Making Good on the Prague Promise

INSIDE: Preventing Nuclear Terrorism | Four Years From Prague An Enduring Legacy | A World Without Bomb Material
Meeting Expectations? President Barack Obama poses with his Nobel Peace Prize in Oslo, Norway, after receiving the award in 2009. Many argued it was too early to judge the president’s accomplishments on peace, including his commitments to securing nuclear material to prevent a nuclear terrorist attack. (AP Photo/John McConnico)

Cover. President Barack Obama delivers a speech in Prague, Czech Republic, in April 2009, in which he outlined his vision for a world free of nuclear weapons and committed to an ambitious agenda to secure all vulnerable nuclear material around the world within four years. The speech set in motion a series of leader-level summits in which securing nuclear material was the focus. The next of these summits is to be held in the Netherlands in 2014. (AP/Corbis Photo/Herbert Knasowski)
Nuclear Security

Preventing Nuclear Terrorism

Obama’s personal and diplomatic leadership are essential to success

In his 2009 Nobel Peace Prize acceptance speech, President Barack Obama acknowledged the threat of nuclear terrorism as one of the “common challenges of the 21st century.” He stated, “The world may no longer shudder at the prospect of war between two nuclear superpowers, but proliferation may increase the risk of catastrophe. Terrorism has long been a tactic, but modern technology allows a few small men with outsized rage to murder innocents on a horrific scale.”

With the announcement of the Nobel committee’s selection of Obama came much debate over whether his actions had warranted the prize. The committee chair responded to the criticism by saying, “We have not given the prize for what may happen in the future. We are awarding Obama for what he has done in the past year. And we are hoping this may contribute a little bit for what he is trying to do.”

One of the things recognized by the committee was the president’s initial bold action in pursuit of a plan laid out in a speech Obama gave in Prague in April 2009 on the future of nuclear weapons in the 21st century. In this speech, he outlined concrete steps that the United States would take toward a world without nuclear weapons. To address the threat of nuclear terrorism, Obama said he was “announcing a new international effort to secure all vulnerable nuclear material around the world within four years.”

Three years after Obama accepted the Nobel Peace Prize and nearly four years after his momentous Prague speech, we consider in this issue of Courier whether the nuclear terrorism threat looks the same as it did back then. Rolf Mowatt-Larssen, a former CIA intelligence officer now with Harvard University’s Belfer Center for Science and International Affairs, examines the nuclear terrorism threat today after the assassination of Osama bin Laden and with recent global efforts to improve nuclear security.

Now is also the time to consider what it will take to make the goal of securing all the material a reality. Nancy Soderberg, a former deputy national security advisor and now president of the Connect U.S. Fund, and Ryan Costello, a program associate with the Connect U.S. Fund and coordinator of the Fissile Materials Working Group, an international coalition of nongovernmental organizations, suggest key steps that the United States can take under Obama’s leadership to create a legacy for the president: keeping the world safe from the threat of nuclear terrorism.

In his article, Miles Pomper of the James Martin Center for Nonproliferation Studies at the Monterey Institute of International Studies states, “If the world wants to eliminate the threat of nuclear terrorism, it has to eliminate the fissile material...that the terrorists would need to carry out such an attack.” As a step in the right direction, he offers suggestions for how we can eliminate the nonmilitary, or civilian, use of weapons-grade nuclear material in the United States.

Having just been sworn in for a second term, President Obama is never going to be in a better position to boldly pursue his vision than he is today. In Prague, Obama declared that “as a nuclear power, as the only nuclear power to have used a nuclear weapon, the United States has a moral responsibility to act. We cannot succeed in this endeavor alone, but we can lead it, we can start it.”

While the initial efforts recognized by the Nobel Peace Prize Committee are noteworthy, the world now needs Obama to finish what he started. He can do that by making sure the United States continues to demonstrate true leadership in pursuit of the international cooperation required to address this common threat.

—Jennifer Snyser
Program Officer, The Stanley Foundation
Four Years From Prague

Bin Laden is gone, Al Qaeda is weakened, yet the threat of nuclear terrorism persists

Twenty years after the breakup of the Soviet Union, the threat of nuclear war between the United States and Russia is minuscule. Ultimately, the sobering reality of mutually assured destruction proved to be an effective deterrent to the use of nuclear weapons. Paradoxically, however, the risks of nuclear catastrophe are higher now than in the waning days of the Cold War. Today we confront a different kind of threat—that a terrorist group will buy, steal, or build an improvised nuclear device powerful enough to destroy any city in the world.

President Obama’s Prague speech introduced a new way of thinking about nuclear weapons. The resulting action plan includes making deep cuts in US-Russian nuclear arsenals; shoring up the nuclear nonproliferation regime; securing all nuclear weapons and materials to a “Fort Knox” gold standard; shutting down trafficking in nuclear materials and eliminating the nuclear black market; and strengthening intelligence and law enforcement capabilities to identify and neutralize terrorist plans to acquire and use weapons of mass destruction.

Nuclear security alone is insufficient to eliminate the threat of nuclear terrorism because there is no such thing as perfect security.

The litmus test of progress in locking up all weapons and materials is to determine whether they are available on the black market. Over the past 20 years, there has been an average of one reported seizure a year of weapons-usable material. In all of these cases, it was not reported missing from the facility of origin, and it is likely that not all material has been recovered. Other cases have not been publicized. Eliminating all trafficking and black market activity is a crucial test for intelligence and law enforcement agencies, because as long as any weapons-usable material is missing from nuclear facilities, there is a danger that terrorists will acquire it. Consequently, intelligence and law enforcement agencies must give a higher priority, dedicate additional resources, and pay closer attention to nuclear smuggling.

Rising Risks

Nuclear risks are rising as nuclear arsenals expand. The South Asian arms race raises the odds of a miscalculation that could lead to nuclear war. This is no small threat in an unstable region rife with extremism and violence. An expanding nuclear infrastructure also increases the possibility that insiders will provide capability to terrorists.

The Nuclear Non-Proliferation Treaty stands on shaky ground: four of the eight states with nuclear weapons—Israel, Pakistan, India, and North Korea—are not constrained by its provisions. The treaty could be shattered in the event Iran decides to cross the nuclear weapons Rubicon. If Iran breaks out, it will exacerbate nuclear proliferation risks in the region and raise the possibility that Saudi Arabia will pursue nuclear weapons as a counterbalance.

Iran is not alone in its defiance of the nonproliferation regime. North Korea’s covert attempt to provide Syria with a reactor capable of producing weapons-grade material was narrowly averted by Israel’s bombing of the facility. However, North Korea’s reckless decision to provide a turnkey bomb-making capability to Syria raises serious questions about the regime’s sense of nuclear responsibility. Are there any limits to Pyongyang’s willingness to secretly export nuclear technologies, materials, and know-how? Is it possible that nuclear capabilities will end up in the hands of terrorists with or without the knowledge of North Korea’s leaders?

Only two groups are known to have harbored the intent to perpetrate terrorist attacks using nuclear weapons:

“Our nuclear weapon exploded in one city—be it New York or Moscow, Islamabad or Mumbai, Tokyo or Tel Aviv, Paris or Prague—could kill hundreds of thousands of people. And no matter where it happens, there is no end to what the consequences might be—for our global safety, our security, our society, our economy, to our ultimate survival.”

—President Barack Obama, Prague, April 5, 2009
the Japanese cult group Aum Shinrikyo and the Islamist militant group Al Qaeda. The experiences of these two groups demonstrate the difficulties any terrorist organization would have in acquiring nuclear capability.

**Low Odds, High Impact**

The Al Qaeda core leadership under Osama bin Laden decided to acquire weapons of mass destruction in the 1990s. Even though these projects enjoyed senior leadership priority and attention, the group appears to have had little success in acquiring real capability. In the aftermath of the September 11 attacks, the obstacles to crossing the nuclear Rubicon have become more formidable. Osama bin Laden is dead. Al Qaeda lacks operational experience, and the group’s leadership has been seriously depleted. It is more difficult for the group to plan, stage, and conduct large-scale attacks. Much of the core leadership’s decision making has been passed to autonomous offshoots that are more focused on regional goals and objectives. Moreover, the events of the Arab Spring have sapped Al Qaeda’s strength as a movement. Popular support for the group’s extreme ideology appears to be waning as new political alternatives are emerging.

However, it would be a mistake to conclude that Al Qaeda is no longer capable of pulling off another 9/11-type attack.

The September 11 attacks were largely planned in the relatively safe environment of Hamburg, Germany. The plotters met in the sanctuary of a safe house in Kuala Lumpur, Malaysia, in June 2001, to coordinate final details of their impending attack. Such locations are not within range of the drones that patrol the skies of the tribal areas in Pakistan. It is also important to not dismiss the possibility that a core still exists that is capable of planning a megaterrorist attack. There are not many operatives who could fulfill the roles played by Khalid Shaikh Mohammed and Mohammed Atta in planning the 9/11 attack, but Sayf al-Adl, Adnan Shukrijumah, and Abd al-Aziz al-Masri are three such experienced operatives who remain at large; all have connections to the group’s weapons-of-mass-destruction programs.

The Al Qaeda core leadership’s nuclear intent remains unshaken. In 2008, Al Qaeda leader Ayman al-Zawahiri explained in his book, *Exoneration*, his rationale for killing eight million Americans. There the Egyptian terrorist lays out a chilling justification under Islam for an act of megaterrorism that would indiscriminately kill innocent men, women, and children of all faiths. His detailed expository builds on a fatwa to justify using weapons of mass destruction that was issued by Saudi cleric Nasir al-Fahd in May 2003.

Zawahiri and his ilk can and must be denied fulfillment of their intention to plunge the world into madness. Nuclear terrorism is not inevitable. But success demands that we take the problem seriously. The blueprint for success was laid out in Prague. Now all we have to do is fulfill it.

—Rolf Mowatt-Larssen

Senior Fellow, Belfer Center for Science and International Affairs, Harvard University, and former CIA intelligence officer
An Enduring Legacy on Nuclear Security

Four years ago, President Obama set a goal to secure nuclear material; now it’s time to deliver

As President Obama enters his second term, he should plan to build significantly on his legacy to secure the world’s nuclear weapons and materials. A terrorist attacking a city with an improvised nuclear device, killing hundreds of thousands and crippling the global economy, is one of the greatest security threats today. While the president has already made progress in preventing that threat, there is still much to do in his second term.

Before a crowd of 20,000 in Prague’s Hradčany Square on April 5, 2009, Obama used the first major foreign policy speech of his presidency to lay out a vision to reduce and eventually eliminate the threat that nuclear weapons pose. The president noted the “strange turn of history” in which “the threat of global nuclear war has gone down, but the threat of nuclear attack has gone up,” because of the spread of nuclear technology and the determination of terrorists to acquire and use a nuclear weapon.

The president pledged to take “concrete steps” to reduce all categories of nuclear danger, including reducing the number of nuclear arms and preventing their spread—and he has, signing New START and imposing tough multilateral sanctions on Iran. On nuclear terrorism, the president announced in Prague an ambitious goal to “secure all vulnerable nuclear materials within four years,” and he said the United States would host a summit for heads of state on nuclear security within a year.

Almost exactly a year later, President Obama launched the Nuclear Security Summit (NSS), which became a signature accomplishment of his first term, raising global awareness of the threat at the highest levels and accelerating international action. Forty-seven heads of state gathered in Washington, DC, where they acknowledged that nuclear terrorism is “one of the most challenging threats to international security” and endorsed Obama’s four-year goal to secure all vulnerable nuclear materials.

In addition, 30 of the participating nations announced more than 60 concrete national commitments, most of which were completed within two years.

The Republic of Korea hosted a second summit in 2012, where 53 nations reaffirmed the goal to secure all vulnerable materials and pledged more than 100 concrete national commitments. Additionally, the participating nations announced two deadlines: the end of 2013 for the announcement of voluntary steps to minimize the civilian use of highly enriched uranium and 2014 for the entry into force of the amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM).

Focusing on the Issue

While relatively few nations consider nuclear security a top policy priority, the NSS process has focused leaders on the issue, helping them to cut red tape at home and announce or follow through on commitments. Perhaps the most tangible results of the NSS process: eight nations have eliminated their stocks of nuclear weapons-usable material since 2009, with more nations making reductions in their stocks. The fewer number of sites that house nuclear material, the easier it is to keep the world’s supply secure.

However, to ensure a lasting legacy on nuclear security, President Obama will have to articulate an even bolder and clearer vision for nuclear security early in his second term. He and his international counterparts must now address major gaps in the nuclear security regime: the lack of comprehensive standards of protection for nuclear materials and transparency in state-based nuclear security measures.

The 2014 summit in the Netherlands is the best opportunity for leaders to address these shortcomings by establishing standards for protection and transparency that will serve as indicators that the world’s nuclear materials are secure. Obama and his colleagues will also have to determine at that summit if
Additionally, President Obama needs to sustain US global cooperation to enhance nuclear security. The Nunn-Lugar Cooperative Threat Reduction Program, a 20-year-old program based on cooperation between the United States and Russia to eliminate and strengthen security related to weapons and materials of mass destruction in former Soviet states, is in jeopardy. With the agreement set to expire in July 2013, the president must work with Russia to secure a new agreement that sustains this critical, collaborative work on reducing weapons-of-mass-destruction threats well into the future.

The road ahead may not be easy, but the president has demonstrated his personal commitment to preventing nuclear terrorism. If he picks up the pace in his second term, keeping the world safe from this threat will be a truly monumental legacy.

—Nancy Soderberg, President, Connect U.S. Fund, and former deputy national security advisor, and Ryan Costello, Program Associate, Connect U.S. Fund, and Coordinator, Fissile Materials Working Group
Realizing a World Without Weapons–Usable Nuclear Material

The most vulnerable Holdings of nuclear and radiological material are in civilian hands, and it is possible to eliminate them.
It is actually rather simple: If the world wants to eliminate the threat of nuclear terrorism, it has to eliminate the fissile material—highly enriched uranium (HEU) or plutonium—that the terrorists would need to carry out such an attack. And the most vulnerable holdings of such material are likely to be in facilities like research reactors and commercial reprocessing plants rather than military compounds. Moving toward a world without weapons-usable material in the civilian realm is both possible and necessary.

Indeed, over the last few decades, and particularly since the September 11 attacks, the United States and the international community have taken some important steps in this regard. Thanks to US and Russian efforts and the two nuclear security summits initiated by President Obama, scores of research reactors have been converted from HEU to the safer low enriched uranium (LEU) used in nuclear power reactors; Russia has stopped producing plutonium in commercial reactors; and nearly two dozen countries have been “cleaned out” of dangerous fissile materials. Yet much more needs to be done.

Getting There
The first step is to broaden and deepen the effort to eliminate nonmilitary use of HEU. Diplomatically, that means taking advantage of international forums such as the Nuclear Security Summits—including a third scheduled for 2014 in the Netherlands—to internationalize a recent policy document from the Obama administration that calls for ending HEU civil use rather than merely minimizing it.

South Africa, Argentina, and Australia have taken steps to encourage companies to produce with LEU the rare isotopes used in medical diagnostics and treatment, and more countries need to follow their lead. Eliminating civilian use of HEU means pressuring some countries, such as Belarus, to end use of HEU in research reactors. More than 100 reactors around the world still use the dangerous material. And it calls for some countries that have ended their use of HEU to return their remaining stocks to their countries of origin (as Ukraine, Mexico, and Austria have done recently) to be converted to less dangerous LEU. Most crucially, it requires supporting Russia’s newfound willingness to convert its vast HEU-based civil infrastructure, and tackling the technical issues involved with more difficult conversions of facilities.

The Plutonium Challenge
If the challenge when it comes to eliminating HEU is to make more progress faster, the challenge when it comes to plutonium is to stop making things worse. More and more of this weapons-usable material is piling up around the world. According to the International Panel on Fissile Materials, as of January 2012, there were more than 256 tons of plutonium separated from nuclear power reactor fuel. Given that the International Atomic Energy Agency says only 8 kilograms of such material would be sufficient for a crude nuclear weapon, the current total is akin to tens of thousands of nuclear weapons. Yet the stockpile is still growing—it is 100 tons larger than it was just 15 years ago.

The stockpile continues to grow because countries like the United Kingdom, France, and Russia built up their reprocessing programs and separated tons of plutonium in the belief that uranium would be scarce and expensive, justifying the extra expense of making new fuel from the plutonium, and setting aside the grave security dangers involved. However, that has not proven to be the case. So the result is mountains of plutonium built on a shaky foundation.

A particularly egregious case is Japan. Tokyo continues to insist on advancing its plutonium reprocessing program and opening a massive new multibillion-dollar reprocessing facility even though it already has 44 tons of separated plutonium and no place to put recycled fuel now or in the future. Currently, no reactors in Japan use reprocessed fuel, and Tokyo has indicated that the country is likely to phase out the use of nuclear energy within the next few decades.

International meetings like the Nuclear Security Summits have been blocked from effectively addressing this issue because of the unwillingness of political leaders to challenge influential commercial reprocessors like Japan’s utilities, France’s Areva, and Russia’s Rosatom. But as President Obama said earlier this year, “the smallest amount of plutonium—about the size of an apple—could kill hundreds of thousands and spark a global crisis. We simply cannot go on accumulating huge amounts of the very material, like separated plutonium, that we are trying to keep away from terrorists.” Leaders must be willing to act on this concern at the 2014 summit in the Netherlands.

Finally, materials like cesium-137 and strontium-90 cannot produce the catastrophic damage of nuclear weapons, but terrorists could use them for dirty bombs or other means to produce mass panic, damage public health, and cause billions of dollars in commercial damage. Moving toward using these materials in less-dispersible, less-transportable forms and funding safer alternatives would be important contributions to a world without weapons-usable nuclear and radiological material.

—Miles Pomper
Senior Research Associate, James Martin Center for Nonproliferation Studies
Each year the Stanley Foundation convenes the Strategy for Peace Conference on a wide range of US national security and foreign policy issues with experts from the public and private sectors who meet in autonomous roundtables. These meetings are designed with an eye toward the future of American relations with the world, the results of which are published in nonattributed policy dialogue briefs.

2012 Concurrent Roundtables:

**Nuclear Material Security**

**Effective and Sustainable Global Nuclear Security: Looking Beyond the Horizon**

With the Nuclear Security Summit (NSS) process likely coming to an end after the 2014 summit in the Netherlands, the next 18 months are crucial for setting an effective long-term agenda for nuclear security and capitalizing on the momentum created by heads-of-state-level political engagement. Within this context it is important to recognize that improving the nuclear security architecture cannot be confined to or defined by the summit process, but rather the NSS should be seen as a driver of a larger, long-term effort to improve nuclear security worldwide. January 2013 policy dialogue brief.

**Global Leadership**

**Domestic Constraints on Global Cooperation**

When analysts and practitioners—especially in Washington and other Western capitals—assess issues on the international agenda, they tend to focus on rising powers’ policy stances without delving into their internal considerations. Participants discussed ideas for a more comprehensive and holistic approach to the major collective action problems of today’s world. The conference brought together experts from Brazil, India, and the United States, and the agenda covered food security, energy security and climate change, and nuclear nonproliferation. January 2013 policy dialogue brief.

**Preventing Genocide**

**Assisting States to Prevent Atrocities: Implications for Development Policy, Stabilization Assistance, and Post-Conflict Peacebuilding**

The Responsibility to Protect as affirmed at the 2005 United Nations World Summit detailed a series of shared commitments to protect civilian populations from mass-atrocity crimes—among them the responsibility of the international community to “assist states under stress” to “build capacity” to prevent and protect at the domestic level. Since 2005, the concept of reinforcing state responsibilities through international assistance has enjoyed consistent political support but lacked clear policy directives for implementation. Participants explored the strategic and policy dimensions of assisting “states under stress” to prevent atrocity violence. January 2013 policy dialogue brief.

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**NUCLEAR MATERIAL SECURITY**

**Beyond Boundaries in Southeast Asia: Dual-Benefit Capacity Building to Bridge the Security/Development Divide**

The Stanley Foundation and the Stimson Center have released the latest report in their Beyond Boundaries series with a specific focus on Southeast Asia. This report provides targeted recommendations building a holistic approach that bridges hard and softer security objectives with development needs worldwide. January 2013 conference report.

**GLOBAL LEADERSHIP**

**Shifting Coalitions and Potential Blocs for Asian and Pacific Leadership in the G-20**

The Stanley Foundation collaborated with the Shanghai Institutes for International Studies, Global Summitry Project at the Munk School of Global Affairs at the University of Toronto, and Korea Development Institute to convene the third annual Shanghai conference on Asian leadership and the G-20. Now with the benefit of four years and seven summits since the first meeting of G-20 leaders in 2008, we can start making preliminary assessments of the G-20 summits’ record in spurring international cooperation. November 2012 policy dialogue brief.

**PREVENTING GENOCIDE**

**Building State Capacity to Prevent Atrocity Crimes: Implementing Pillars One and Two of the R2P Framework**

Implementing the Responsibility to Protect (R2P) requires a concerted domestic and international effort to build domestic atrocity-prevention capacity. David Simon focuses on the aspects of state and local capacity building—assisted where appropriate through international cooperation—that offer the best hope of realizing R2P principles before the prospect of adversarial intervention arises. September 2012 policy analysis brief.
The Now Showing event-in-a-box toolkits offered by the Stanley Foundation are designed to encourage discussion about the most urgent global issues today. They contain everything needed for an easy-to-plan, successful event.

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**Fragile States, Global Consequences**
This toolkit features a DVD that helps viewers examine the global challenge of fragile states. It aims to encourage discussion of the growing movement in the international community to find comprehensive ways to promote stronger nations and more effective ways to deal with those that are already on the brink of failure.

**Radioactive Challenge**
This toolkit features a DVD that helps viewers examine the challenge of securing vulnerable nuclear materials globally. It aims to encourage discussion of the complexities of the “world’s greatest security challenge,” keeping nuclear material out of the hands of terrorists.

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Few things worry national security officials more than the possibility of a terrorist attack with a nuclear, chemical, or biological weapon of mass destruction (WMD). The fear of nuclear proliferation, in particular, was confirmed in 2004 with the revelation that A.Q. Khan, a Pakistani nuclear scientist, was operating a black market to sell nuclear technology and know-how. In response, the United States pushed for and secured passage of UN Security Council Resolution 1540 (UNSCR 1540), which obligates all UN member states to take steps to prevent the spread of WMD materials to nonstate actors.

The 1540 Committee at the UN serves as a matchmaker of sorts, connecting country requests for assistance or capacity building—like new technology or training—with donor countries able to meet those needs. Efforts to meet the obligation of the resolution also provide an opportunity to bridge the security and development divide, where developing nations can meet their pressing domestic needs while also strengthening their controls against WMD proliferation. Because not all countries have the capacity to meet the obligation of UNSCR 1540, a collaborative regional approach between countries with shared challenges often works best.

In a new video from the Stanley Foundation, experts working on UNSCR 1540 explain what this looks like in practice. You can find the video at www.youtube.com/stanleyfoundation.