

Chapter 1

The New Containment: An Alliance Against Nuclear Terrorism

Graham Allison and Andrei Kokoshin

During the Cold War, American and Russian policymakers and citizens thought long and hard about the possibility of nuclear attacks on their respective homelands. But with the fall of the Berlin Wall and the disappearance of the Soviet Union, the fears of a nuclear conflict faded from most minds. This is ironic and potentially tragic, since the threat of a nuclear attack on the United States or Russia is certainly greater today than it was in 1989.

In the aftermath of Osama bin Laden's September 11, 2001, assault, which awakened the world, especially Americans, to the reality of global terrorism, it is incumbent upon national security analysts everywhere to think again about the unthinkable. Could a nuclear terrorist assault happen today? Our considered answer is: yes, unquestionably, without any doubt. It is not only a possibility but, in fact, the most urgent unaddressed national security threat to both the United States and Russia.¹

Consider this hypothetical: a crude nuclear weapon constructed from

This article is reprinted with permission from *The National Interest*. It appeared as: Graham Allison and Andrei Kokoshin, "The New Containment: An Alliance Against Nuclear Terrorism," *The National Interest*, Vol. 69 (Fall 2002), pp. 35-45.

1. This judgment echoes the major finding of a Department of Energy Task Force on nonproliferation programs with Russia led by Howard Baker and Lloyd Cutler: "The most urgent unmet national security threat to the United States today is the danger that weapons of mass destruction or weapons-usable material in Russia could be stolen and sold to terrorists or hostile nation states and used against American troops abroad or citizens at home." *A Report Card on the Department of Energy's Nonproliferation Programs with Russia*, January 10, 2001. <<http://www.hr.doe.gov/seab/rusrpt.pdf>>

stolen materials explodes in Red Square in Moscow. The blast of a bomb made from just 40 pounds of highly enriched uranium would instantaneously destroy tens of thousands of lives as well as the Kremlin, Saint Basil's Cathedral, the ministries of foreign affairs and defense, and the Tretyakov Gallery. In Washington, D.C., an equivalent explosion near the White House would completely destroy that building, the Old Executive Office Building, and everything within a one-mile radius, including the Departments of State, Treasury, the Federal Reserve—and all of their occupants (as well as damaging the Potomac-facing side of the Pentagon).

Psychologically, such a hypothetical is as difficult to internalize as are the plot lines of a writer like Tom Clancy, whose novel *Debt of Honor* ends with terrorists crashing a jumbo jet into the U.S. Capitol on Inauguration Day and whose *The Sum of All Fears* contemplates the very scenario we discuss—the detonation of a nuclear device in a major American metropolis by terrorists. That these kinds of scenarios are physically possible is an undeniable, brute fact.

After the first nuclear terrorist attack, the Russian Duma, U.S. Congress, and the press will investigate: who knew what and when? They will ask what could have been done to prevent the attack and demand vigorous action to prevent future nuclear terrorism. Most officials will no doubt seek cover behind the claim that “no one could have imagined” this happening. But that defense does not ring true. Today, we have unambiguous warnings that a nuclear terrorist attack could happen at any moment. Responsible leaders should be asking hard questions now. Nothing prevents the governments of Russia, America, and other countries from taking effective action today—except, a lack of determination.

The argument here can be summarized in two propositions: first, nuclear terrorism poses a clear and present danger to the United States, Russia, and other nations; second, nuclear terrorism is a largely *preventable* disaster. Preventing nuclear terrorism is a large, complex, but ultimately finite challenge that can be contained by a bold, determined, but nonetheless finite response. The current mismatch between the seriousness of the threat and the actions governments are now taking to meet it is unacceptable for American, Russian, and global security. Below, we assess the threat and outline a solution that begins with a U.S.-Russian-led “Alliance Against Nuclear Terrorism.”

Assessing the Threat

A comprehensive threat assessment must consider both the likelihood of an event and the magnitude of its anticipated consequences. As de-

scribed above, even a crude nuclear explosion in a city would produce devastation in a class by itself.² A half-dozen nuclear explosions across the United States or Russia would shift the course of history. The question is: how likely is such an event?

Security studies offer no well-developed methodology for estimating the probabilities of unprecedented events. Contemplating the possibility of a criminal act, Sherlock Holmes investigated three factors: motive, means, and opportunity. That framework can be useful for analyzing the question at hand. If no actor simultaneously has motive, means, and opportunity, no nuclear terrorist act will occur. Where these three factors are abundant and widespread, the likelihood of a nuclear terrorist act increases. The questions become: is anyone *motivated* to instigate a nuclear attack? Could terrorist groups acquire the *means* to attack the United States or Russia with nuclear weapons? Could these groups find or create an *opportunity* to act?

Motive: There can be no doubt that Osama bin Laden and his associates have serious nuclear ambitions. For almost a decade they have been actively seeking nuclear weapons, and, as President Bush has said, they would use such weapons against the United States or its allies “in a heartbeat.” In 2000, the CIA reportedly intercepted a message in which a member of al Qaeda boasted of plans for a “Hiroshima” against America. According to the U.S. Justice Department indictment for the 1998 bombings of American embassies in Kenya and Tanzania, “at various times from at least as early as 1993, Osama bin Laden and others, known and unknown, made efforts to obtain the components of nuclear weapons.” In addition, a former al Qaeda member has described attempts to buy uranium of South African origin, repeated travels to three Central Asian states to try to buy a complete warhead or weapons-usable material, and discussions with Chechen criminal groups in which money and drugs were offered for nuclear weapons.

Bin Laden himself has declared that acquiring nuclear weapons is a religious duty. “If I have indeed acquired [nuclear] weapons,” he once said, “then I thank God for enabling me to do so.” When forging an alliance of terrorist organizations in 1998, he issued a statement entitled

2. Although biological and chemical weapons can cause huge devastation as well, “the massive, assured, instantaneous, and comprehensive destruction of life and property” of a nuclear weapon is unique. See Matthew Bunn, John P. Holdren, and Anthony Wier, “Securing Nuclear Weapons and Materials: Seven Steps for Immediate Action,” Nuclear Threat Initiative and the Managing the Atom Project, May 20, 2002, p. 2 or <http://www.nti.org/e_research/securing_nuclear_weapons_and_materials_May2002.pdf>. This report provides extensive, but not overly technical detail on many of the points in this essay.

“The Nuclear Bomb of Islam.” Characterized by renowned Middle Eastern scholar Bernard Lewis as “a magnificent piece of eloquent, at times even poetic Arabic prose,” it states: “It is the duty of Muslims to prepare as much force as possible to terrorize the enemies of God.” If anything, the ongoing American-led war on global terrorism is heightening our adversary’s incentive to obtain and use a nuclear weapon. Al Qaeda has discovered that it can no longer attack the United States with impunity. Faced with an assertive, determined opponent now doing everything it can to destroy this terrorist network, al Qaeda has every incentive to take its best shot.

Russia also faces adversaries whose objectives could be advanced by using nuclear weapons. Chechen terrorist groups, for example, have demonstrated little, if any, restraint in their willingness to kill civilians and may be tempted to strike a definitive blow to assert independence from Russia. They have already issued, in effect, a radioactive warning by planting a package containing cesium 137, an extremely radioactive isotope and potential ingredient for a “dirty bomb,” at Izmailovsky Park in Moscow and then tipping off a Russian reporter. Particularly as the remaining Chechen terrorists have been marginalized over the course of the second Chechen war, they could well imagine that by destroying one Russian city and credibly threatening Moscow, they could persuade Russia to halt its campaign against them.

All of Russia’s national security documents—its *National Security Concept*, its military doctrine, and the recently updated *Foreign Policy Concept*—have clearly identified international terrorism as the greatest threat to Russia’s national security. As President Vladimir Putin noted in reviewing Russian security priorities with senior members of the Foreign Ministry in January 2001, “I would like to stress the danger of international terrorism and fundamentalism of any, absolutely any stripe.” The proliferation of religious extremism in Central Asia, relating directly to the rise of the Taliban in Afghanistan, and the illegal drug trade threaten Russia’s borders and weaken the Commonwealth of Independent States. The civil war in Tajikistan, tensions in Georgia’s Pankisi Gorge, and the conflicts in South Ossetia, Abkhazia, and Nagorno-Karabakh—all close to the borders of the Russian Federation—provide feeding grounds for the extremism that fuels terrorism. Additionally, Russia’s geographical proximity to South Asia and the Middle East increases concerns over terrorist fallout from those regions. President Putin has been consistent in identifying the even darker hue that weapons of mass destruction add to terrorism. In a December 2001 interview in which he named international terrorism the “plague of the 21st century,” Putin stated: “We all know exactly how New York and Washington were hit. . . . Was it ICBMs? What

threat are we talking about? We are talking about the use of mass destruction weapons terrorists may obtain.”

Separatist militants (in Kashmir, the Balkans, and elsewhere) and messianic terrorist groups (like Aum Shinrikyo, which attacked a Tokyo subway with chemical weapons in 1995) could have similar motives to commit nuclear terrorism. As Palestinians look to uncertain prospects for independent statehood—never mind whose leadership actually increased that uncertainty in recent years—Israel becomes an ever more attractive target for a nuclear terrorist attack. Since a nuclear detonation in any part of the world would likely be extremely destabilizing, it would threaten American and Russian interests even if few or no Russians or Americans were killed.

Means: To the best of our knowledge, no terrorist group can now detonate a nuclear weapon. But as Secretary of Defense Donald Rumsfeld has stated, “The absence of evidence is not evidence of absence.” Are the means beyond terrorists’ reach, even that of relatively sophisticated groups like al Qaeda?

Over four decades of Cold War competition, the superpowers spent trillions of dollars assembling mass arsenals, stockpiles, nuclear complexes, and enterprises that engaged hundreds of thousands of accomplished scientists and engineers. Technical know-how cannot be un-invented. Reducing arsenals that include some 40,000 nuclear weapons and the equivalents of more than 100,000 nuclear weapons in the form of highly enriched uranium and plutonium to a manageable level is a gargantuan challenge. Providing gainful employment for those that comprised what once was a million-man nuclear establishment is a critical challenge as well.

Terrorists could seek to buy an assembled nuclear weapon from insiders or criminals. Nuclear weapons are known to exist in eight states: the United States, Russia, Great Britain, France, China, Israel, India, and Pakistan. North Korea’s admission, in October 2002, that it has an active uranium-enriching program signifies that it may soon become part of the nuclear threat. Security measures, such as “permissive action links” designed to prevent unauthorized use, are most reliable in the United States, Russia, France, and Great Britain. These safeguards, as well as command-and-control systems, are much less reliable in the two newest nuclear states—India and Pakistan. But even where good systems are in place, maintaining high levels of security requires constant attention from high-level government officials.

Alternatively, terrorists could try to build a nuclear weapon. The only component that is especially difficult to obtain is the nuclear fissile material—highly enriched uranium or plutonium. Although the largest stock-

piles of weapons-grade material are found in the nuclear weapons programs of the United States and Russia, fissile material in sufficient quantities to make a crude nuclear weapon can also be found in many civilian settings around the globe. Some 345 research reactors in 58 nations together contain about 20 metric tons of highly enriched uranium, many in quantities sufficient to build a bomb.³ Other civilian reactors produce enough weapons-grade nuclear material to pose a proliferation threat; several European states, Japan, Russia, and India reprocess spent fuel to separate out plutonium for use as new fuel. The United States has actually facilitated the spread of fissile material in the past—over three decades of the Atoms for Peace program, the United States exported 749 kg of plutonium and 26.6 metric tons of highly enriched uranium to 39 countries.⁴

Terrorist groups could obtain these materials by theft, illicit purchase, or voluntary transfer from state control. There is ample evidence that attempts to steal or sell nuclear weapons or weapons-usable material are not hypothetical, but a recurring fact.⁵ In the fall of 2001, the chief of the directorate of the Russian Defense Ministry responsible for nuclear weapons reported two incidents in which terrorist groups attempted to perform reconnaissance at Russian nuclear storage sites but were repulsed. The 1990s saw repeated incidents in which individuals and groups successfully stole weapons material from sites in Russia and sought to export them—but were caught trying to do so. In one highly publicized case, a group of insiders at a nuclear weapons facility in Chelyabinsk, Russia, plotted to steal 18.5 kg (40.7 lbs) of highly enriched uranium, which would have been enough to construct a bomb, but were thwarted by Russian Federal Security Service agents.

In the mid-1990s, material sufficient to allow terrorists to build more than 20 nuclear weapons—more than 1,000 pounds of highly enriched uranium—sat unprotected in Kazakhstan. Iranian and possibly al Qaeda operatives with nuclear ambitions were widely reported to be in Kazakhstan. Recognizing the danger, the American government itself

3. See U.S. Department of Energy, *FY 2003 Budget Request: Detailed Budget Justifications—Defense Nuclear Nonproliferation* (Washington, D.C.: DOE, February 2002): p. 172. <<http://www.cfo.doe.gov/budget/03budget/content/defnn/nuclnonp.pdf>>.

4. Jeffrey Fleishman, "Sting Unravels Stunning Mafia Plot," *Philadelphia Inquirer*, January 12, 1999. Summarized in NIS Nuclear Trafficking Database <<http://www.nti.org/db/nistraff/1999/19990110.htm>>.

5. The Nuclear Threat Initiative maintains a database of cases and reported incidents of trafficking in nuclear and radioactive materials in and from the former Soviet Union, at <<http://www.nti.org/db/nistraff/index.html>>.

purchased the material and removed it to Oak Ridge, Tennessee. In February 2002, the U.S. National Intelligence Council reported to Congress that “undetected smuggling [of weapons-usable nuclear materials from Russia] has occurred, although we do not know the extent of such thefts.” Each assertion invariably provokes blanket denials from Russian officials. Russian Atomic Energy Minister Aleksandr Rumyantsev has claimed categorically: “Fissile materials have not disappeared.” President Putin has stated that he is “absolutely confident” that terrorists in Afghanistan do not have weapons of mass destruction of Soviet or Russian origin.

For perspective on claims of the inviolable security of nuclear weapons or material, it is worth considering the issue of “lost nukes.” Is it possible that the United States or Soviet Union lost assembled nuclear weapons? At least on the American side the evidence is clear. In 1981, the U.S. Department of Defense published a list of 32 accidents involving nuclear weapons, *many of which resulted in lost bombs*.⁶ One involved a submarine that sank along with two nuclear torpedoes. In other cases, nuclear bombs were lost from aircraft. Though on the Soviet/Russian side there is no official information, we do know that four Soviet submarines carrying nuclear weapons have sunk since 1968, resulting in an estimated 43 lost nuclear warheads.⁷ These accidents suggest the complexity of controlling and accounting for vast nuclear arsenals and stockpiles.

Nuclear materials have also been stolen from stockpiles housed at research reactors. In 1999, Italian police seized a bar of enriched uranium from an organized crime group trying to sell it to a law enforcement agent posing as a Middle Eastern businessman with presumed ties to terrorists. On investigation, the Italians found the uranium originated from a U.S.-supplied research reactor in the former Zaire, where it presumably had been stolen or purchased *sub rosa*.

Finally, as President Bush has stressed, terrorists could obtain nuclear weapons or weapons material from states hostile to the United States. In his now famous phrase, Bush called hostile regimes developing weapons of mass destruction and their terrorist allies an “axis of evil.” He argued that states such as Iraq, Iran, and North Korea, if allowed to realize their nuclear ambitions, “could provide these arms to terrorists, giving them the means to match their hatred.” The fear that a hostile regime might transfer a nuclear weapon to terrorists has contributed to the Bush administration’s development of a new doctrine of preemption against such

6. U.S. Department of Defense, “Narrative Summaries of Accidents Involving U.S. Nuclear Weapons: 1950–1980,” April 1981.

7. Joshua Handler, Amy Wickenheiser, and William M. Arkin, “Naval Safety 1989: The Year of the Accident,” *Neptune Paper No. 4*, April 1989.

regimes, with Iraq as the likely test case. It also adds to American concerns about Russian transfer of nuclear technologies to Iran. While Washington and Moscow continue to disagree on whether any civilian nuclear cooperation with Iran is justified, both agree on the dangers a nuclear-armed Iran would pose, and Russia is more than willing to agree that there should be no transfers of technology that could help Iran make nuclear weapons.

Opportunity: Security analysts have long focused on ballistic missiles as the preferred means by which nuclear weapons would be delivered. But today this is actually the least likely vehicle by which a nuclear weapon will be delivered against Russia or the United States. Ballistic weapons are hard to produce, costly, and difficult to hide. A nuclear weapon delivered by a missile also leaves an unambiguous return address, inviting devastating retaliation. As Robert Walpole, a National Intelligence Officer, told a U.S. Senate subcommittee in March 2002, “Nonmissile delivery means are less costly, easier to acquire, and more reliable and accurate.”⁸ Despite this assessment, the U.S. government continues to invest much more heavily in developing and deploying missile defenses than in addressing more likely trajectories by which weapons could arrive.

Terrorists would not find it difficult to sneak a nuclear device or nuclear fissile material into the United States via shipping containers, trucks, ships, or aircraft. The nuclear material required is smaller than a football. Even an assembled device, like a suitcase nuclear weapon, could be shipped in a container, in the hull of a ship, or in a trunk carried by an aircraft. After 9/11, the number of containers currently arriving daily at the port of New York/New Jersey that are X-rayed has increased to about 500 of 5,000, approximately 10 percent. But as the chief executive of CSX Lines, one of the foremost container-shipping companies, put it: “If you can smuggle heroin in containers, you may be able to smuggle in a nuclear bomb.”

Effectively countering missile attacks will require technological breakthroughs well beyond current systems. Success in countering covert delivery of weapons will require not just technical advances but a conceptual breakthrough. Recent efforts to bolster border security are laudable but just begin to scratch the surface. More than 500 million people, 11 million trucks, and two million rail cars cross into the United States each year, while 7,500 foreign-flag ships make 51,000 calls in U.S. ports. That’s

8. Statement of Robert Walpole before the Senate Subcommittee on International Security, Proliferation, and Federal Services, March 11, 2002. <http://www.senate.gov/gov_affairs/031102walpole.pdf>.

not counting the tens of thousands of people, hundreds of aircraft, and numerous boats that enter illegally and are uncounted. Given this volume and the lengthy land and sea borders of the United States, even a radically renovated and reorganized system cannot aspire to be airtight.

The opportunities for terrorists to smuggle a nuclear weapon into Russia or another state are even greater. Russia's land borders are nearly twice as long as America's, connecting it to more than a dozen other states. In many places, in part because borders between republics were less significant in the time of the Soviet Union, these borders are not closely monitored. Corruption has been a major problem among border patrols. Visa-free travel between Russia and several of its neighbors creates additional opportunities for weapons smugglers and terrorists. The "homeland security" challenge for Russia is truly monumental.

In sum: even a conservative estimate must conclude that dozens of terrorist groups have sufficient motive to use a nuclear weapon, several could potentially obtain nuclear means, and hundreds of opportunities exist for a group with means and motive to make the United States or Russia a victim of nuclear terrorism. The mystery before us is not how a nuclear terrorist attack could possibly occur, but, rather, why no terrorist group has yet combined motive, means, and opportunity to commit a nuclear attack. We have been lucky so far, but who among us trusts luck to protect us in the future?

*Chto Delat—What is to be Done?*⁹

The good news about nuclear terrorism can be summarized in one line: no highly enriched uranium or plutonium; no nuclear explosion, no nuclear terrorism. Though the world's stockpiles of nuclear weapons and weapons-usable materials are vast, they are finite. The prerequisites for manufacturing fissile material are many and require the resources of a modern state. Technologies for locking up super-dangerous or valuable items—from gold in Fort Knox to treasures in the Kremlin Armory—are well developed and tested. While challenging, a specific program of actions to keep nuclear materials out of the hands of the most dangerous groups is not beyond reach, *if* leaders give this objective highest priority and hold subordinates accountable for achieving this result.

The starting points for such a program of specific actions are already in place. In his major foreign policy campaign address at the Ronald Reagan Library, then-presidential candidate George W. Bush called for "Con-

9. *Chto Delat* is a proverbial Russian refrain meaning, "What is to be done?"

gress to increase substantially our assistance to dismantle as many Russian weapons as possible, as quickly as possible." In his September 2000 address to the United Nations Millennium Summit, Russian President Putin proposed to "find ways to block the spread of nuclear weapons by excluding use of enriched uranium and plutonium in global atomic energy production." The Joint Declaration on the New Strategic Relationship between the United States and Russia signed by the two presidents at the May 2002 summit stated that the two partners would combat the "closely linked threats of international terrorism and the proliferation of weapons of mass destruction." Another important result yielded by the summit was the upgrading of the Armitage/Trubnikov-led U.S.-Russia Working Group on Afghanistan to the U.S.-Russia Working Group on Counter-terrorism, whose agenda is to address the threats posed by nuclear, biological, and chemical terrorism.

Operationally, however, priority is measured not by words but by deeds. A decade of Nunn-Lugar Cooperative Threat Reduction Programs has accomplished much in safeguarding nuclear materials. Unfortunately, the job of upgrading security to minimum basic standards is mostly unfinished: by U.S. Department of Energy accounts, two-thirds of the nuclear material in Russia remains to be adequately secured.¹⁰ Bureaucratic inertia, bolstered by mistrust and misperception on both sides, leaves these joint programs bogged down on timetables that extend to 2008. Unless implementation improves significantly, they will probably fail to meet even this unacceptably distant target. What is required on both sides is personal, presidential priority measured in commensurate energy, specific orders, funding, and accountability. This should be embodied in a new U.S.-Russian-led "Alliance Against Nuclear Terrorism."

When it comes to the threat of nuclear terrorism, many Americans judge Russia to be part of the problem, not the solution. But if Russia is welcomed and supported as a fully responsible nonproliferation partner, the United States stands to accomplish far more toward minimizing the risk of nuclear terrorism than if it treats Russia as an unreconstructed pariah. As the first step in establishing this alliance, the two presidents should pledge to each other that his government will do everything technically possible to prevent criminals or terrorists from stealing nuclear weapons or weapons-usable material, and do so on the fastest possible timetable. Each should make clear that he will personally hold accountable the entire chain of command within his own government to assure

10. Matthew Bunn, John P. Holdren, and Anthony Wier. "Securing Nuclear Weapons and Materials: Seven Steps for Immediate Action." Nuclear Threat Initiative and the Managing the Atom Project, May 20, 2002.

this result. Understanding that each country bears responsibility for the security of its own nuclear materials, the United States should nonetheless offer any assistance required to make this happen.¹¹ Each nation—and leader—should provide the other sufficient transparency to monitor performance.

To ensure that this is done on an expedited schedule, both governments should name specific individuals, directly answerable to their respective presidents, to co-chair a group tasked with developing a Russian-American strategy within one month. In developing a joint strategy and program of action, the nuclear superpowers should establish a new “international security standard” based on President Putin’s Millennium proposal for new technologies that allow production of electricity with lowly enriched, non-weapons-usable nuclear fuel.

A second pillar of this Alliance would reach out to all other nuclear weapons states—beginning where the threat of theft is currently greatest: Pakistan. Each should be invited to join the Alliance and offered assistance, if necessary, in assuring that all weapons and weapons-usable materials are secured to the new established international standard in a manner sufficiently transparent to reassure all others. Invitations should be diplomatic in tone but nonetheless clear that this is an offer that cannot be refused.

A third pillar of this Alliance calls for global outreach along the lines proposed by Senator Richard Lugar of Indiana in what has been called the “Lugar doctrine.”¹² All states that possess weapons-usable nuclear materials—even those without nuclear weapons capabilities—must enlist in an international effort to guarantee the security of such materials from theft by terrorists or criminal groups. In effect, each would be required to meet the new international security standard and to do so in a transparent fashion. Pakistan is particularly important given its location and relationship with al Qaeda, but, beyond nuclear weapons states, several dozen additional countries hosting research reactors—such as Serbia, Libya, and Ghana—should be persuaded to surrender such material (almost all of it either American or Soviet in origin) or have the material secured to acceptable international standards.

A fourth pillar of this effort should include Russian–American-led cooperation in preventing the spread of nuclear weapons to additional

11. A U.S. Department of Energy Task Force estimated that this would cost about \$30 billion over several years, an amount the president could surely persuade Congress to appropriate, if he made this goal his highest national security priority.

12. Speech by Richard Lugar, May 27, 2002, at the Moscow Nuclear Threat Initiative Conference, < <http://lugar.senate.gov/052702.html> >.

states, focusing sharply on North Korea, Iraq, and Iran. The historical record demonstrates that where the United States and Russia have cooperated intensely, aspiring nuclear actors have been largely stymied. It was only during periods of competition or distraction, for example in the mid-1990s, that new nuclear weapons states openly declared the realization of their ambitions. India and Pakistan provide two vivid case studies. Recent Russian-American-Chinese cooperation in nudging India and Pakistan back from the nuclear brink suggests a good course of action. The new alliance should reinvent a robust nonproliferation regime of controls on the sale and export of weapons of mass destruction, nuclear material, and missile technologies, recognizing the threat to each of the major states that would be posed by a nuclear-armed Iran, North Korea, or Iraq.

Finally, adapting lessons learned in U.S.-Russian cooperation in the campaign against bin Laden and the Taliban, this new Alliance should be heavy on intelligence-sharing and counterproliferation efforts, including disruption and preemption to prevent acquisition of materials and know-how by nuclear wannabes. Beyond joint intelligence sharing, joint training for preemptive actions against terrorists, criminal groups, or rogue states attempting to acquire weapons of mass destruction would provide a fitting enforcement mechanism for alliance commitments.

As former Senator Sam Nunn of Georgia has noted: "At the dawn of a new century, we find ourselves in a new arms race. Terrorists are racing to get weapons of mass destruction; we ought to be racing to stop them."¹³ Preventing nuclear terrorism will require no less imagination, energy, and persistence than did avoiding nuclear war between the superpowers over four decades of the Cold War. But absent deep, sustained cooperation between the United States, Russia and other nuclear states, such an effort is doomed to failure. In the context of the qualitatively new relationship Presidents Putin and Bush have established in the aftermath of 9/11, success in such a bold effort is within the reach of determined Russian-American leadership. Succeed we must.

13. Sam Nunn, "Our new security framework," *Washington Post*, October 8, 2001.