

## **Threat Reduction and Fissile Material Security**

### **Background**

One of the major U.S. responses to the end of the Cold War and the disintegration of the Soviet Union was the establishment of the Cooperative Threat Reduction program, dubbed the CTR or Nunn-Lugar program after Sens. Sam Nunn (D-GA) and Richard Lugar (R-IN).

Sen. Lugar warned in late November 1991 that the Soviet breakup might degrade international stability and the security of nuclear arsenals. Sen. Nunn summed up concerns about the risk of theft or sale of nuclear weapons and the proliferation of WMDs beyond the borders of the former Soviet Union in this way: “We are on the verge of either having the greatest destruction of nuclear weapons in the history of the world or the greatest proliferation of nuclear weapons, nuclear materials, and scientific know-how on how to make these weapons, as well as chemical weapons, ballistic missiles, even biological weapons [that] the world has ever seen.”

The U.S. Senate passed the initial CTR legislation in 1991, 86-8, as an amendment to the implementing legislation for the Conventional Forces in Europe Treaty. The House later accepted it in conference. The final legislation, called the Soviet Nuclear Threat Reduction Act of 1991, authorized \$400 million in Defense Department funds to help the Soviet Union and its “successor entities” with three broad tasks: “destroy nuclear weapons, chemical weapons, and other weapons”; “transport, store, disable, and safeguard weapons in connection with their destruction”; and “establish verifiable safeguards against the proliferation of such weapons.”

Four years later, both the Department of State (DOS) and the Department of Energy (DOE) began to request funds for their own complementary programs in nuclear nonproliferation and security (including the Materials Protection, Control and Accounting program).

The Global Threat Reduction Initiative (GTRI) was created in 2004 as a coordinated international effort, involving the United States, Russia, and the International Atomic Energy Agency, to secure vulnerable fissile and radiological material in about 40 countries. It repatriates Russian and U.S.-origin highly enriched uranium (HEU) fuel from research reactors and power plants around the world. It also modifies power plants to operate using a non-weapons-usable form of uranium (low-enriched uranium, or LEU) rather than HEU. In addition, the program secures radiological material that could be stolen and used to make a dirty bomb.

From FY 1992 through FY 2007, the Cooperative Threat Reduction program has received a total of about \$6.5 billion (an average of about \$400 million annually) as part of the National Defense Authorization Act and the Defense Appropriations Act. GTRI has received about \$261 million from FY 2004 through FY 2006 as part of the Energy and Water Appropriations Act.

CTR and DOE programs address security, transportation, and storage of nuclear warheads and bomb-grade materials. These programs include fissile material storage such as the construction of a \$400 million storage facility in Mayak, Russia, designed to hold more than 25,000 containers of fissile material from about 25,000 dismantled weapons. CTR has also helped to implement the 1991 START I bilateral nuclear disarmament agreement and the 2002 Moscow Treaty (Strategic Offensive Reductions Treaty, or SORT).

As of 2006, the CTR program has deactivated 6,934 nuclear warheads and destroyed 633 intercontinental ballistic missiles (ICBMs), 485 ICBM silos, 80 ICBM mobile launchers, 595 submarine-launched ballistic missiles (SLBMs), 155 strategic bombers, and 30 strategic nuclear submarines. In addition, all nuclear warheads have been returned to Russia from the former Soviet republics of Belarus, Kazakhstan, and the Ukraine. All strategic weapons infrastructure, including missiles and silos, has also been eliminated in Belarus and Kazakhstan and elimination is under way in the Ukraine.

The safe storage and destruction of Russian chemical weapons has also been a top priority of the CTR program, with \$1.1 billion spent to date. In addition, the CTR program has sought to engage Russia in demilitarizing its biological weapons (BW) establishment (estimated at 60,000 employees in more than 50 dispersed sites) by improving the security of BW sites, redirecting former weapons scientists, and helping Russia to develop more modern surveillance and monitoring systems.

Challenges still remain to effectively secure vulnerable material as security upgrades are far from complete. For example, as of the end of FY 2005, U.S.-funded comprehensive security and accounting upgrades had been completed at only 54% of the buildings in the former Soviet Union with potentially vulnerable bomb-grade material. In addition, for many countries beyond the former Soviet Union, security upgrades have barely (if at all) begun and major gaps remain, including U.S.-supplied HEU abroad that is not covered by the take-back offer and dozens of HEU-fueled research reactors (almost half of the total number) that are not yet targeted for conversion.

## **Talking Points**

- **Cooperative Threat Reduction programs are vital and should be accelerated.**

One stated goal of al Qaeda and other non-state terrorist groups is to obtain and use weapons of mass destruction against the West. Therefore, the security and elimination of “loose nukes,” radioactive materials, chemical weapons, and biological pathogens is vital to the safety and security of all Americans. Accelerating the programs that secure and destroy vulnerable materials and weapons before it is too late is a wise investment that will decrease the risk of their spreading to countries or terrorists hostile to the United States.

- **The U.S. commitment to threat reduction and nonproliferation is central to the G-8 Global Partnership.**

The G-8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction was founded in 2002 at Kananaskis, Canada, to encourage other countries to support threat reduction goals in the former Soviet Union. At Kananaskis, the G-8 pledged to commit \$20 billion over ten years (with the U.S. pledging half—\$10 billion—including CTR and nonproliferation funds) to create a multilateral nonproliferation coalition of two dozen countries operating under the banner of the Global Partnership.

- **Funding for CTR and nonproliferation programs must be increased.**

Funding for CTR—\$372 million in FY 2007—is 20% below FY 2006 levels, and 50% or more below initial funding a decade ago (after adjusting for inflation). With enormous work to be done

to ensure WMD nonproliferation, most post-9/11 reports and studies have emphasized the need for additional funding for efforts in the former Soviet Union and around the globe. The 2001 Baker-Cutler report, for example, recommended spending \$30 billion over ten years to secure nuclear weapons and vulnerable fissile material.

- **Congress must exert better oversight over CTR and related nonproliferation programs.**

President Bush and many other national leaders have identified the proliferation of WMDs and related materials to terrorists as the gravest threat to U.S. security. Yet Congress has exercised little oversight in recent years, and funding remains below recommended levels.

### **Prior Legislation**

For FY 2007, the full range of nonproliferation and threat reduction programs requested by the President for the Departments of Defense, Energy, and State totaled about \$1.3 billion: \$372 million for CTR in Defense; \$834 million for Energy's nonproliferation programs; and \$163 million for State's Nonproliferation and Disarmament Fund (NDF) and related efforts. The FY 2006 emergency supplemental included an additional \$44.5 million in CTR funds for nuclear warhead security in Russia and support of the Putin-Bush Bratislava 2005 summit agreement.

### **Legislative Recommendations for 2007**

- Increase funding for Cooperative Threat Reduction (CTR) initiatives in the Department of Defense from \$372 million in FY 2007 to \$500 million in FY 2008 to help promote nonproliferation of WMDs. Fund construction of the chemical weapons destruction facility at Shchuch'ye, Russia.
- Increase funding for the Global Threat Reduction Initiative (GTRI) in the Department of Energy from \$107 million in FY 2007 (requested) to \$150 million in FY 2008 to secure fissile materials globally.
- Increase funding for the Nonproliferation and Disarmament Fund (NDF) in the Department of State from \$38 million in FY 2007 (requested) to \$138 million in FY 2008 to support nonproliferation of conventional weapons globally. (See Lugar-Obama conventional threat reduction bill, S.2566, in the conventional arms section of this briefing book.)
- Eliminate all existing congressional conditions on CTR funds in Title XIII of the National Defense Authorization Act to accelerate nonproliferation programs.
- Establish an Executive Branch czar position for coordinating and overseeing weapons of mass destruction threat reduction programs.
- Fully fund construction of chemical weapons (CW) destruction facilities at Blue Grass, Kentucky, and Pueblo, Colorado—\$250 million each in FY 2007 and FY 2008—to accelerate CW demilitarization and meet legal obligations under the Chemical Weapons Convention.

### **Additional Resources**

Arms Control Association: Threat Reduction/Nunn-Lugar News and Analysis

<http://www.armscontrol.org/subject/tr/>

Bunn, Matthew, and Anthony Wier, "Securing the Bomb 2006"  
[http://www.nti.org/e\\_research/stb06webfull.pdf](http://www.nti.org/e_research/stb06webfull.pdf)

Hoehn, William, "Update on Congressional Activity Affecting International Cooperative Nonproliferation Programs," *RANSAC Policy Update*, June 7, 2006  
[http://www.ransac.org/PDFFrameset.asp?PDF=june\\_2006\\_legislative\\_update.pdf](http://www.ransac.org/PDFFrameset.asp?PDF=june_2006_legislative_update.pdf)

Schlichter, Luke, "Reported Accomplishments of Selected Threat Reduction and Nonproliferation Programs, by Agency, for Fiscal Year 2005," *RANSAC Policy Update*, December 2006  
[http://www.ransac.org/PDFFrameset.asp?PDF=2005\\_accomplishments\\_final.pdf](http://www.ransac.org/PDFFrameset.asp?PDF=2005_accomplishments_final.pdf)

Strengthening the Global Partnership, "Assessing the Global Partnership: From Kananaskis to St. Petersburg," July 2006  
[http://www.sgpproject.org/publications/publications\\_index.html](http://www.sgpproject.org/publications/publications_index.html)

U.S. Department of Defense, Cooperative Threat Reduction Program  
<http://www.defenselink.mil/pubs/ctr/>

Walker, Paul F., "Nunn-Lugar at 15: No Time to Relax Global Threat Reduction Efforts," *Arms Control Today*, May 2006  
[http://www.armscontrol.org/act/2006\\_05/nunnlugar15.asp](http://www.armscontrol.org/act/2006_05/nunnlugar15.asp)

Walker, Paul F., and Janina de Guzman, "Implementing Chemical Weapons Destruction in Russia: An Investigation of Best Practices in WMD Demilitarization," *SGP Issue Brief #6*, February 2006  
<http://www.sgpproject.org/publications/SGPIssueBrief/Walker-deGuzman%20Final.pdf>