechanisms for their implementation, with the exception of the International Atomic Energy Agency (IAEA) in relation to Article III. This will always be the case, as the text of the NPT is in practice non-amendable, given that the conditions for amendments to enter into force (Articles VIII.1 and 2) are probably not attainable.

The NPT review process, while apparently unconstrained in its scope, has in practice been confined to three sets of activities:

- interpreting language in the treaty that is opaque or whose accepted implementation may need changing in response to changed circumstances (e.g., interpreting the meaning of “the safe guards required by this Article” in Article III.2; the criteria for measuring compliance with

Article VI contained in the 2000 NPT Final Document—the Thirteen Practical steps; and the practical consequences of Article X.1);

- providing a forum for discussion of past failures of implementation of the treaty, of criteria or yardsticks against which to measure compliance in the future, and of recommendations for future action by other organizations at national or multinational levels; and
- engaging in debate over “regional issues”—in the past, these have covered Iraq and South Africa—currently, this category is confined to North Korea, Iran, and Israel.

If the treaty is in practice non-amendable, this begs the question: what does strengthening the NPT imply if it is a treaty and not a regime (though commentators frequently conflate the two)? It cannot mean changing the text of the treaty. It could mean reinterpreting that text through an NPT Review Conference. This, however, raises the subsidiary question of whether such action would assist in creating trust and cooperation or, on the contrary, generate increased mistrust and non-cooperation (i.e., whether restoring trust and cooperation is now a prerequisite of such an activity, rather than a product of it).

Since 2004 this question has arisen in at least three areas:

- attempts to tease out the practical consequences of Article X.1;
- whether Article IV involves conditional or unconditional rights; and
- interpretations of Article VI, such as that contained in the Thirteen Steps of 2000.

In the first of these areas, attempts by the European Union and other states to clarify the steps a state should take in order to formally withdraw from the treaty; the role of the UN Security Council in that process; and the residual duties incumbent upon states after withdrawal, have generated negative responses from Non-Aligned Movement (NAM) states. They have perceived this as either making withdrawal more difficult or imposing additional duties upon them with no reciprocity or giving a role to the Security Council that is not contained in the treaty. For them the meaning is clear, and further exegesis unnecessary. This EU action thus appears to have generated mistrust, rather than strengthening trust.

A similar issue has arisen over the review process acting as a forum for discussion of past actions (or inaction) and future objectives. While the Thirteen Steps continue to offer a basis for discussions about compliance with Article VI (even if they are a major reinterpretation of it), few positive ideas have been offered on how to incorporate them into a dynamic process of setting new targets every five years. One possible way forward would be for a cross-cutting group, such as the EU or the New Agenda Coalition, or an individual state, to circulate a draft text of a new version of the Thirteen Steps as a potential working paper in 2009 and seek additional sponsors for it. If this gained traction, it would create a cross-cutting coalition behind such a text, which if successful would assist with trust building.

Regional issues will almost certainly continue to focus in the main on Israel and Iran, with Syria as a possible additional player given the events of May 2008. As happened in 2005, it is probable that Egypt and Iran (and Syria?) will seek some movement toward a nuclear-weapon-free zone (NWFZ) in the region as the price for allowing other discussions to move forward, unless external pressures can generate some change in previous behaviors. A key development here would be positive movement in the Middle East peace process, both in terms of Palestine and Syria. Also, if Egypt, Jordan, and the Emirates are serious in seeking to build nuclear power reactors on their territory, regional nuclear cooperative arrangements that include Israel may greatly facilitate this. A regional agreement not to attack such facilities would greatly enhance their prospects of such plans moving forward and would be a positive contribution to a process of trust building in the region.

An early resolution of the existing impasse over Iranian centrifuge enrichment capacity would also assist in this process. However, this issue could generate further divisions among NPT parties if uranium producers

(e.g., Australia) continue to promote such plants on their own territories on a commercial “value-added” basis. In short, developing an understanding on how restrictions on enrichment (and reprocessing?) plants might operate on a non-discriminatory and consensual basis would be a major contribution to building trust and ameliorating sources of future frictions.

Although this brief summary has identified some of the areas where specific issues related to trust and cooperation would operate in the NPT context, the question of how these might be translated into the Final Document of the 2010 Review Conference remains problematic. Agreeing such a document by consensus (even though it is a more rigorous form of consensus than operating at NAM meetings, where reservations can be expressed to parts of the final text) has become the rule; there are undoubtedly those who would not wish to change it. It was in this area that trust broke down most visibly in 2004–2005, when attempts were made by France and the United States to pull back from commitments in the disarmament area its diplomats had made in the negotiating process for the 2000 Final Document.

The way forward here may involve several discrete activities. One is to find a way of educating the media that the lack of a substantive Final Document does not necessarily equate with a failed Review Conference. Another is to press ahead with forging new constructive and responsive text in controversial areas such as the Middle East and disarmament, and then discuss the length of time during which this text will remain operative. A third is to find some acceptable way of enabling the “sense of the meeting” to be reflected in a Final Document in order to prevent individual states holding the rest of the NPT parties hostage. Again, one way of doing this could be through circulating language in draft working papers (not resolutions) and seeking sponsorship of them by the maximum number of states. In this way, differing positions could be articulated (and some even publicized via IAEA information circulars, as happened prior to 1995 with agreed language from Main Committees 2 and 3).

The Nonproliferation Regime

The nuclear nonproliferation regime focuses on the implementation of the norms and rules contained in the NPT. However, with the exception of IAEA safeguards, the UN Security Council, and UNSC 1540, the international bodies responsible for this are largely “coalitions of the willing” such as the NSG, the PSI and its Statement of Interdiction Principles, NATO, the EU, the G-8 Action Plan on Nonproliferation, the Global Nuclear Energy Partnership, the six-party talks on North Korea, and NWFZs. This has arisen from three sources: the inability of the existing NPT arrangements to address noncompliance with the treaty; the emergence of non-state nuclear procurement arrangements accessible to both proliferating states and terrorist organizations; and the supplier states creating their own rules for implementing their NPT commitments outside of global or regional multinational structures.

The issue of implementation is thus largely focused on how to build trust between those in the coalitions of the willing and those outside them, given that there is often no agreement on what constitutes noncompliance with the NPT. This is made more complex by the existence of the A.Q. Khan nuclear procurement network; the three de facto nuclear weapon states outside of the treaty; and the problem of dissuading the latter from undermining the activities of the coalitions of the willing, while yet not recognizing them as nuclear weapon states and offering them benefits for that status. The current debates surrounding the India-U.S. civil nuclear agreement and its impact on both the NPT and the regime, in particular the NSG, are illustrative of this.

In practice, the only forum where these issues can be grappled with is the NPT review process. However, this has in the past not been very productive, as some NAM states have argued that such activities are illegitimate in the context of the treaty and refused, for example, to have either the NPT or the Zangger Committee named in a Final Document. This has resulted, by default, in action taken outside of the treaty context. It is unclear how this situation could be ameliorated, yet unless it is, a major area of friction and mistrust will remain.

Part III: U.S. Leadership and Restoring Trust and Cooperation over NPT Norms

There can be little doubt that there has been a direct linkage between the policies of the current Bush administration in focusing its efforts on countering proliferation outside the multilateral NPT context (though using the treaty to justify military enforcement of its norms and rules) and the perceived erosion of trust and cooperation in the treaty context. In addition, its refusal until recently to discuss the downward trends in its nuclear stockpiles as part of a process of disarmament, let alone as a means of implementing its commitment to this objective, has also played a major part in this situation. A key issue for the future is therefore to what extent any new administration would move modes of implementation away from “coalitions of the willing” toward consensual multinational channels and be seen to be taking nuclear disarmament seriously.

In many ways, U.S. leadership in the nuclear disarmament area is likely to be easier to establish and accomplish by 2010 than in the other areas. Statements by prominent public figures have prepared the ground for this, as has military pressure to divert resources to usable conventional capabilities. Obama advisors have already been floating the idea in Europe of an initiative to reduce total (i.e., strategic and tactical) numbers of operational warheads held by Russia and the United States to a ceiling of 1,000, and even thinking in terms of deadlines and how the other three nuclear weapon states would be brought into the discussions before that stage was reached. The view in NATO is that if implemented, this would almost certainly mean the removal of all U.S. nuclear weapons from the region, and thus the end of the NATO nuclear sharing issue in an NPT context. Such a presidency also increases the chances of the United States ratifying the Comprehensive Nuclear-Test-Ban Treaty and being more flexible over a Fissile Material Cutoff Treaty, thus enabling the Conference on Disarmament to start to function again.

It may, however, prove more difficult to generate positive movement toward enhanced trust and cooperation in other areas of NPT implementation. Although the Bush administration appears to realize that many of its *ad hoc* initiatives will need to be institutionalized if they are to survive, there is increasing concern that they are absorbing large amounts of human resources both in the United States and overseas. The need to rationalize these proliferating implementation activities could offer opportunities for multilateral cooperation, though the tension between the need for effective and rapid decision-making structures for implementation and the lengthy and uncertain processes that are believed to be generated by their multinationalization may remain.

The United States has also been in the forefront of past attempts to rationalize the NPT review process. Markers have already been put down on the need to open opportunities for chairing meetings to all states irrespective of caucus group, and this may be hastened by the chairmanship activities at the 2009 PrepCom.

Part IV: Priorities

From the above, it seems clear that for there to be enhanced trust and cooperation in the context of the NPT and its review process, a number of developments are necessary. These are needed to reduce:

- *systemic* mistrust arising from claims of noncompliance with several articles of the treaty by different groups of states; the lack of compliance arrangements within the treaty and their consequent creation on a “coalition of the willing” basis outside of it; and the unclear role for the UN Security Council within the treaty;
- the lack of *calculative* and *affective* trust arising from the past behavior of states parties in relation to recommendations from PrepComs to Review Conferences and Final Documents of those conferences;
- the lack of *competency-based* trust arising from attempts by France and the United States to degrade/disown commitments made through the NPT review process and the lack of permanent institutions;
- the clash between those states that wish to reinterpret specific articles of the NPT and those who wish to maintain the status quo;

- the impasse between those who wish to amend the Thirteen Steps and other steps contained in the 2000 NPT Review Conference Final Document and those who wish to retain them;
- the propensity of states involved in regional conflicts to use the NPT review process to pursue their sectional interests at the expense of global solutions;
- the expansion of initiatives related to implementation of counter- and nonproliferation policies by “coalitions of the willing” in comparison with peaceful uses and disarmament ones;
- the willingness of nuclear weapon states to pursue policies of collaborating with de facto nuclear weapon states in comparison with NPT non-weapon parties;
- the Bush administration policies of focusing on solutions to nuclear noncompliance and enforcement outside the NPT context, rather than within it;
- the limited attention paid by the Bush administration until recently to grappling with issues of nuclear disarmament and publicizing their participation in the process of nuclear disarmament through reductions in warhead numbers; and
- the lack of serious attempts to rationalize the current NPT review process.

Proposals to address these issues arising from this analysis include:

- a cross-cutting group circulating a draft text of a new version of the Thirteen Steps as a working paper in 2009 and seeking as many sponsors as possible for it;
- movement to stabilize relevant regional conflicts, including agreements not to attack nuclear facilities;
- educating the media that a lack of a consensus Final Document is not the equivalent of a failed Review Conference;
- drafting text on controversial issues such as a Middle East NWFZ with clear statements on the duration of its applicability;
- changing the process of agreeing a Final Document to that used by the NAM, wherein states may indicate their objection to specific areas of the text;
- searching for ways through which compliance mechanisms operating outside the Review Process can be brought inside of it and a dialogue started on their universal acceptance;
- the new U.S. administration taking a major initiative on reducing its total stockpile of nuclear weapons down to 1,000 in order to stimulate reciprocal reductions by Russia and bring the other three NPT nuclear weapon states into Permanent Five discussions on reductions, plus generating negotiating space for a new version of the Thirteen Steps; and
- taking steps to rationalize the numerous ad hoc U.S.-led nonproliferation initiatives of the last eight years to both economize on scarce human resources and institutionalize them.

Of these, the priority areas appear to be those relating to new language on Thirteen Steps and the Middle East resolution, the former assisted by a major initiative by the new U.S. presidency on reducing global stocks of nuclear weapons. Second in order of priority will be to rationalize existing ad hoc approaches to compliance issues, including those related to future fuel cycle activities. Finally, there are a group of issues related to the dysfunctional nature of the NPT review process as it currently operates, in particular to move to the NAM system of recording the views of the parties in a final document. Of these, only the ones in the first priority area are essential; the rest are desirable.

CONTRIBUTORS

Linton F. Brooks is an independent consultant on national security issues, a senior advisor at the Center for Strategic and International Studies, and an advisor to two of the Department of Energy weapons laboratories. He served from July 2002 to January 2007 as administrator of the Department of Energy's National Nuclear Security Administration, where he was responsible for the U.S. nuclear weapons program and for the Department of Energy's international nuclear nonproliferation programs. Brooks has over four decades of experience in national security, including service as assistant director of the Arms Control and Disarmament Agency, chief U.S. negotiator for the Strategic Arms Reduction Treaty, director of defense programs and arms control on the National Security Council staff, and a number of Navy and Defense Department assignments as a 30-year career naval officer.

Thérèse Delpech is currently director for strategic studies at France's Atomic Energy Commission. She was a member of the commission that produced the 2008 French White Paper on Defense and Security and a member of the International Institute for Strategic Studies Council (2002–07). She has served as advisor to the French prime minister for politico-military affairs (1995–97) and as permanent consultant to the Policy Planning Staff, French Ministry of Foreign Affairs (1991–95). Delpech studied philosophy and is the author of six books: *L'héritage nucléaire* (1997), *La guerre parfaite* (1998), *Politique du chaos* (2002), *L'ensauvagement* (2005; translated in English as *Savage Century*, 2007), *L'Iran, la bombe et la démission des nations* (2006; translated in English in 2007), and *Le grand perturbateur, Réflexions sur la question iranienne* (2007). Her numerous articles on defense and strategic issues have appeared in journals including *Politique Etrangère*, *Commentaire*, *Politique Internationale*, *Le Meilleur des Mondes*, *Internationale Politik*, *Survival*, *Global*, *International Affairs*, *Washington Quarterly*, and *American Interest*.

Jean du Preez is director of the Nuclear Nonproliferation and Arms Control Project at the James Martin Center for Nonproliferation Studies (CNS) and nonproliferation professor at the Monterey Institute of International Studies. He also serves on the International Steering Committee of the Middle Powers Initiative and the International Panel on Fissile Material. He is a former diplomat and arms control negotiator with seventeen years of service in the South African Foreign Service. Prior to joining CNS in 2002, he served as senior political counselor (disarmament) to the United Nations, where he represented his country at the General Assembly First Committee on Disarmament, and at deliberations of the Non-Aligned Movement. He was also closely involved in the deliberations of the New Agenda Coalition countries. Other assignments included being deputy-director for nuclear nonproliferation and disarmament as well as for chemical, biological, and missile nonproliferation in the South African Foreign Service. He was also a member of the Council for the Non-Proliferation of Weapons of Mass Destruction—the national authority for implementing South Africa's international nonproliferation obligations. He has participated in numerous international arms control conferences, including the 1995, 2000, and 2005 Review Conferences of the Treaty on the Non-Proliferation of Nuclear Weapons and their Preparatory Committee meetings; the 2001 UN Conference on Small Arms and Light Weapons; the UN Expert Panel on Missiles; meetings of the Missile Technology Control Regime; and conferences of the Biological Weapons Convention and the Chemical Weapons Convention.

Robert Einhorn is a senior adviser in the International Security Program of the Center for Strategic and International Studies (CSIS). Before coming to CSIS, he served in the U.S. government for twenty-nine years. From November 1999 to August 2001, he was assistant secretary for nonproliferation at the Department of State,

where he was responsible for nonproliferation of nuclear, chemical, and biological weapons, missile delivery systems, and advanced conventional arms. Before becoming assistant secretary, Einhorn was deputy assistant secretary for nonproliferation in the State Department's Political-Military Bureau from 1992 to 1999 and a senior adviser in the department's Policy Planning Staff from 1986 to 1992. He served at the U.S. Arms Control and Disarmament Agency (ACDA) from 1972 to 1984, where he dealt with strategic arms issues, nuclear testing limits, chemical and biological weapons constraints, nonproliferation, and other security issues. From 1982 to 1986 he represented ACDA in the START talks.

Nabil Fahmy is ambassador at large at the Egyptian Foreign Ministry, after serving as ambassador of Egypt to the United States (1999–2008) and Japan (1997–99). He was the political advisor to the foreign minister (1992–97) and has held numerous posts in the Egyptian government related to UN affairs, disarmament, and the Middle East peace process. From 1999 until 2003, he was a member of the UN Secretary General's Advisory Board of Disarmament Matters, where he served as chairman in 2001. He headed the Egyptian delegation to the Middle East Peace Process Steering Committee in 1993 and to the Multilateral Working Group on Regional Security and Arms Control emanating from the Madrid Peace Conference from December 1991. He was elected vice chairman of the First Committee on Disarmament and International Security Affairs of the 44th Session of the UN General Assembly in 1986. He remains a member of the International Advisory Board of the Monterey Institute of International Studies. Fahmy has written extensively on Middle East politics, peacemaking, and regional security and disarmament.

Rose Gottemoeller is a senior associate in the Russia and Eurasia Program at the Carnegie Endowment for International Peace in Washington, DC. From January 2006 to December 2008 she served as the director of Carnegie's Moscow Center. She is an expert in nonproliferation, national security, Russian and Eurasian subjects, and U.S.-Russian relations. Before joining the Carnegie Endowment in 2000, Gottemoeller served as deputy undersecretary for defense nuclear nonproliferation in the Department of Energy; prior to that she was assistant secretary for nonproliferation and national security. She has also been deputy director of the International Institute for Strategic Studies, a director at the National Security Council, a social scientist at RAND Corporation, and a fellow at the Council on Foreign Relations. She is on the Editorial Board of the *Nonproliferation Review* and teaches courses on Russian security at Georgetown University.

Sverre Lodgaard is a senior research fellow at, and former director of, the Norwegian Institute of International Affairs in Oslo, Norway. A political scientist by training, he served for four years as the director of the UN Institute for Disarmament Research. He has also served as director of the International Peace Research Institute in Oslo and as director of the Stockholm International Peace Research Institute's European Security and Disarmament Studies. He is co-editor of *Nuclear Proliferation and International Security* (2007) and an expert in the Strengthening the Global Partnership project led by the Center for Strategic and International Studies.

Paul Meyer is a career foreign service officer whose last diplomatic assignment (2003–2007) was as Canada's ambassador and permanent representative to the office of the United Nations and the Conference on Disarmament in Geneva. In this capacity he led Canadian delegations to the Preparatory Committee meetings and Review Conference of the Treaty on the Non-Proliferation of Nuclear Weapons. He is currently based in Ottawa.

Harald Müller is director of the Peace Research Institute Frankfurt and professor of international relations at Goethe University Frankfurt. He served in the German delegation to the Review Conferences on the Treaty

on the Non-Proliferation of Nuclear Weapons in 1995, 2000, and 2005, and in the UN Secretary's Advisory Board on Disarmament Matters from 1999 to 2005.

Vladimir A. Orlov is president and founder of the PIR Center in Moscow and editor-in-chief of the journal *Security Index* (published until 2007 as *Yaderny Kontrol*). A leading expert on international security and foreign policy of the Russian Federation, he has focused his research on threats and challenges to international security, in particular, on proliferation of nuclear weapons. He also is president of the PIR Center's Geneva-based branch. Orlov is a member of the Public Board at the Ministry of Defense of Russian Federation, and he participates in the work of several international centers and organizations in the area of international security. He is a member of the Russian Pugwash Committee at the Presidium of the Russian Academy of Sciences; the Monterey Nonproliferation Strategy Group; the *Washington Quarterly* Editorial Board; and the Trialogue Club International, which he founded in 1993. In 2001–2002, Orlov worked as a consultant to the United Nations, contributing to the report by the UN secretary-general on disarmament and nonproliferation education and training. He teaches regularly at universities and training centers in Russia and throughout the world, lecturing on Russian foreign policy and nonproliferation.

William Potter is Sam Nunn and Richard Lugar Professor of Nonproliferation Studies and director of the James Martin Center for Nonproliferation Studies at the Monterey Institute of International Studies. He is the author or editor of fourteen books, the most recent of which is *The Four Faces of Nuclear Terrorism*. Potter serves on the Nonproliferation Panel of the U.S. National Academy of Sciences Committee on International Security and Arms Control. He is a member of the Council on Foreign Relations and served for five years on the UN Secretary-General's Advisory Board on Disarmament Matters.

Charles L. (Jack) Pritchard is president of the Korea Economic Institute (KEI) in Washington, DC. Prior to joining KEI, he was a visiting fellow at the Brookings Institution, from September 2003 until February 2006. He served as ambassador and special envoy for negotiations with the Democratic People's Republic of Korea and as U.S. representative to the Korean Peninsula Energy Development Organization in the administration of President George W. Bush from April 2001 until September 2003. He has also served as special assistant to the president for national security affairs and senior director for Asian affairs in the administration of President William J. Clinton. Pritchard obtained his bachelor's degree in political science from Mercer University in Georgia and his master's degree in international studies from the University of Hawaii. He is the recipient of the Defense Distinguished Service Medal.

John Simpson is professor of international relations and founding director of the Mountbatten Centre for International Studies at the University of Southampton. Until April 2002 he was program director of the international Programme for Promoting Nuclear Non-Proliferation. From 1982 to 1984 he served as the U.K. representative to the UN Secretary-General's Study Group on Conventional Disarmament and since 1999 has been an advisor to the U.K. delegation to the Preparatory Committee sessions and Review Conferences of the Treaty on the Non-Proliferation of Nuclear Weapons. He has served as a consultant to U.K. Ministry of Defence Arms Control Secretariats since the 1980s; sat on the UN Secretary-General's Advisory Board for Disarmament Matters from 1993 to 1998; and in 1999 was a member of the Tokyo Forum for Nuclear Non-Proliferation and Disarmament. In recent years he has worked on U.K. responses to nuclear terrorism; managed a research program on U.K. nuclear weapon history, 1953–75; and was a member of the Royal Society working group on the Future Management of Separated Plutonium in the United Kingdom, which published its report in September 2007.

He is a principal researcher on the Sustainability Assessment of Nuclear Power and has published extensively on nuclear nonproliferation and the military use of nuclear energy in Britain. He was awarded the Order of the British Empire in 1999 for services to nuclear nonproliferation.

Nikolai N. Sokov is a senior research associate at the James Martin Center for Nonproliferation Studies. He graduated from Moscow State University in 1981 and subsequently worked at the Institute of U.S. and Canadian Studies and the Institute of World Economy and International Relations in Moscow. From 1987 to 1992 he worked at the Ministry for Foreign Affairs of the Soviet Union and later Russia; he participated in negotiations on Strategic Arms Reduction Treaties I and II, as well as in a number of summit and ministerial meetings. Sokov has published extensively on international security and arms control, including numerous articles and monographs. He is the author of *Russian Strategic Modernization: Past and Future* (2000), and the co-author and co-editor of *Yadernoe Nerasprostranenie*, the first Russian-language college-level textbook on nuclear nonproliferation (2002, 2nd edition).

Leonard S. Spector is deputy director of the Monterey Institute of International Studies' James Martin Center for Nonproliferation Studies (CNS) and leads the center's Washington, DC office. Spector joined CNS from the Department of Energy (DOE), where he served as an assistant deputy administrator for arms control and nonproliferation at the National Nuclear Security Administration. Prior to his tenure at DOE, he served as senior associate at the Carnegie Endowment for International Peace and director of its Nuclear Non-Proliferation Project. He also established the Program on Post-Soviet Nuclear Affairs at Carnegie's Moscow Center. Before joining the Carnegie Endowment, Spector served as chief counsel to the U.S. Senate Energy and Proliferation Subcommittee; he began his career in nuclear nonproliferation as a special counsel at the Nuclear Regulatory Commission. He has participated on the Senior Advisory Panels at the Sandia National Laboratories, the Los Alamos National Laboratory, and the National Research Council of the American Academy of Sciences. He has also served as secretary and member of the Board of Trustees of the Henry L. Stimson Center and is a member of the Council on Foreign Relations and the Washington, DC Bar. His many publications include: *Tracking Nuclear Proliferation 1995: A Guide in Maps and Charts* (with Mark McDonough and Evan Medeiros, 1995); *Nuclear Ambitions: The Spread of Nuclear Weapons, 1989–1990* (1990); and *The Undeclared Bomb: The Spread of Nuclear Weapons, 1987–1988* (1988).

Jing-dong Yuan directs the East Asia Nonproliferation Program at the James Martin Center for Nonproliferation Studies and is associate professor of international policy studies at the Monterey Institute of International Studies, where he also coordinates the Certificate in Nonproliferation Studies program. A graduate of the Xi'an Foreign Language University, People's Republic of China, he received his Ph.D. in political science from Queen's University in 1995 and has had research and teaching appointments at Queen's University, York University, University of Toronto, and the University of British Columbia, where he was a recipient of the prestigious Izaak Killam Postdoctoral Research Fellowship. Yuan's research and teaching focuses on Asia-Pacific security, global and regional arms control and nonproliferation issues, U.S. policy toward Asia, and China's defense and foreign policy, in particular its defense and nuclear modernization efforts. He has published more than sixty monographs, journal articles, and book chapters, and his op-eds have appeared in *International Herald Tribune*, *Japan Times*, *Los Angeles Times*, *South China Morning Post*, and *Far Eastern Economic Review*, among others. He is the co-author of *China and India: Cooperation or Conflict?* (2003) and is working on a manuscript on post-Cold War Chinese security policy.

ABBREVIATIONS

ACC	Arab Cooperation Council
ACDA	Arms Control and Disarmament Agency
ACRS	Arms Control and Regional Security
AP	Additional Protocol
CBM	confidence-building measure
CIA	Central Intelligence Agency
CTBT	Comprehensive Nuclear-Test-Ban Treaty
DOE	Department of Energy
DPRK	Democratic People's Republic of Korea
EU	European Union
FMCT	Fissile Material Cutoff Treaty
GCC	Gulf Cooperation Council
HEU	highly enriched uranium
IAEA	International Atomic Energy Agency
INCSEA	Incidents at Sea Agreement
IND	improvised nuclear device
INFCIRC	information circular
LAS	League of Arab States
LEU	low-enriched uranium
MNSG	Monterey Nonproliferation Strategy Group
MPC&A	material protection, control, and accounting
MT	metric tons
NAC	New Agenda Coalition
NAM	Non-Aligned Movement
NATO	North Atlantic Treaty Organization
NIE	National Intelligence Estimate
NNWS	non-nuclear weapon state
NPT	Treaty on the Non-Proliferation of Nuclear Weapons
NSG	Nuclear Suppliers Group
NWFZ	nuclear-weapon-free zone
NWS	nuclear weapon states
OSCE	Organization for Security and Cooperation in Europe
P-5	Permanent Five
PLA	People's Liberation Army
R&D	research and development
S&T	science and technology
SORT	Strategic Offensive Reductions Treaty
START	Strategic Arms Reduction Treaty
UN	United Nations
UNSC	UN Security Council
WINS	World Institute for Nuclear Security
WMD	weapons of mass destruction

**James Martin Center for Nonproliferation Studies
Monterey Institute of International Studies
460 Pierce St.
Monterey, CA 93940
USA**

tel: 831.647.4154
fax: 831.647.3519
cns.miis.edu