



CIR

Cooperative Threat Reduction Annual Report to Congress Fiscal Year 2010



Information Cutoff Date:
December 31, 2008

Table of Contents

Introduction.....	1
Figure 1: Program-assisted activities.....	2
Program Activities and Assistance – Includes FY 2010 Implementation Plan and FY 2008	
Accounting Activities	6
1. Strategic Offensive Arms Elimination.....	8
1.1. Solid Propellant ICBM/SLBM and Mobile Launcher Elimination - Russia.....	8
1.2. Liquid Propellant ICBM/SLBM Missile and Silo Elimination - Russia	9
1.3. SLBM Launcher Elimination/SSBN Dismantlement - Russia.....	9
2. Strategic Nuclear Arms Elimination.....	9
2.1. SS-24 Missile Disassembly, Storage, and Elimination - Ukraine	9
3. Chemical Weapons Destruction.....	10
3.1. Chemical Weapons Destruction Facility - Russia	10
4. Nuclear Weapons Storage Security	10
4.1. Site Security Enhancements – Russia.....	11
4.2. Far East Training Center – Russia	11
4.3. Automated Inventory Control and Management System – Russia.....	11
5. Nuclear Weapons Transportation Security	12
5.1. Nuclear Weapons Transportation – Russia.....	12
5.2. Railcar Maintenance and Procurement – Russia	12
6. Biological Threat Reduction.....	12
6.1. Biosecurity, Biosafety, Threat Agent Detection and Response.....	14
6.2. Cooperative Biological Research.....	16
7. Weapons of Mass Destruction Proliferation Prevention Initiative	17
7.1. Land Border and Maritime Proliferation Prevention – Ukraine.....	18
7.2. Caspian Sea Maritime Proliferation Prevention – Azerbaijan.....	19
7.3. Fissile and Radioactive Material Proliferation Prevention – Kazakhstan	19
7.4. Expanded Proliferation Prevention.....	19
8. Defense and Military Contacts (DMC).....	19
9. New Initiatives.....	20
10. Other Assessments/Administrative Support	21
10.1. Audits and Examinations	21
10.2. Program Management/Administration	21
Figure 2: Program accountability actions for FY 2008	22
Figure 3: The amount notified, obligated, and expended for activities in millions.....	22
Figure 4: Program FY 2010 Plan funding by program/project in millions.....	23
Figure 5: Program FY 2010 Plan funding by objective in millions.....	23
Figure 6: Program FY 2010 Plan funding by country in millions	24
Appendix A: CTR Program Umbrella and Implementing Agreements.....	25
Appendix B: Financial Commitments for FY 2009 from the International Community and Russia for the Chemical Weapons Destruction Facility at Shchuch’ye, Russia	29
Appendix C: Report on Cooperative Threat Reduction Moscow Treaty Assistance Pursuant to S. Exec. Rpt. 108-1, Section 2(1).....	31
Appendix D: Annual Certification on Use of Facilities Being Constructed for Cooperative Threat Reduction Projects or Activities	33
Acronyms and Abbreviations	35

Introduction

Recurring Requirements Addressed in This Report

The Annual Report to Congress on Cooperative Threat Reduction (CTR) activities (CTR Annual Report) for Fiscal Year (FY) 2010 is submitted in accordance with Section 1308 of the Floyd D. Spence National Defense Authorization Act (NDAA) for FY 2001, as amended. It addresses the FY 2008 requirement for “Accounting for CTR Program Assistance to States of the Former Soviet Union (FSU),” and the Treaty on Strategic Offensive Reductions (Moscow Treaty) Report (Senate Executive Report 108-1, Section 2(1)), dated March 6, 2003 (Appendix C). It also addresses the annual certifications on use of facilities being constructed, as required by Section 1307 of the FY 2004 NDAA (Appendix D). The “Five-Year CTR Program Implementation Plan” only includes FY 2010 since the Administration has not completed a program and budget review for FY 2011–FY 2015.

CTR Program and United States National Security

The National Security Presidential Directive on the National Strategy to Combat Weapons of Mass Destruction issued in December 2002 cites possession of weapons of mass destruction (WMD) by hostile states and terrorists as one of the greatest security challenges facing the United States and commits the United States to pursue a comprehensive strategy to counter this threat. The strategy calls on United States (U.S.) agencies to apply new technologies, increase emphasis on intelligence collection and analysis, strengthen alliances, and establish new partnerships with former adversaries. Another National Security Presidential Directive was issued in April 2004, “Biodefense for the 21st Century,” for efforts against biological weapons (BW) threats. The CTR Program supports these directives by pursuing five objectives:

- Objective 1: Dismantle threat WMD and associated infrastructure,
- Objective 2: Consolidate and secure threat WMD and related technology and materials,
- Objective 3: Increase transparency and encourage higher standards of conduct,
- Objective 4: Support defense and military cooperation with the objective of preventing proliferation, and
- Objective 5: Synchronize CTR activities with related U.S. Government and allied programs.

The Department of Defense (DoD) supports these objectives in partner countries and will support them in additional states as authorized by Congress when the Secretary of Defense, with the concurrence of the Secretary of State, makes the determinations required by law. CTR activities help deny rogue states and terrorists access to WMD and related materials, technologies, and expertise and contribute to stability, cooperation, and expanding U.S. influence in these states and their regions. The Program:

- dismantles strategic weapons delivery systems and infrastructure;
- enhances security and safety of WMD and fissile material during transportation and storage;
- consolidates and secures dangerous pathogens at risk for theft, diversion, accidental release, or use by terrorists;
- enhances partner states’ capacity to develop an early warning system for bioterror attacks and potential pandemics;
- facilitates strategic research partnerships;
- helps prevent proliferation of WMD and related materials; and
- facilitates defense and military contacts to encourage military reform.

CTR Assistance

CTR assistance consists of goods and services provided through U.S. Government contracts by U.S. and non-U.S. enterprises. The contracts are executed, managed, and reviewed in accordance with DoD and Federal Acquisition Regulation requirements.

Funding for CTR assistance totals \$6,772.7 million in obligation authority through FY 2009. In FY 2008, \$410.5 million was obligated. The budget request for FY 2010 is \$404.1 million and the estimated total amount required to achieve Program objectives through FY 2010 is \$7,176.8 million. Programs and projects that require funding beyond FY 2010 will be identified in future CTR Annual Reports.

Figure 1 lists some of the CTR Program accomplishments. Details are provided in the Accounting for Assistance section of this report.

Figure 1: Program-assisted activities

Category	Base-line	FY 2008 Activity	Cumulative Activity	CY 2012 Goal	Percent of Goal
Warheads Deactivated	13,300	107	7,504	8,452	89
ICBMs Destroyed	1,473	61	742	1,110	67
ICBM Silos Eliminated	831	11	496	574	86
ICBM Mobile Launchers Destroyed	442	27	143	267	54
Bombers Eliminated	233	0	155	155	100
Nuclear ASMs Destroyed	906	0	906	906	100
SLBM Launchers Eliminated	728	0	476	544	88
SLBMs Eliminated	936	16	633	728	87
SSBNs Destroyed	48	1	31	35	89
Nuclear Test Tunnels/Holes Sealed	194	0	194	194	100
Nuclear Weapons Train Shipments	N/A	45	422	620	68
Nuclear Weapons Storage Site Security Upgrades	N/A	6	24	24	100
BTR Zonal Diagnostic Laboratories	55	4	16	55	29
CWDF Design (percent complete)	100	.1	99.9	100	99.9
CWDF Construction (percent complete)	100	22.5	79	100	79

Interagency Responsibilities

CTR umbrella agreements establish comprehensive rights, exemptions, and protections for U.S. assistance, personnel, and Program activities. The agreements designate DoD as the U.S. CTR executive agent to negotiate implementing agreements and arrangements and to execute Program activities with the partner country's designated executive agent. Appendix A lists the applicable agreement currently used for each program included in the FY 2010 Plan.

Other executive branch departments pursue related programs; and standard interagency coordination, assisted by the National Security Council staff, ensures that Program activities complement those of other agencies. For example, the Department of State funds the Export Control and Related Border Security Program, which improves partner states' export control capabilities to prevent proliferation of WMD and associated components, technology, and delivery systems. The Department of Commerce, Department of Energy (DOE), Department of Homeland Security's Bureau of Customs and Border Protection, and U.S. Coast Guard help implement the Export Control and Related Border Security Program. DOE's Second Line of Defense Program installs radiation detection systems at ports of entry. The Program's WMD Proliferation Prevention Initiative (WMD-PPI), designed to upgrade partner countries' abilities to detect and interdict trafficking of WMD and related materials, coordinates with these interagency programs and other DoD programs, including the International Counterproliferation Program, which

conducts activities with the Department of Homeland Security's Bureau of Customs and Border Protection and the Federal Bureau of Investigation. Other project areas conduct similar coordination activities as appropriate.

DoD Responsibilities

The Office of the Under Secretary of Defense for Policy, through its CTR Policy Office, provides strategic guidance for the Program's objectives, scope, and direction. The CTR Policy Office conducts long-range planning, provides policy oversight, and negotiates implementing agreements and arrangements. The Under Secretary of Defense for Policy, through the Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction and the CTR Policy Office, is responsible for interaction with Congress, the National Security Council, and other executive branch components and for establishing public affairs policy. The Office of the Assistant to the Secretary of Defense (Nuclear and Chemical and Biological Defense Programs) provides acquisition guidance, implementation oversight, risk reduction, and resource sponsorship for the CTR Program. The Defense Threat Reduction Agency is the Program's implementing agency and responsible for all aspects of program, contract, and funds management.

Accounting for Assistance

Key components of accounting for Program assistance include disciplined acquisition procedures, application of the Federal Acquisition and DoD regulations, and frequent on-site observation by DoD employees and contractors. The Defense Contract Audit Agency performs contract audits and provides accounting services for administration of DoD contracts. The Defense Contract Management Agency provides a wide range of services, including contract administration, invoice verification, and contract closeout support.

In accordance with umbrella and implementing agreements, the United States has the right to examine the use of any material, training, or service provided. Results of the five audits and examinations (A&Es) conducted in FY 2008 are included with the corresponding project narratives. Activities that provide and account for assistance include:

- Rigorous discussion of requirements and site access with partner countries, when possible before work is contracted, to ascertain the scope of the task and possible solutions to foreseeable implementation problems;
- Implementing agreements between the United States and partner countries to convert assumptions or responsibilities into firm, binding commitments;
- Periodic updates of Joint Requirements and Implementation Plans (JRIP) that define mutually acknowledged and agreed upon requirements, assumptions, major milestones, contract approaches, risk assessments, and responsibilities;
- Standardized business processes for development of cost estimates, technical and cost evaluations of contractor proposals, and proactive identification and mitigation of project risks;
- Online management tools for tracking the status of key cost, schedule, and technical performance parameters; key project risks; and contract data submissions by contractors;
- Prohibition of transferring assistance to entities not specifically designated in applicable agreements without written U.S. approval;
- In-house project management and business process training for all CTR Program U.S. Government employees and Advisory and Assistance contract personnel; and

- Compliance with the Defense Acquisition Workforce Improvement Act enabling all personnel to attend Defense Acquisition University and attain appropriate certifications.

Enhancing the Efficiency and Effectiveness of the Program

The FY 2002 NDAA directs DoD to describe the means used to ensure that assistance is fully accounted for, used for intended purposes, and used efficiently and effectively. In FY 2008, 183 management trips were made to develop requirements; negotiate agreements, arrangements, and contracts; monitor contractor performance; resolve program concerns; and verify that the assistance provided was used efficiently and effectively for intended purposes. On-site managers, U.S. representatives, and U.S. contractors regularly submit project status reports. Site visits by the CTR Integrated Services contractor, Raytheon Technical Services Company, LLC (RTSC), to maintain equipment and oversee the transfer of custody process provides additional verification. In FY 2008, on-site CTR Integrated Services teams made 56 visits to project locations and performed 182 maintenance actions. The teams reported that all equipment was available for use and no misuse of assistance was evident. Figure 2 details accountability actions.

Other means include:

- Executive Reviews that enable joint evaluation of assistance, project assumptions, and objectives; clarification of each party's responsibilities; and adjustment of program plans to ensure that U.S. national security interests and resources are protected. Executive Reviews of major programs in Russia were conducted with the four Russian CTR executive agents: Federal Space Agency (FSA), Ministry of Defense (MOD), State Atomic Energy Corporation (SAEC), and the Ministry for Industry and Trade (MI&T). An Executive Review was held with the Ministry of Defense in Ukraine. Executive Reviews were conducted with executive agents of WMD-PPI projects in Azerbaijan and Ukraine and of Biological Threat Reduction (BTR) projects in Azerbaijan, Georgia, Kazakhstan, Ukraine, and Uzbekistan.
- Coordination with the Departments of State, Justice, Agriculture, Health and Human Services, Energy, and Homeland Security; agencies of Canada, the United Kingdom (UK), other Group of Eight countries, donor nations of the Global Partnership; and the European Union to maximize leverage with partner countries and avoid duplication of effort.
- A rigorous requirements review process that translates initial policy guidance into operational requirements before developing an acquisition strategy.
- Incremental development of WMD-PPI and BTR projects that enables DoD to manage risks more effectively, implement projects in phases, field demonstrated capabilities in manageable pieces, and rapidly insert new technologies and capabilities.
- Integrated Product Teams to improve project management. These teams make key project decisions, manage risks, and resolve issues.
- Milestone Decision Authorities to provide senior-level oversight and management controls for each project. They approve acquisition and implementation strategies; resource allocation; program plans; and cost, schedule, and performance baselines.
- On-site project managers where investment is expected to exceed \$50 million. A major responsibility is to develop and monitor progress on a list of activities critical to achieving the project's goals. There are on-site managers for Strategic Offensive Arms Elimination projects; the nuclear weapons Automated Inventory Control and Management

System (AICMS) project; the Chemical Weapons Destruction Facility (CWDF) project in Russia; and for BTR projects in Azerbaijan, Georgia, Kazakhstan, Russia, Ukraine, and Uzbekistan.

- An Earned Value Management System to monitor contractor performance, schedule, and cost efficiency.
- A formal risk management program that provides guidance, processes, training, and supporting tools to identify and mitigate technical, cost, and schedule risks for projects.
- A Key Performance Parameter Tracker Tool that captures project cost, schedule, and performance parameters, enabling managers at all levels to track project status.
- Increased emphasis on systems engineering to balance system solutions with project cost, schedule, and performance parameters throughout the life cycle. A systems engineering toolkit and training materials were developed to ensure consistent use.
- The CTR Program’s annual targets as performance measures.

CTR PROGRAM PERFORMANCE MEASURES ANNUAL TARGETS			
Calendar Year	2008	2009	2010
WMD Means of Delivery Elimination	140	158	188
Cumulative Eliminations	3,674	3,832	4,020
New Railcars to Transport Nuclear Weapons	19	18	18
Cumulative Railcar Deliveries	29	47	65
Nuclear Weapons Site Security Upgrades	8		
Cumulative Upgrades	24		
Biological Zonal Diagnostic Laboratories	7	15	9
Cumulative	19	34	43

Compliance and Accounting Concerns

CTR assistance is fully accounted for and is being used efficiently and effectively for its intended purpose. The Mayak Fissile Material Storage Facility (FMSF) was completed and turned over to Russia in December 2003, and Russia announced that it had commenced loading in July 2006. The Department of State has assumed responsibility for negotiating a legal framework, separate Liability Agreement, and Transparency Protocol that would enable monitoring of the stored material, increasing confidence that only fissile material with agreed attributes of weapons-grade plutonium or enriched uranium is stored at the FMSF. No DoD funds are expended to support these negotiations. Other prior year concerns are detailed in the BTR narrative (6).

Program Activities and Assistance – Includes FY 2010 Implementation Plan and FY 2008 Accounting Activities

Section 1308 Requirements (as amended) Addressed

The Floyd D. Spence NDAA for FY 2001 requires the Secretary of Defense to submit an annual report to Congress on CTR activities. The FY 2010 Annual Report is submitted in accordance with Section 1308 of that Act as amended by Sections 1307 and 1309 of the FY 2002 NDAA, Section 1304 of the FY 2003 NDAA, and Section 1304 of the FY 2005 NDAA. It includes the FY 2008 requirement for “Accounting for CTR Program Assistance to States of the Former Soviet Union.” The “Five-Year CTR Program Implementation Plan” only includes FY 2010 since the Administration has not completed a program and budget review for FY 2011–FY 2015. The following legislative requirements are addressed:

- (1) An estimate of the total amount that will be required to be expended by the United States in order to achieve the objectives of the Cooperative Threat Reduction programs. (See Introduction)*
- (2) A five-year plan setting forth the amount of funds and other resources proposed to be provided by the United States for Cooperative Threat Reduction programs over the term of the plan, including the purpose for which such funds and resources will be used, and to provide guidance for the preparation of annual budget submissions with respect to Cooperative Threat Reduction programs. (See project descriptions and Figure 4)*
- (3) financial commitments for FY 2009 from the international community and from Russia for the Chemical Weapons Destruction Facility located at Shchuch’ye, Russia (See Appendix B);*
- (4) a description of CTR defense and military contact activities carried out during the fiscal year preceding the year of the report (See Defense and Military Contacts project narrative and Figure 3);*
- (5) a descriptive summary, with respect to the appropriations requested for Cooperative Threat Reduction programs for the fiscal year after the fiscal year in which the summary is submitted, of the amounts requested for each project category under each Cooperative Threat Reduction program element (See project descriptions that follow); and*
- (6) descriptive summary, with respect to appropriations for Cooperative Threat Reduction programs for the fiscal year in which the list is submitted and the previous fiscal year, of the amounts obligated or expended, or planned to be obligated or expended, for each project category under each Cooperative Threat Reduction program element (See Figure 4).*
- (7) current description of the tactical nuclear weapons arsenal of Russia (will be submitted under separate cover).*
- (8) a description of how revenue generated by CTR activities in recipient states is being utilized, monitored, and accounted for (See SLBM Launcher Elimination/SSBN Dismantlement project narrative);*
- (9) A description of the Cooperative Threat Reduction activities carried out during the fiscal year ending in the year preceding the year of the report, including –*
 - (A) the amounts notified, obligated, and expended for such activities and the purposes for which such amounts were notified, obligated, and expended for such fiscal year and cumulatively for Cooperative Threat Reduction programs (See project descriptions that follow and Figure 3);*
 - (B) a description of the participation, if any, of each department and agency of the United States Government in such activities (See project descriptions that follow);*
 - (C) a description of such activities, including the forms of assistance provided (See project descriptions that follow);*
 - (D) a description of the United States private sector participation in the portion of such activities that were supported by the obligation and expenditure of funds for Cooperative Threat Reduction programs (See project descriptions that follow);*
 - (E) such other information as the Secretary of Defense considers appropriate to inform Congress fully of the operation of Cooperative Threat Reduction programs and activities, including with respect to proposed demilitarization or conversion projects, information on the progress toward demilitarization of facilities and the conversion of the demilitarized facilities to civilian activities (See project descriptions that follow);*

(10) “A description of the means (including program management, audits, examinations and other means) used by the United States during the fiscal year ending in the year preceding the year of the report to ensure that assistance provided under Cooperative Threat Reduction Programs is fully accounted for, that such assistance is being used for its intended purpose, and that such assistance is being used efficiently and effectively, including:

- (A) if such assistance consisted of equipment, a description of the current location of such equipment and the current condition of such equipment (If the current condition or use of DoD provided equipment is compromised, it is included as an item of concern. A list of locations and values of equipment is maintained at the Defense Threat Reduction Agency and is immediately available for review.);
- (B) if such assistance consisted of contracts or other services, a description of the status of such contracts or services and the methods used to ensure that such contracts and services are being used for their intended purpose (See project narratives for descriptions of services and their status. Methods used to ensure contracts or services are used for their intended purpose are described in the Introduction, and specific actions are described throughout this report.);
- (C) a determination whether the assistance described in subparagraphs (A) and (B) has been used for its intended purpose and an assessment of whether the assistance being provided is being used effectively and efficiently (See Compliance and Accounting Concerns in the Introduction and the follow-up to prior year concerns in the project narratives.); and
- (D) description of the efforts planned to be carried out during the fiscal year beginning in the year of the report to ensure that Cooperative Threat Reduction assistance provided during such fiscal year is fully accounted for and is used for its intended purpose. (FY 2008 A&Es are detailed in the project narratives. A schedule of future audits is in the A&E project narrative. The means detailed in the Introduction will continue to enhance the Effectiveness and Efficiency of the Program.)”

Format

The Implementation Plan and Accounting for Assistance Report is organized by program areas and project categories (referred to as programs and projects). The narratives include a summary of Executive Reviews held in FY 2008; any significant concerns; the FY 2010 Plan, Purpose, and Resources (which includes resources and activities for FY 2009); a Description of Activities Carried Out in FY 2008; and information on A&Es. All activities and assistance are planned or provided for by DoD unless specified otherwise. Figure 2 summarizes activities conducted to ensure that assistance is used effectively and efficiently for its intended purposes; paragraph references are to program areas and project categories unless the activity was completed and is not in the FY 2010 Plan. Figure 3 provides the amounts notified, obligated, and expended for CTR activities in FY 2008 and cumulatively for the CTR Program. Figure 4 identifies proposed funding through FY 2010. Figure 5 provides a summary of funding by objective and Figure 6 identifies project funding by country.

1. Strategic Offensive Arms Elimination

DoD supports destruction of Russia's strategic weapons delivery systems and associated infrastructure in accordance with applicable Strategic Arms Reduction Treaty (START) provisions, including the START Conversion or Elimination Protocol. This assistance remains an incentive for Russia to draw down its Soviet-legacy nuclear forces and reduces opportunities for their proliferation or use. Equipment and services are provided to destroy or dismantle intercontinental ballistic missiles (ICBMs), ICBM silo launchers, road-mobile launchers, submarine-launched ballistic missiles (SLBMs), SLBM launchers, nuclear reactor cores of strategic nuclear-powered ballistic missile submarines (SSBNs), and WMD infrastructure.

Executive Reviews: DoD held two Executive Reviews with FSA (executive agent for destruction of strategic systems other than SSBNs) and SAEC (executive agent for SSBN destruction) in conjunction with Integrated Program Management Reviews. The reviews with FSA updated the JRIP and reviewed assumptions, responsibilities, risks, and schedules. Participants discussed decommissioning and elimination plans for 2008 and 2009, completion of the SS-24 elimination project, results of Russian-funded open detonation testing to support elimination of solid rocket motors (SRMs), construction and use of a high-risk SRM burn stand, allocation of SS-25 SRMs between the two burn stand locations, and status of the SS-N-20 SLBM eliminations. Additional topics included the criteria and scope of DoD assistance when SS-18/19 silos are dismantled vice eliminated, FSA's agreement to assume responsibilities for demilitarization of SS-25 support vehicles, and maintenance of emergency response equipment in 2010.

The reviews with SAEC addressed the Russian government reorganization that established the SAEC; delineation of responsibility among the United States, Canada, and Russia to dismantle SSBNs; dismantlement schedule for *Typhoon*- and *Delta III*-class submarines; and the lack of Russian funding to complete their portion of near-term dismantlement activities.

1.1. Solid Propellant ICBM/SLBM and Mobile Launcher Elimination - Russia

FY 2010 Plan, Purpose, and Resources: DoD will eliminate SS-N-20 SLBMs, SS-25 road-mobile launchers, and SS-25 ICBMs. Plans include decommissioning SS-25 Strategic Rocket Forces regiments. Russia will be responsible for demilitarization of support vehicles after December 2009.

Description of Activities Carried Out in FY 2008: Washington Group International, Inc. eliminated the last six SS-24 missiles, and DoD closed out the SS-24 elimination project. RTSC decommissioned 2 SS-25 regiments, eliminated 38 ICBMs and the elements of 8 additional SS-25 missiles, eliminated 27 SS-25 road-mobile launchers, and demilitarized 92 launch-associated SS-25 support vehicles. DoD disassembled and eliminated four SS-N-20 missiles.

A&E: DoD conducted an A&E of the SS-25 ICBM SRM burn and storage operations at Perm, Russia in September 2008. The team's focus was to determine the ability of the facility to conduct SS-25 SRM burn operations and assess the readiness of equipment planned for transfer from the completed SS-24 project to the SS-25 project. The A&E team concluded that the Perm facility met safety and environmental requirements for SS-25 SRM burn operations. The team was satisfied with the ability of Perm to conduct SS-25 SRM eliminations, the condition of the equipment, and the commitment of Russia not to use the vacant SS-24 ICBM elimination and storage buildings for any other purposes.

1.2. Liquid Propellant ICBM/SLBM Missile and Silo Elimination - Russia

FY 2010 Plan, Purpose, and Resources: This project dismantles and eliminates SS-18 and SS-19 ICBM silos and destroys SS-18 and SS-19 ICBMs and SS-N-18 SLBMs.

Description of Activities Carried Out in FY 2008: DoD eliminated 1 SS-18 ICBM and 17 SS-19 ICBMs. In addition, Russia eliminated 12 SS-N-23 SLBMs using CTR-provided equipment. DoD dismantled 7 SS-18 silos and 21 SS-19 silos and eliminated 11 SS-19 silos.

1.3. SLBM Launcher Elimination/SSBN Dismantlement - Russia

FY 2010 Plan, Purpose, and Resources: DoD plans to eliminate SLBM launchers and dismantle *Delta III*-class and *Typhoon*-class SSBNs. Russia is responsible for completing dismantlement of the bow, sail, and stern sections and transport of spent nuclear fuel to interim storage. DoD provides SSBN towing, SLBM launcher elimination, launcher-compartment dismantlement, spent naval fuel removal, and sectioning and preparation of reactor core compartments for storage afloat. As individual SSBNs are released, DoD will discuss with Canada whether it will support reactor defueling as it did for *Typhoon 724* as well as support for other dismantlement activities.

Description of Activities Carried Out in FY 2008: Dismantlement of *Typhoon 713* was completed, and elimination of the SLBM launchers on *Typhoon 724* was initiated.

Report of Use of Revenue Generated by Activities Carried Out under CTR Programs: The Zvezdochka shipyard finished dismantling SSBN *Typhoon 713* in July 2008. The shipyard reported that 14,390 tons of metal scrap generated approximately \$3.8 million. SAEC's January 2007 report stated that, "in accordance with Russian legislation, funds received from the sale of materials recovered from dismantled nuclear submarines are deposited into an account specifically for these proceeds" and "can be used only for tasks related to dismantling nuclear submarines." The report states that these funds finance work not performed with DoD money, including pre-sale preparation of scrap, formation of reactor blocks from nuclear submarines, towing of reactor blocks, handling of spent naval fuel, and related tasks.

2. Strategic Nuclear Arms Elimination

DoD supports the safe storage of 160 SRMs from dismantled SS-24 ICBMs and provides funding for empty motor cases after the propellant is removed by Ukraine.

Executive Review: The Executive Review resulted in agreement on the JRIP and reviewed assumptions, responsibilities, risks, and schedules. Participants discussed Ukraine's efforts to complete the water washout facility and begin SRM washout operations.

2.1. SS-24 Missile Disassembly, Storage, and Elimination - Ukraine

FY 2010 Plan, Purpose, and Resources: DoD will support environmentally controlled, safe storage of the remaining 160 SRMs, movement of SRMs within and between storage areas, and elimination of empty motor cases. Ukraine will finance construction and operation of a full-scale water washout facility to remove and eliminate the propellant from the 160 SRMs. DoD will provide fixed-fee payments for the empty motor cases.

Description of Activities Carried Out in FY 2008: Washington Group International supported the safe storage of 160 SRMs and paid for 3 empty (water washed-out) motor cases.

3. Chemical Weapons Destruction

DoD is assisting Russia with safe, secure, and environmentally sound destruction of the portion of its chemical weapons nerve-agent stockpile most vulnerable to proliferation. The Shchuch'ye CWDF project supports this effort. In May 2007, DoD and the Russian Federal Agency for Industry agreed to a trilateral acquisition strategy by which prior year funds would be provided, through a U.S. contracted agent, to Russian contractors to complete the facility to destroy organophosphorus (nerve) agent-filled munitions. This arrangement is codified in the Joint Arrangement between the Department of Defense of the United States of America and the Federal Agency for Industry Concerning the Completion of Construction of the Russian Chemical Weapons Destruction Facility Shchuch'ye Area, Kurgan Region. Russia recently replaced the Federal Agency for Industry with MI&T as the executive agent for chemical weapons elimination.

Executive Reviews: Two Executive Reviews with MI&T focused on the status of implementing the trilateral agreement, the status of U.S. oversight activities, construction progress, and mitigation of risks associated with transitioning from U.S. oversight to Russian operations.

A&E: In March 2008, an A&E was conducted at Russia's Planovy chemical weapons storage facility. The team inspected equipment and observed operational demonstrations of the perimeter fence and associated lighting, anti-ram barrier, back-up generator, security sensors, closed-circuit televisions, and mini chemical agent monitors throughout the facility. All equipment appeared to be in good working order, and personnel effectively demonstrated operator knowledge.

3.1. Chemical Weapons Destruction Facility - Russia

FY 2010 Plan, Purpose, and Resources: With FY 2008 and prior year funds, DoD will oversee MI&T's completion of CWDF construction at Shchuch'ye and verify work completed during site visits. Parsons Global Services, Inc. will manage the invoicing and payment process through their designated agent, Vneshstroyimports. In-country program management staff includes individuals from the Defense Threat Reduction Agency, the U.S. Army Corps of Engineers, and Parsons.

Description of Activities Carried Out in FY 2008: Parsons completed the boiler house construction and process line and supporting equipment procurements. DoD validated work valued at more than \$150 million that was completed by the MI&T Russian contractors.

4. Nuclear Weapons Storage Security

This program supports proliferation prevention by enhancing the security systems of nuclear weapons storage sites using mutually agreed intrusion detection standards as a basis for design. For nuclear weapons storage sites in Russia, DoD is authorized to make three visits to each site where security upgrades are being installed. These visits occur at initiation of site upgrade to verify the vulnerability assessment, at approximately the 50 percent completion point, and following site acceptance to verify that security systems are installed and functioning as required. In addition to the site visits, DoD is allowed to audit equipment through alternative means, including data on locations of equipment, *in situ* photographs, documentation, examination of sample equipment, and MOD letters attesting that equipment is being used as intended.

Executive Reviews: Two Executive Reviews in conjunction with Program Management Reviews were held with MOD, Russia's executive agent responsible for security of nuclear weapons in storage and during transport. Agenda items included amendments to all implementing agreements and storage and transportation security assumptions and responsibilities. The major implementation issues addressed were progress of each project listed in the JRIP, barriers to completing security enhancements, and the Far East Training Center work schedule. The status of the AICMS project and Nuclear Weapons Transportation Security was also discussed.

4.1. Site Security Enhancements – Russia

FY 2010 Plan, Purpose, and Resources: This project in coordination with DOE is completing a set of regional training and logistics centers and developing a cadre of MOD personnel to operate, maintain, and support the security system upgrades. It also sustains security enhancements at five MOD temporary nuclear weapons storage sites (rail transfer points) controlled by Russia's 12th Main Directorate, the personnel reliability program, and the small arms training system previously provided to MOD. Sustainment includes maintenance, spares, and training. Under the Bratislava Nuclear Security Initiative, DoD and DOE accelerated completion of nuclear security work and enhanced security systems at all requested locations that store strategic, non-strategic, or tactical nuclear weapons, including those waiting to be eliminated. DoD upgraded its 24 sites by December 31, 2008 with prior-year funds.

Description of Activities Carried Out in FY 2008: RTSC completed upgrades at six sites (two rail transfer points and four small permanent nuclear weapons storage sites) and continued upgrades at six additional sites (three small and three large permanent nuclear weapons storage sites). In addition, RTSC commenced sustainment for three rail transport points and the Security Assessment and Training Center. Forty armored transport vehicles were procured and delivered.

4.2. Far East Training Center – Russia

FY 2010 Plan, Purpose, and Resources: This project will establish a Far East Training Center in FY 2009 with FY 2008 and prior year funds. The Training Center will support the operators, maintainers, and system administrators of upgraded physical security equipment and be a regional depot-level maintenance facility for security equipment.

Description of Activities Carried Out in FY 2008: The majority of building construction and infrastructure enhancements (heating and power) was completed.

4.3. Automated Inventory Control and Management System – Russia

FY 2010 Plan, Purpose, and Resources: Using FY 2008 and prior year funds, this project will enhance the automated inventory system for tracking and cataloging of nuclear weapons to be eliminated. It will construct new AICMS facilities at 13 additional sites and provide a technological refresh of the hardware and software for the existing 20 automated inventory systems, a one-year warranty for hardware and software for all 33 systems, and new system training. This project will be completed in FY 2009.

Description of Activities Carried Out in FY 2008: Black and Veatch Special Projects Corporation (BVSPC) completed construction of 3 of 13 new facilities and the technological refresh of the hardware and software at 15 of 20 existing facilities. BVSPC completed software development and demonstrated interoperability of AICMS software databases.

5. Nuclear Weapons Transportation Security

This program supports proliferation prevention by enhancing the security and safety of nuclear weapons during shipment.

5.1. Nuclear Weapons Transportation – Russia

FY 2010 Plan, Purpose, and Resources: This project assists MOD in shipping nuclear warheads to dismantlement locations or more secure storage sites pending dismantlement. It complies with U.S. policy against assisting modernization of Russia's strategic forces and supports nonproliferation by ensuring that nuclear warheads are transported from operational sites to dismantlement facilities or storage sites and from storage sites to dismantlement facilities. Shipments average four per month and will continue through 2012.

Description of Activities Carried Out in FY 2008: RTSC supported 45 train shipments.

5.2. Railcar Maintenance and Procurement – Russia

FY 2010 Plan, Purpose, and Resources: This project will procure up to 100 heated cargo railcars to replace existing railcars at the end of their service life. MOD will destroy two old cargo railcars for each new railcar built. Oak Ridge National Laboratory will manage procurement of the railcars and the Railcar Consist Security System (RCSS). DoD will procure satellite transmitters and antennas for 15 DoD-provided railcars as components of an off-train communications system. The satellite communication supports a near real-time capability to monitor location and alarm-system status from the MOD headquarters facility. This project also supports depot- and capital-level maintenance for the cargo railcars to ensure compliance with Russian railway certification requirements.

Description of Activities Carried Out in FY 2008: RTSC provided scheduled maintenance on 101 cargo railcars. The prototype RCSS was demonstrated and accepted. Vendors were selected to produce the satellite communication system and to integrate the off-train communication elements with the cargo cars and RCSS. The first 19 cargo railcars with RCSS installed were delivered, and production of the next 23 cargo railcars began. The destruction of 38 old cargo cars was verified.

6. Biological Threat Reduction

The program objectives are to prevent proliferation of BW-related materials, technologies, and expertise and to combat bioterrorism. DoD establishes disease baselines to determine especially dangerous pathogen prevalence; enhances partner countries' capacity to consolidate and secure dangerous pathogen collections into safe, secure national-level laboratories and to detect, diagnose, and report bioterror attacks and potential pandemics; improves the safety and security of biological facilities involved in threat agent detection and response and research efforts; engages scientists with BW-related expertise in mutually beneficial research; and destroys former BW facilities and related infrastructure. This program promotes sustained transparency and the formation of strategic partnerships in the war on bioterrorism.

DoD has implementing agreements for the BTR program with Azerbaijan, Georgia, Kazakhstan, Ukraine, and Uzbekistan and is negotiating one with Armenia. The International Science and Technology (ISTC) Agreement and the ISTC Funding Memorandum of Agreement govern all BTR efforts in Russia. Bechtel National, Inc., RTSC, and BVSPC are the integrating contractors for all BTR projects. DoD contracts with Bechtel National, Inc. for work in

Azerbaijan, Georgia, Kazakhstan, and Uzbekistan and with RTSC for work in Azerbaijan, Russia, and Ukraine. In July 2008, DoD established a contract with BVSPC for work in Ukraine. BTR develops a Country Science Plan and Threat Agent Detection and Response concept of operations for each partner country to harmonize the BTR mission, existing projects, and research agenda. The plans are reviewed to determine which elements are eligible for DoD assistance and which elements the partner country or other sources must fund. The plans are periodically updated to reflect changing research needs.

DoD efforts are coordinated with other U. S. Government agencies, partner governments, and international programs to maximize biological threat reduction resources. DoD works to create in-country working groups that establish strong lines of communication with other organizations working on similar issues, including the Departments of State, Agriculture, and Health and Human Services, U.S. Agency for International Development, World Health Organization, World Bank, Japan International Cooperation Agency, Rostropovich-Vishnevskaya Foundation, Food and Agriculture Organization of the United Nations, Ministry of Defense of the United Kingdom, Canadian Global Partnership Program, ISTC, and Science and Technology Center in Ukraine.

BTR facilitates international scientific collaboration on specific projects to ensure high quality research, establish long-term sustainable working relationships, and leverage available resources. U.S. collaborators, who work with the partner scientists on site, include the Department of Agriculture, Centers for Disease Control and Prevention, Walter Reed Army Institute of Research, Naval Medical Research Center, U.S. Army Medical Research Institute of Infectious Diseases, Armed Forces Research Institute of Medical Sciences, Armed Forces Institute of Pathology, Naval Medical Research Unit-3, and academic collaborators from Louisiana State University, New Mexico State University, Arizona State University, University of Maryland, Pennsylvania State University, University of Florida, and Texas A&M University.

Executive Reviews: Executive Reviews were held in Azerbaijan, Georgia, Kazakhstan, Ukraine, and Uzbekistan. Each occurred in conjunction with a Program Management Review where implementation issues were discussed.

The Executive Review in Azerbaijan addressed staffing plan updates and compensation and retention issues of BTR-trained personnel. Another key topic was developing warehousing and distribution capability for BTR equipment, materials, and supplies. Development of a detailed Construction Management and Oversight Plan for the Azerbaijan-financed Central Reference Laboratory (CRL) and a plan for financial support of operations and sustainment after U.S. Government assistance ends also were discussed. Topics discussed with Georgia included management planning and staffing for the CRL and planning for Test and Evaluation of the Interim Operational Capability of the Threat Agent Detection and Response system. In Ukraine, topics included engagement of newly added veterinary executive agents, impacts of poor structural conditions and site permitting delays at the interim human health CRL, site selection for the permanent human CRL, and pathogen consolidation. The major topic in Uzbekistan was negotiation of the implementing arrangement under the CTR Umbrella Agreement. The Kazakhstan Executive Review addressed the ongoing need for Kazakhstan to provide value added tax (VAT) exemption and ratify the December 13, 2007, extension amendment of the CTR Umbrella Agreement.

Unresolved Prior Year Concern: Russia continues to defer entering into an agreement on biological threat reduction. BTR implementation is under a Memorandum of Agreement between the United States and the ISTC, which provides the necessary protections, exemptions, and A&E rights. DoD limits its engagement to the continuation of smallpox research and select biosecurity and biosafety projects, but the smallpox projects remain stalled due to lack of Russian Ministry of Health's approval. DoD continues to receive good cooperation at the scientific level and from the Ministry of Agriculture. Thus, DoD is exploring ways to further its partnership with the Ministry of Agriculture in biosecurity and disease surveillance and will continue to seek opportunities for joint efforts to reduce biological threats.

Unresolved Prior Year Concern: In July 2005, DoD raised the concern that some funding provided to the ISTC for Russian projects was subject to VAT. In April 2007, a joint decree by Russia's Ministries of Foreign Affairs and Finance listed legal entities including ISTC eligible for zero VAT rate. The ISTC is assessing how to apply for retroactive reimbursements back to January 2001.

Unresolved Prior Year Concern: Kazakhstan did not grant the guaranteed exemptions in the CTR Umbrella Agreement, especially to assistance provided under the BTR program. However, on December 13, 2007, the two governments added language to the CTR Umbrella Agreement via amendment to facilitate Kazakhstan's ability to guarantee such exemptions. On October 15, 2008, the President of Kazakhstan formally accepted the December 13, 2007, extension amendment, and the two governments are working to ensure exemptions are provided.

6.1. Biosecurity, Biosafety, Threat Agent Detection and Response

FY 2010 Plan, Purpose, and Resources: Through this project, DoD and partner countries consolidate and secure collections of dangerous pathogens and are developing a network of disease surveillance and diagnostic laboratories at the national, regional, and district levels that are linked with an Electronic Integrated Disease Surveillance System to facilitate rapid reporting of outbreak data to national authorities and U.S. Government counterparts. These systems facilitate countries meeting their commitments to comply with the World Health Organization and the World Organization for Animal Health requirements to report disease outbreaks within 24 hours. A second electronic database, the Pathogen Asset Control System, inventories and controls access to pathogens. Eventually, partner countries' networks will link with regional partners to enhance disease monitoring, reporting, and containment and ensure early warning of potential bioattacks and pandemics. DoD, working with the Centers for Disease Control and Prevention and DoD laboratories, conducts training to improve diagnostic and epidemiological capabilities of the scientific and technical staff; promote bioethics, biosafety, and biosecurity; and emphasize sustainment, effectiveness, program investment, and strategic relevance.

This project develops national-level laboratories with state-of-the-art diagnostic capabilities, research resources, and modern communications. These laboratories support existing national response teams with enhanced diagnostic and epidemiological capacity for rapid response to infectious disease outbreaks. The national-level laboratories also support veterinarians and clinicians who conduct population-based surveillance in areas where especially dangerous pathogen cases may occur. The regional level Zonal Diagnostic Laboratories (ZDLs) have the capability to survey suspicious disease outbreaks, analyze epidemics, and collect disease reports from veterinarians, clinicians, and epidemiologists.

Description of Activities Carried Out in FY 2008: In Russia, DoD provided technical oversight for biosecurity and biosafety upgrades at Golitsino, Pokrov, Vector, Kazan, and Vladimir. At Golitsino, laboratory equipment was procured, and greenhouse modifications were completed. At Pokrov, biosafety and biosecurity upgrades continued. Laboratory design work was completed at Vector; laboratory safety and security design work progressed at Kazan and Vladimir.

Based on a pending BTR Implementing Agreement with Armenia, plans were made to conduct a tabletop exercise to test the country's system to detect, report, and respond to an outbreak of anthrax. Planning began for a comprehensive analysis and assessment of Armenia's disease detection and reporting network.

In Azerbaijan, renovation, installation, and initial training at the interim human CRL at the Republican Anti-Plague Station and detailed design for the permanent CRL at Baku continued. An analysis of alternatives and design of 10 ZDLs began. The Electronic Integrated Disease Surveillance System was installed and tested at 16 sites.

In Ukraine, a ZDL at the Central Sanitary-Epidemiologic Station in Kyiv was completed, and procurement of equipment for a ZDL at the Oblast Sanitary-Epidemiologic Station in Odesa continued. The detailed engineering design for the interim human CRL at the Ukrainian Research and Anti-Plague Institute in Odesa was completed. A plan to enhance security at the Lviv Scientific Research Institute of Epidemiology and Hygiene was approved.

In Georgia, construction began on the third and final veterinary ZDL in Akhaltsikhe. The concrete superstructure of the CRL in Tbilisi was completed; and installation of interior and exterior architectural finishes, plumbing, HVAC, and other internal systems continued. DoD continued to address the Georgian proposal to establish the CRL as a joint United States-Georgia laboratory.

In Uzbekistan, construction of the first joint human-veterinary ZDL was completed in Karshi.

In Kazakhstan, construction of the ZDL at Uralsk-Anti Plague Station was completed, and construction of ZDLs at Kazakh Science Center for Quarantine and Zoonotic Diseases and the Research Institute for Biological Safety Issues commenced.

A&E: In July 2008, a team assessed the equipment and training at the National Veterinary Center in Astana, Kazakhstan to confirm intended use and operational readiness. Installed laboratory equipment was satisfactory but did not appear to be used to full capacity; a cross-functional utilization of lab space was apparent. Biological security systems and procedures met expectations, although some equipment was not routinely used. An assessment of training records and laboratory practices indicated a lack of training was the cause. Equipment training will continue to be a focus of BTR in Kazakhstan.

A&E: In April 2008, a team assessed the biosafety and biosecurity project at the Uzbekistan Scientific and Veterinary Research Institute in Samarqand. The team tested the alarm system and the back-up power generation system, reviewed security system capabilities, and inventoried specific pieces of equipment. The team confirmed the biosafety equipment was in good working order and used for its intended purpose through procedural-based interviews with site personnel.

6.2. Cooperative Biological Research

FY 2010 Plan, Purpose, and Resources: This project supports research and engages scientists with threat-agent expertise to enhance epidemiological and diagnostic capacity and advance DoD and partner countries' understanding of endemic especially dangerous pathogens. It also supports the transfer of copies of dangerous pathogens to the United States to improve diagnostics and therapeutics. Cooperative Biological Research (CBR) encourages high standards of openness, ethics, and conduct by scientists and establishes strategic research partnerships that support the global fight against bioterrorism. The U.S. Government interagency vets each project prior to approval. Seven approved CBR projects by country are:

Georgia: The Ecology, Genetic Clustering, and Virulence of *Yersinia pestis* Strains Isolated from Natural Foci of Plague; Isolation, Distribution, and Biodiversity of Selected Vibrios and Their Bacteriophages from Aquatic Environments; and Clinical, Epidemiologic, and Laboratory Based Assessment of Brucellosis.

Kazakhstan: The Epidemiological Surveillance of Crimean-Congo Hemorrhagic Fever Virus and Hemorrhagic Fever Viruses with Renal Syndrome; An Ecological Study of Various Biotypes of *Brucella* within Five Regions (South Kazakhstan, Almaty, Zhambyl, Kyzylorda, and east Kazakhstan Oblasts) Bordering on Central Asian Nations and China; and Epizootiological Monitoring and Biological Characterization of the Avian Influenza Virus.

Uzbekistan: Epidemiological Surveillance of Human and Animal Brucellosis

Nine proposals are in the final stages of development: Clinical, Epidemiologic, and Laboratory Based Assessment of Brucellosis in Azerbaijan; Mapping Especially Dangerous Pathogens in Azerbaijan; Development of a Comprehensive Diagnostic Approach to Fevers of Unknown Origin; Active Surveillance of Especially Dangerous Pathogens in the Southern Caucasus Region; Genetic Peculiarities of Strains of Especially Dangerous Zoonotic Pathogens in Kazakhstan; The Distribution of Animal Reservoirs of Plague, Rickettsia, and Tick Borne Encephalitis in Novel Habitats of Uzbekistan; Ecological and Virological Study of Arbovirus Infections in the South Aral Region of Uzbekistan; Evaluation of Arthropod-borne Infections in Ukraine; and Mapping of Especially Dangerous Pathogens in Ukraine.

The first CBR project with Armenia, Mapping of Especially Dangerous Pathogens, is pending approval.

The three projects with Vector concerning protection against smallpox were suspended because of the requirement for U.S. oversight. Revised oversight requirements were submitted to ISTC and the Ministry of Health, and DoD is awaiting Russia's concurrence before starting these projects. One project from Kazakhstan, Research on a New Highly Immunogenic Strain from *Francisella tularensis*, Subspecies *mediaasiatica*, a Candidate for Human Vaccine, was suspended until strains are transferred. One project from Uzbekistan, Evaluation of the Vaccinal Strain "Nevsky 13" of *Brucella melitensis*, has also been suspended pending strain transfer.

Four projects were completed: The Magnetometric Immunosensor for Multi-Pathogen Continuous Monitoring in Russia; Ecological and Socio-Economic Factors of Anthrax Foci Activity and Improvement of its Diagnosis and Prophylaxis in Kazakhstan; Development of a Viral Diagnostic Facility in Uzbekistan; and Epizootiological, Epidemiological Monitoring of Anthrax, Plague, and Tularemia in the Republic of Uzbekistan.

Description of Activities Carried Out in FY 2008: CBR engaged 400 scientists at 16 different institutes. Partner country scientists, in collaboration with U.S. colleagues, made 18 presentations at international conferences and published 4 articles in peer-reviewed journals. Researchers published “Simple method for production of randomized human tenth fibronectin domain III libraries for use in combinatorial screening procedures” in the international peer-reviewed journal *BioTechniques*. Plague-causing bacteria in Georgia were characterized and compared to U.S. strains. The resulting article, “Characterization of *Yersinia pestis* isolates from natural foci of plague in the Republic of Georgia and their relationship to *Y. pestis* isolates from other countries,” was published in *Clinical Microbiology and Infection*. Researchers in Uzbekistan published two articles: “Assay for and replication of Karshi (mammalian tick-borne flavivirus group) virus in mice” in *American Journal of Tropical Medicine and Hygiene* and “A multiplexed real-time quantitative RT-PCR assay for arthropod-borne flaviviruses” in *Journal of Virological Methods*. Researchers in Georgia submitted a manuscript titled “Detection of toxigenic *Vibrio cholerae* 01 in freshwater lakes of the former Soviet Republic of Georgia” to an international peer-reviewed journal.

In Kazakhstan, an assessment of the prevalence of avian influenza in wild bird populations identified eight isolates of low pathogenic avian influenza that were similar to neighboring strains found in Russia and China. The Kazakhstan Ethics Committee approved inclusion of tick borne encephalitis virus to the study of especially dangerous viral pathogens, which was already tracking Crimean-Congo hemorrhagic fever and hemorrhagic fever with renal syndrome in Kazakhstan. In addition, Brucellosis, a bacterial disease that may cause important health and economic issues, is being studied in Kazakhstan as well as in Azerbaijan, Georgia, and Uzbekistan.

DoD and the University Strategic Partnership, led by the University of New Mexico and Pennsylvania State University, renewed their contract to recruit visiting scientists. The partnership with several active scientists provides scientific reach back support, recommendations for follow-on projects to promote sustainability in the engaged FSU institutes, and conducts bio-immersion training.

U.S. contractors support development and execution of projects with partner country institutes, visiting the institute sites approximately 10 days per month. Contractors assess the scientific relevance and credibility of work; provide environmental analysis; and assist with design, safety, and implementation.

7. Weapons of Mass Destruction Proliferation Prevention Initiative

This program addresses the vulnerability of selected partner countries to trafficking of WMD and related components. Currently, DoD assists Azerbaijan, Kazakhstan, and Ukraine to develop functional, self-sustaining, multi-agency capabilities to prevent the proliferation of materials, components, and technologies across their borders. DoD seeks commitments from partners to report detections made with U.S.-provided equipment to the U.S. embassy in their country. Projects are executed incrementally and do not proceed until successful implementation of a previous stage to provide flexibility and management control while minimizing program risk. Projects are leveraged with other U.S. and international programs to avoid duplication of effort.

The radiation portal monitoring project in Uzbekistan, which provided radiation portal monitors and associated radiation detection and communications equipment at key ports of entry, was completed in FY 2008 with the design, assembly, and transfer of three mobile monitors to the State Customs Committee. Uzbekistan now has radiation detection coverage of 81 percent of

all incoming and outgoing international traffic through ports of entry. DOE's Second Line of Defense program assumed sustainment of the monitors for three years. Attempts to engage the State Border Guard to strengthen WMD detection and interdiction capability for border areas between ports of entry were unsuccessful.

The Caspian Sea Maritime Proliferation Prevention project in Kazakhstan was intended to provide a WMD detection and interdiction capability for its Caspian Sea maritime border and adjacent waters. Due to a number of difficulties and challenges, including limited legal authority of the Maritime Border Guard, inconsistent participation in training sessions, and lack of communication and transparency, this project was completed in FY 2008 with renovation of two classrooms with computer-based training modules by RTSC, and training, including boarding operations on one fishing vessel, by Unitech.

Executive Reviews: Executive Reviews were conducted in Azerbaijan and Ukraine. Both the Azerbaijan Coast Guard and Navy agreed to future project plans and to continue development of a concept of operations for a joint WMD proliferation prevention mission. Discussions with Ukraine focused on providing radiation detection equipment to Customs and Border Guard units as well as plans to continue C3/surveillance efforts. This was the first in-depth engagement with the Customs Service, which agreed to establish a joint working group to address mission needs and requirements.

7.1. Land Border and Maritime Proliferation Prevention – Ukraine

FY 2010 Plan, Purpose, and Resources: This project is developing a comprehensive WMD detection and interdiction capability for Ukraine's border with Moldova, including land areas between ports of entry and waterways forming part of the border. Suites of system equipment developed in the test bed will be installed in other sectors of the border in increments. The project is coordinated with DOE's Second Line of Defense Program and other U.S. Government and international agencies, including the European Union, which is currently engaged in border monitoring activities at ports of entry in Moldova and Ukraine. In FY 2009, limited assistance will be provided to the State Border Guard Service for the Chernobyl Exclusion Zone patrol area.

The maritime activity supports Ukraine's development of a comprehensive capability to detect and interdict WMD and related materials along its maritime border and adjacent Black Sea waters, including the Sea of Azov. The project enhances maritime surveillance; upgrades infrastructure and vessels; provides detection and vessel-boarding equipment; and enhances command and control, communications, and data-storage capabilities.

Description of Activities Carried Out in FY 2008: Development of a land border surveillance architecture and command and control systems continued. RTSC completed construction and testing of the initial test bed surveillance system, including radar and ground sensors, and began adapting the system's design to additional sectors of the border with Moldova. DoD led an assessment of the Chernobyl Exclusion Zone patrol area of the State Border Guard Service.

DoD provided WMD detection and interdiction capabilities to the maritime test area and developed plans to provide proven capabilities to other areas. DoD completed patrol vessel upgrades that included new surveillance and monitoring equipment, diesel generator upgrades, and rigid hull inflatable boats and related equipment. DoD continued installation of a new shore-based maritime surveillance system in the Odesa region. The State Border Guard Service and

DoD also agreed on specific capability upgrades for the next increment of assistance with a focus on the Crimean Peninsula, particularly the Kerch Strait between Ukraine and Russia.

A&E: In June 2008, an A&E team visited eight Border Service training sites to assess the impact of computer-based training provided to the State Border Guard Service and State Customs Service. The team found that this training is having a positive impact on both projects. The services lauded the training for ease of use and retention of information by the students.

7.2. Caspian Sea Maritime Proliferation Prevention – Azerbaijan

FY 2010 Plan, Purpose, and Resources: This project is assisting Azerbaijan’s State Border Guard-Coast Guard and Navy to develop a comprehensive capability for WMD surveillance and interdiction on Azerbaijan’s Caspian Sea border. It is improving maritime surveillance equipment and procedures; repairing and upgrading selected vessels; providing equipment for boarding crews, including WMD-detection devices; constructing, repairing, or upgrading command and control, maintenance, and logistics facilities; and providing related training systems. This maritime border project should be completed by FY 2010.

Description of Activities Carried Out in FY 2008: Repairs on the final two of five patrol vessels continued. Washington Group International completed construction of a new maritime surveillance radar site on Chilov Island that will be operated by the Navy with data links to the State Border Service-Coast Guard and the Navy’s Command and Control Centers.

7.3. Fissile and Radioactive Material Proliferation Prevention – Kazakhstan

FY 2010 Plan, Purpose, and Resources: As in the past, the CTR Policy Office is prepared to provide an update to congressional staff.

Description of Activities Carried Out in FY 2008: Congressional staff briefed.

7.4. Expanded Proliferation Prevention

FY 2010 Plan, Purpose, and Resources: DoD can implement new projects following a U.S. Government-coordinated approval decision. Factors considered include the proliferation threat, political situation, evolving relations with partner countries, signature of necessary agreements, and the assessment of related U.S. and international efforts.

Description of Activities Carried Out in FY 2008: None.

8. Defense and Military Contacts (DMC)

This program promotes U.S. and DoD-specific objectives through conferences, information exchanges, familiarization visits, traveling contact teams, and combined military exercises. These bilateral events engage military and defense officials in activities that promote demilitarization, regional stability, counter-proliferation, and defense reform; build security cooperation with the Eurasian states; and promote exchanges that enhance interoperability with U.S. and NATO forces for multinational operations.

Activities in Russia attempt to stem proliferation of its chemical, biological, and nuclear weapons and related technology. In other states, including Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan, activities increase United States access and cooperation in the region by strengthening defense partnerships. These partnerships support DoD’s security cooperation goal of building defense relationships that promote specific U.S. security interests.

DMC activities are approved by the Office of the Assistant Secretary of Defense for International Security Affairs and the Office of the Assistant Secretary of Defense for Asian and Pacific Security Affairs, in coordination with the Combatant Commands, to ensure that events support the Guidance for the Employment of the Force, DoD Policy and Responsibilities Relating to Security Cooperation, and Geographic Combatant Commands' country and regional campaign plans.

FY 2010 Plan, Purpose, and Resources: Events will include bilateral defense consultations between the Office of the Secretary of Defense and partner Ministers of Defense, working-level exchange visits between Combatant Command staffs and Eurasian-states counterparts, and consultative staff talks between U.S. Combatant Commanders and Eurasian military leaders. To support counter-proliferation goals, the DMC program will sponsor combined exercises and traveling contact teams. In support of counterterrorism objectives, the program sponsors events such as military police familiarization exchanges and anti-terror contact teams. The multi-year personnel reform effort to assist and encourage Eurasian nations to build on their progress in reforming Soviet-legacy defense institutions will continue.

Description of Activities Carried Out in FY 2008: More than 128 events were conducted, including bilateral defense consultations with Azerbaijan, Georgia, Kazakhstan, Moldova, and Ukraine; consultative staff talks with Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan; counterproliferation and counterterrorism exercises with Kazakhstan, Kyrgyzstan, and Tajikistan; military/civil disaster response coordination program exchanges with Georgia, Tajikistan, and Ukraine; naval capabilities development team visit to Azerbaijan; and National Guard State Partnership Program familiarization and contact visits between eligible nations and partner countries. The DMC program also supported key DoD and U.S. Combatant Command regional security initiatives in the Black Sea, Caucasus, Caspian Sea, and Central Asia regions.

9. New Initiatives

FY 2010 Plan, Purpose, and Resources: Using FY 2008 and FY 2009 funds this program may facilitate the elimination, safe and secure transportation, and storage of nuclear, biological, or chemical weapons, materials, weapons components, or weapons-related materials and non-proliferation of nuclear, chemical, or biological weapons, weapons components, and weapons-related military technology and expertise. In this program, DoD initially will focus on a partnership with Afghanistan's Ministry of Public Health and Ministry of Agriculture, Irrigation, and Livestock to install a disease detection, diagnosis, and reporting capability linked to the capital from eight regional sites in Afghanistan. Separately, CTR will build on current counternarcotics efforts on Afghanistan's borders by training and equipping border forces to detect WMD. This program also supports a broader United States effort to work with partner countries to enhance biosafety, biosecurity, and disease detection, diagnosis, and reporting in Pakistan and select areas of Africa.

Description of Activities Carried Out in FY 2008: DoD funded the National Academy of Sciences to conduct two studies for the CTR program. These studies will identify potential initiatives and areas for additional biological, chemical, and nuclear cooperation. DoD met with the Minister of Public Health of Afghanistan and participated in interagency efforts to develop an integrated strategy to respond to the Government of Afghanistan's request for assistance to improve biosafety, biosecurity, and disease surveillance. DoD also approved participation in a

study of Afghanistan's Customs Department to assess their WMD detection and interdiction capabilities.

10. Other Assessments/Administrative Support

Other Program Support assists the overall implementation of the Program in areas not unique to established projects, such as negotiations on an implementing agreement. It includes the A&E program and overall program management and administration.

10.1. Audits and Examinations

FY 2010 Plan, Purpose, and Resources: The goal of A&Es is to ensure that CTR assistance is accounted for and used efficiently and effectively for its intended purpose. In accordance with umbrella and implementing agreements, the United States has the right to examine the use of any material, training, or other services provided under these agreements for a period up to three years following expiration of the umbrella agreements with Albania, Armenia, Azerbaijan, Georgia, Kazakhstan, Moldova, Russia, and Uzbekistan. In Ukraine, A&Es may be performed until expiration of the United States-Ukraine CTR Umbrella Agreement. Through FY 2008, the United States has conducted 184 A&Es in the partner countries.

Description of Activities Carried Out in FY 2008: DoD conducted five A&Es: two in Russia and one each in Kazakhstan, Ukraine, and Uzbekistan. Five A&Es were canceled or postponed. Two in Russia were postponed pending completion of project biosecurity upgrades. The Uzbekistan WMD-PPI A&E was canceled when the project was completed and the partner country discontinued cooperation. The Georgia BTR A&E was postponed due to security considerations, and the Azerbaijan BTR A&E was postponed one year due to project maturity.

Accounting Activities for FY 2009: DoD plans to conduct up to eight A&Es in FY 2009. In Russia, the teams will review assistance to the Chemical Weapons Destruction program, conduct inspections of the Nuclear Weapons Storage Security program, and review biosafety and biosecurity upgrades at Pokrov and Golitsino. A&E teams will also assess WMD-PPI assistance in Azerbaijan and Ukraine and BTR program efforts in two countries to be determined.

10.2. Program Management/Administration

FY 2010 Plan, Purpose, and Resources: Program management and administration support general activities that are not specific to an established project. Such activities include initial development of project technical requirements before implementing agreements are signed, team travel, translation and interpretation, Advisory and Assistance Services, Intergovernmental Personnel Act employees, and Defense Threat Reduction Offices at U.S. embassies in partner countries.

Description of Activities Carried Out in FY 2008: Advisory and Assistance Services were provided by the Threat Reduction Support Center. The center is comprised of a team of 15 contractors with Science Applications International Corporation as the prime contractor. Assistance included scientific, engineering, and technical expertise; acquisition support (requirements development, scope definition, independent cost estimate preparation, technical and analytical support for source selection, contract monitoring/earned value management and contract close-out); logistics, transportation, and export control expertise; document preparation (drafting of issue papers, briefings, and reports for senior management); financial management; and planning, programming, budgeting, and execution expertise.

Figure 2: Program accountability actions for FY 2008

Par Ref	Program/Project	A&Es	DoD Trips	CIS Visits	Maint. Actions	On-Site Support
1.	Strategic Offensive Arms Elimination		2			
1.1	Solid Propellant ICBM/SLBM and Mobile Launcher Elimination-Russia	1	7	25	129	Y
1.2	Liquid Propellant ICBM/SLBM Missile and Silo Elimination-Russia		12	8	53	Y
1.3	SLBM Launcher Elimination/SSBN Dismantlement-Russia		3			Y
2.	Strategic Nuclear Arms Elimination					
2.1	SS-24 Missile Disassembly, Storage, and Elimination-Ukraine		6			Y
3.	Chemical Weapons Destruction	1	3	4		
3.1	Chemical Weapons Destruction Facility-Russia		13	4		Y
4.	Nuclear Weapons Storage Security		5			
4.1	Site Security Enhancements-Russia		5	2		
4.2	Far East Training Center-Russia		1	1		
4.3	Automated Inventory Control and Management System-Russia		2			Y
5.	Nuclear Weapons Transportation Security			2		
5.1	Nuclear Weapons Transportation-Russia		1			
5.2	Railcar Maintenance and Procurement-Russia		4	1		
6.	Biological Threat Reduction		49	2		
6.1	Biosecurity, Biosafety, Threat Agent Detection and Response	2	21	3		Y
6.2	Cooperative Biological Research		15			Y
7.	WMD Proliferation Prevention Initiative		3			
7.1	Land Border/Maritime Proliferation Prevention-Ukraine	1	12			
7.2	Caspian Sea Maritime Proliferation Prevention-Azerbaijan		6			
7.3	Fissile and Radioactive Materials Proliferation Prevention-Kazakhstan		6	4		
	Chemical Weapons Elimination - Albania		1			Y
	CTR Integrated Services Program		6			
	Grand Totals	5	183	56	182	

Figure 3: The amount notified, obligated, and expended for activities in millions

Program	Notified in FY 2008	Cumulative Notified	Obligated in FY 2008	Cumulative Obligations	Expended in FY 2008	Cumulative Expenditures
Strategic Offensive Arms Elimination	\$76.7	\$1,323.1	\$72.8	\$1,312.7	\$75.8	\$1,237.5
Strategic Nuclear Arms Elimination	\$4.0	\$503.9	\$6.6	\$501.8	\$5.1	\$489.2
Chemical Weapons Destruction	\$1.0	\$1,135.7	\$6.8	\$1,123.9	\$145.3	\$908.5
Nuclear Weapons Storage Security	\$42.3	\$788.8	\$38.8	\$768.1	\$139.6	\$672.7
Nuclear Weapons Transportation Security	\$40.9	\$231.7	\$35.2	\$225.0	\$33.7	\$180.1
Biological Threat Reduction	\$172.5	\$608.5	\$171.1	\$605.1	\$120.2	\$453.7
WMD Proliferation Prevention Initiative	\$48.0	\$221.7	\$52.8	\$216.1	\$41.2	\$169.9
Defense and Military Contacts	\$8.0	\$80.5	\$6.0	\$64.8	\$6.1	\$54.4
New Initiatives			\$1.5	\$1.5	\$0.3	\$0.3
Other Assessments/Administrative Support	\$19.3	\$200.1	\$18.7	\$196.5	\$20.3	\$177.5
Chemical Weapons Elimination-Albania		\$48.4	\$0.5	\$48.1	\$4.9	\$47.4
Completed Programs with Funding Activities	-\$1.8	\$907.3	-\$0.4	\$893.6	\$0.3	\$882.5
Programs with No Activity in FY 2008		\$274.7		\$274.0		\$273.9
Total CTR Program	\$410.9	\$6,324.4	\$410.5	\$6,231.2	\$592.5	\$5,547.6

Figure 4: Program FY 2010 Plan funding by program/project in millions

Program/Project	FY 2008	FY 2009	FY 2010	Total
Strategic Offensive Arms Elimination	\$76.7	\$80.0	\$66.4	\$223.0
Solid Propellant ICBM/SLBM and Mobile Launcher Elimination - Russia	\$26.6	\$37.7	\$32.6	\$96.9
Liquid Propellant ICBM/SLBM and Silo Elimination - Russia	\$32.1	\$42.3	\$25.6	\$100.0
SLBM Launcher Elimination/SSBN Dismantlement - Russia	\$18.0		\$8.2	\$26.1
Strategic Nuclear Arms Elimination	\$2.2	\$6.4	\$6.8	\$15.4
SS-24 Missile Disassembly, Storage, and Elimination - Ukraine	\$2.2	\$6.4	\$6.8	\$15.4
Chemical Weapons Destruction	\$1.0			\$1.0
Chemical Weapons Destruction Facility - Russia	\$1.0			\$1.0
Nuclear Weapons Storage Security	\$34.3	\$23.2	\$15.1	\$72.6
Site Security Enhancements - Russia	\$10.7	\$23.2	\$15.1	\$49.0
Far East Training Center - Russia	\$8.4			\$8.4
Automated Inventory Control and Management System - Russia	\$15.2			\$15.2
Nuclear Weapons Transportation Security	\$40.9	\$40.8	\$46.4	\$128.1
Nuclear Weapons Transportation - Russia	\$19.9	\$20.3	\$21.7	\$61.9
Railcar Maintenance and Procurement - Russia	\$21.0	\$20.5	\$24.7	\$66.2
Biological Threat Reduction	\$174.5	\$185.5	\$152.1	\$512.1
Biosecurity, Biosafety, Threat Agent Detection and Response	\$152.7	\$174.3	\$133.3	\$460.2
Cooperative Biological Research	\$21.8	\$11.2	\$18.9	\$51.8
WMD Proliferation Prevention Initiative	\$59.0	\$59.3	\$90.9	\$209.2
Land Border and Maritime Proliferation Prevention-Ukraine	\$37.6	\$25.7	\$27.4	\$90.7
Caspian Sea Maritime Proliferation Prevention-Azerbaijan	\$10.6	\$6.3		\$16.9
Fissile and Radioactive Material Proliferation Prevention-Kazakhstan	\$10.8	\$27.4	\$62.4	\$100.6
Expanded Proliferation Prevention			\$1.0	\$1.0
Defense and Military Contacts	\$8.0	\$8.0	\$5.0	\$21.0
Defense and Military Contacts	\$8.0	\$8.0	\$5.0	\$21.0
New Initiatives	\$10.0	\$10.0		\$20.0
New Initiatives	\$10.0	\$10.0		\$20.0
Other Assessments/Administrative Support	\$19.3	\$20.1	\$21.4	\$60.8
Audits and Examinations	\$0.5	\$0.5	\$0.5	\$1.5
Program Management/Administration	\$18.8	\$19.6	\$20.9	\$59.3

Figure 5: Program FY 2010 Plan funding by objective in millions

Objective	FY 2008	FY 2009	FY 2010	Total
1. Dismantle Threat WMD and associated infrastructure	\$79.9	\$86.4	\$73.2	\$239.5
2. Consolidate and secure threat WMD and related technology and materials	\$227.9	\$238.3	\$194.7	\$661.0
3. Increase transparency and encourage high standards of conduct	\$21.8	\$11.2	\$18.9	\$51.8
4. Support defense and military cooperation with objective of preventing proliferation	\$77.0	\$77.3	\$95.9	\$250.2
Other Program Support	\$19.3	\$20.1	\$21.4	\$60.8
Estimated Budget	\$425.9	\$433.2	\$404.1	\$1,263.3

Figure 6: Program FY 2010 Plan funding by country in millions

Program/Project	FY 2008	FY 2009	FY 2010	Total
Strategic Offensive Arms Elimination	\$76.7	\$80.0	\$66.4	\$223.0
Solid Propellant ICBM/SLBM and Mobile Launcher Elimination - Russia	\$26.6	\$37.7	\$32.6	\$96.9
Liquid Propellant ICBM/SLBM and Silo Elimination - Russia	\$32.1	\$42.3	\$25.6	\$100.0
SLBM Launcher Elimination/SSBN Dismantlement - Russia	\$18.0		\$8.2	\$26.1
Strategic Nuclear Arms Elimination	\$2.2	\$6.4	\$6.8	\$15.4
SS-24 Missile Disassembly, Storage, and Elimination - Ukraine	\$2.2	\$6.4	\$6.8	\$15.4
Chemical Weapons Destruction	\$1.0			\$1.0
Chemical Weapons Destruction Facility - Russia	\$1.0			\$1.0
Nuclear Weapons Storage Security	\$34.3	\$23.2	\$15.1	\$72.6
Site Security Enhancements - Russia	\$10.7	\$23.2	\$15.1	\$49.0
Far East Training Center - Russia	\$8.4			\$8.4
Automated Inventory Control and Management System - Russia	\$15.2			\$15.2
Nuclear Weapons Transportation Security	\$40.9	\$40.8	\$46.4	\$128.1
Nuclear Weapons Transportation - Russia	\$19.9	\$20.3	\$21.7	\$61.9
Railcar Maintenance and Procurement - Russia	\$21.0	\$20.5	\$24.7	\$66.2
Biological Threat Reduction	\$174.5	\$185.5	\$152.1	\$512.1
Biological Threat Reduction - Russia	\$4.2	\$7.4	\$7.6	\$19.1
Biological Threat Reduction - Afghanistan			\$0.5	\$0.5
Biological Threat Reduction - Azerbaijan	\$27.2	\$23.6	\$32.0	\$82.8
Biological Threat Reduction - Armenia	\$1.1	\$6.5	\$9.1	\$16.7
Biological Threat Reduction - Georgia	\$66.8	\$48.2	\$21.2	\$136.2
Biological Threat Reduction - Kazakhstan	\$29.7	\$33.7	\$39.2	\$102.7
Biological Threat Reduction - Ukraine	\$20.4	\$44.7	\$26.4	\$91.6
Biological Threat Reduction - Uzbekistan	\$25.1	\$21.4	\$16.0	\$62.5
WMD Proliferation Prevention Initiative	\$59.0	\$59.3	\$90.9	\$209.2
Land Border and Maritime Proliferation Prevention-Ukraine	\$37.6	\$25.7	\$27.4	\$90.7
Caspian Sea Maritime Proliferation Prevention-Azerbaijan	\$10.6	\$6.3		\$16.9
Fissile and Radioactive Material Proliferation Prevention-Kazakhstan	\$10.8	\$27.4	\$62.4	\$100.6
Expanded Proliferation Prevention			\$1.0	\$1.0
Defense and Military Contacts	\$8.0	\$8.0	\$5.0	\$21.0
Defense and Military Contacts	\$8.0	\$8.0	\$5.0	\$21.0
New Initiatives	\$10.0	\$10.0		\$20.0
New Initiatives	\$10.0	\$10.0		\$20.0
Other Assessments/Administrative Support	\$19.3	\$20.1	\$21.4	\$60.8
Audits and Examinations	\$0.5	\$0.5	\$0.5	\$1.5
Program Management/Administration	\$18.8	\$19.6	\$20.9	\$59.3
Estimated Budget	\$425.9	\$433.2	\$404.1	\$1,263.3

Appendix A: CTR Program Umbrella and Implementing Agreements

This Appendix lists the umbrella agreements, implementing agreements, and memoranda of understanding concluded with partner countries for programs that are included in the FY 2010 plan. Short titles used in the main body of this report are in parentheses. Department of State country codes are in parentheses after each partner country name.

Armenia (AM)

Agreement between the Government of the United States of America and the Government of the Republic of Armenia Concerning Cooperation in the Area of Counterproliferation of Weapons of Mass Destruction, dated July 24, 2000 (U.S.-Armenia CTR Umbrella Agreement)

Azerbaijan (AJ)

Agreement between the Government of the United States of America and the Government of the Republic of Azerbaijan Concerning Cooperation in the Area of Counterproliferation of Weapons of Mass Destruction and Defense Activities, dated September 28, 1999 (U.S.-Azerbaijan CTR Umbrella Agreement)

Agreement Between the Department of Defense of the United States of America and the Cabinet of Ministers of the Republic of Azerbaijan Concerning Cooperation in Preventing the Proliferation of Weapons of Mass Destruction, dated January 2, 2004, as amended October 28, 2004, August 26, 2005, July 11, 2006, April 24, 2007, and March 5, 2008 (WMD-PPI Implementing Agreement)

Agreement Between the Department of Defense of the United States of America and the Cabinet of Ministers of the Republic of Azerbaijan Concerning Cooperation in the Area of Prevention of Proliferation of Technology, Pathogens and Expertise that Could Be Used in the Development of Biological Weapons, dated June 6, 2005, as amended June 23, 2006, March 6, 2007, October 5, 2007, and March 5, 2008 (Biological Threat Reduction Implementing Agreement - Azerbaijan)

Georgia (GG)

Agreement Between the United States of America and Georgia Concerning Cooperation in the Area of the Prevention of Proliferation of Weapons of Mass Destruction, and the Promotion of Defense and Military Relations, dated July 17, 1997, and as extended May 17, 2002 (U.S.-Georgia CTR Umbrella Agreement)

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of Georgia Concerning Cooperation in the Area of Prevention of Proliferation of Technology, Pathogens and Expertise Related to the Development of Biological Weapons, dated December 30, 2002, as amended March 23, 2004, August 30, 2004, November 3, 2005, June 23, 2006, March 6, 2007, and March 5, 2008 (Biological Threat Reduction Implementing Agreement - Georgia)

Kazakhstan (KZ)

Agreement Between the United States of America and the Republic of Kazakhstan Concerning the Destruction of Silo Launchers of Intercontinental Ballistic Missiles, Emergency Response, and the Prevention of Proliferation of Nuclear Weapons, dated December 13, 1993,

as extended December 5, 2000, and as amended and extended December 13, 2007
(U.S.-Kazakhstan CTR Umbrella Agreement)

Memorandum of Understanding and Cooperation on Defense and Military Relations Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Kazakhstan, dated February 14, 1994 **(Defense and Military Contacts Memorandum of Understanding (MOU))**

Agreement Between the Department of Defense of the United States of America and the Ministry of Energy and Mineral Resources of the Republic of Kazakhstan Concerning the Elimination of Infrastructure for Weapons of Mass Destruction, dated October 3, 1995, as amended June 10, 1996, September 9, 1998, December 17, 1999, July 29, 2000, May 31, 2002, April 2, 2003, June 28, 2004, December 7, 2004, August 23, 2005, and May 2, 2006 **(WMDIE Implementing Agreement)**

Moldova (MD)

Memorandum on Cooperation on Defense and Military Relations Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Moldova, dated December 4, 1995 **(Defense and Military Contacts MOU)**

Russia (RS)

Agreement Between the United States of America and the Russian Federation Concerning the Safe and Secure Transportation, Storage and Destruction of Weapons and the Prevention of Weapons Proliferation, dated June 17, 1992, as amended February 3, 2005, and as amended and extended June 15/16, 1999 and June 16, 2006 **(U.S.-Russia CTR Umbrella Agreement)**

Agreement Between the Department of Defense of the United States of America and the Federal Agency for Industry Concerning the Safe, Secure and Ecologically Sound Destruction of Chemical Weapons, dated July 30, 1992, as amended March 18, 1994, May 28, 1996, April 10, 1997, December 29, 1997, January 14, 1999, November 14, 2000, August 29, 2002, October 23, 2002, March 17, 2003, March 18, 2003, September 23, 2003, July 28, 2004, October 6, 2005, September 8, 2006, and May 21, 2007 **(Chemical Weapons Destruction Implementing Agreement)**

Agreement Establishing an International Science and Technology Center, dated November 27, 1992 **(ISTC Agreement)**

Agreement Between the Department of Defense of the United States of America and the Federal Space Agency Concerning Cooperation in the Elimination of Strategic Offensive Arms, dated August 26, 1993, as amended April 3, 1995, June 19, 1995, May 27, 1996, April 11, 1997, February 11, 1998, June 9, 1998, August 16, 1999, August 8, 2000, June 9, 2003, September 25, 2003, January 14, 2005, May 25, 2006, and April 27, 2007, and as amended and extended August 30, 2002 and September 5, 2006 **(SOAE Implementing Agreement)**

Memorandum of Understanding and Cooperation on Defense and Military Relations Between the Department of Defense of the United States of America and the Ministry of Defense of the Russian Federation, dated September 8, 1993 **(Defense and Military Contacts MOU)**

Agreement Between the Government of the United States of America and the Government of the Russian Federation on Science and Technology Cooperation, dated December 16, 1993 (**Science and Technology Cooperation Russia Implementing Agreement**)

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Russian Federation Concerning Cooperation in Nuclear Weapons Storage Security through Provision of Material, Services, and Related Training, dated April 3, 1995, as amended June 21, 1995, May 27, 1996, April 8, 1997, January 14, 1999, November 1, 1999, June 12, 2000, September 19, 2002, July 12, 2004, May 5, 2005, March 22, 2006, February 21, 2007, November 15, 2007, and May 28, 2008, and as extended January 14, 1999, January 25, 2000, and June 17, 2006 (**NWSS Implementing Agreement**)

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Russian Federation Concerning Cooperation in Nuclear Weapons Transportation Security through Provision of Material, Services, and Related Training, dated April 3, 1995, as amended June 21, 1995, May 27, 1996, June 12, 2000, February 28, 2002, September 19, 2002, March 26, 2003, March 5, 2004, July 12, 2004, May 23, 2005, August 26, 2005, March 22, 2006, February 21, 2007, and May 28, 2008, and as extended January 14, 1999, January 25, 2000, and June 17, 2006 (**NWTS Implementing Agreement**)

Memorandum of Agreement Between the Government of the United States of America and the International Science and Technology Center Concerning the Contribution of Funds for Approved Projects to Facilitate the Nonproliferation of Weapons and Weapons Expertise, dated April 15, 1996, as amended by annexes May 23, 1997, May 21, 1998, and January 26, 1999, and by amendments to the annex of January 26, 1999, June 29, 1999, and September 18, 2000 (**ISTC Funding Memorandum of Agreement**)

Ukraine (UP)

Agreement Between the United States of America and Ukraine Concerning Assistance to Ukraine in the Elimination of Strategic Nuclear Arms, and the Prevention of Proliferation of Weapons of Mass Destruction, dated October 25, 1993, as amended August 27, 2002 and September 18, 2003, and as extended July 29, 1999 and December 15, 2006 (**U.S. - Ukraine CTR Umbrella Agreement**)

Memorandum of Understanding and Cooperation on Defense and Military Relations Between the Department of Defense of the United States of America and the Ministry of Defense of Ukraine, dated July 27, 1993 (**Defense and Military Contacts MOU**)

Agreement to Establish a Science and Technology Center in Ukraine, dated October 25, 1993 (**Science and Technology Center Ukraine Agreement**)

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of Ukraine Concerning the Provision of Material, Services, and Related Training to Ukraine in Connection with the Elimination of Strategic Nuclear Arms, dated December 5, 1993, as amended December 18, 1993, March 21, 1994, April 1, 1995, June 27, 1995, June 4, 1996, May 1, 1997, June 12, 1998, July 10, 1999, July 28, 2000, December 4, 2000, September 9, 2002, and October 27, 2008, and as extended January 31, 2001, and January 5, 2007 (**SNAE Implementing Agreement**)

Agreement Between the Department of Defense of the United States of America and the Ministry of Economy of Ukraine on the Provision of Assistance to Ukraine in Establishing an Export Control System in Order to Prevent the Proliferation from Ukraine of Weapons of Mass Destruction, dated October 22, 2001, as amended March 26, 2004, June 27, 2005, September 12, 2006, August 17, 2007, and April 16, 2008 (Export Control Implementing Agreement)

Agreement between the Department of Defense of the United States of America and the Ministry of Health of Ukraine Concerning Cooperation in the Area of Prevention of Proliferation of Technology, Pathogens and Expertise that Could Be Used in the Development of Biological Weapons, dated August 29, 2005, as amended September 4, 2008 (Biological Threat Reduction Implementing Agreement - Ukraine)

Uzbekistan (UZ)

Agreement Between the Government of the United States of America and the Government of the Republic of Uzbekistan Concerning Cooperation in the Area of the Promotion of Defense Relations and the Prevention of Proliferation of Weapons of Mass Destruction, dated June 5, 2001 (U.S.-Uzbekistan CTR Umbrella Agreement)

Agreement Between the Department of Defense of the United States of America and the Ministry of Defense of the Republic of Uzbekistan Concerning Cooperation in the Area of Demilitarization of Biological Weapons Associated Facilities and the Prevention of Proliferation of Biological Weapons Technology, dated October 22, 2001, as amended July 29, 2003, May 17, 2004, September 10, 2004, December 19, 2005, October 11, 2006, January 5, 2007, and July 25, 2008 (Biological Threat Reduction Implementing Agreement - Uzbekistan)

Appendix B: Financial Commitments for FY 2009 from the International Community and Russia for the Chemical Weapons Destruction Facility at Shchuch'ye, Russia

FY 2009 Financial Commitment from the International Community

As agreed by Group of Eight leaders at the Kananaskis Summit in June 2002, chemical weapons destruction in Russia is a high priority for the Group of Eight Global Partnership against the Spread of Weapons and Materials of Mass Destruction. Since that summit, several countries have announced commitments under the Global Partnership to support Russian chemical weapons destruction, including a chemical weapons destruction facility at Shchuch'ye. Since 2003, the international community has provided \$189 million of a total \$216 million* commitment to support CWDF construction. International donors plan to spend an additional \$27 million in FY 2009 to complete the facility. Specific international commitments for Shchuch'ye include:

- *Belgium*: Provided €35,000 (\$294,000) for an electrical infrastructure project.
- *Canada*: Provided \$10 million (\$11.2 million) for public address and warning system and \$55 million (\$64.5 million) to procure chemical weapon destruction equipment for the second destruction building. Canada expects to complete a \$33 million (\$39.6 million) project to construct an 18-kilometer railway linking the Planovy storage facility to the Shchuch'ye CWDF by the end of 2008.
- *Czech Republic*: Provided CZK10 million (Czech crowns) (\$500,000) for electrical infrastructure.
- *Denmark*: Provided €25,000 (\$249,000) to support the Green Cross's chemical weapons destruction public outreach program in Russia.
- *European Union*: Provided €5.245 million (\$5.53 million) for electrical infrastructure.
- *Finland*: Provided €15,000 (\$1.02 million) for electrical infrastructure. Finland has also provided €15,000 (\$664,000) of its €65,000 commitment to the Green Cross's chemical weapons public outreach program in Russia.
- *France*: Provided €6 million (\$8.12 million) for chemical weapons destruction equipment and has provided €9 million of a €10 million (\$12.18 million) commitment of funds and technical assistance for an environmental survey.
- *Ireland*: Provided €80,000 (\$110,000) toward procurement of a metal parts furnace and other equipment for the destruction process.

* Amounts stated in U.S. dollars are approximate because of the fluctuation of currency exchange rates. The total international commitment includes non-United States and non-Russia commitments.

- *Italy*: Provided €7.7 million (\$9.12 million) for a section of gas pipeline and plans to provide an additional € million (\$7.15 million) in 2008 and 2009.
- *Netherlands*: Provided €1.5 million (\$2.06 million) for the procurement of a metal parts furnace and €2,756,500 (\$3.73 million) of a €3,579,543 commitment for electrical infrastructure. The Netherlands has also provided €43,975 (\$59,000) of a €48,661 commitment for an assessment of a local community's social infrastructure investment and development needs and provided €41,365 (\$55,000) of a €43,303 commitment to the Green Cross's chemical weapons destruction outreach program.
- *New Zealand*: Provided NZD1.9 million (New Zealand dollars) (\$1.2 million) for an electrical infrastructure project.
- *Norway*: Provided €400,000 (\$548,000) for electrical infrastructure.
- *Sweden*: Provide SEK 5.5 million (Swedish kronor) (\$714,000) for an electrical infrastructure and plans to provide funding to the Green Cross in 2009.
- *Switzerland*: Provided €500,000 (\$623,000) for a sanitary and hygiene monitoring system.
- *United Kingdom*: Provided £14 million (\$26.2 million) for water supply, electricity infrastructure, and equipment for the destruction process. The UK expects to provide another £10 million (\$18 million) in 2008 and 2009. The UK also has shouldered the administrative burden of implementing many of the projects funded by the international donors, including Belgium, Canada, the Czech Republic, the European Union, Finland, Ireland, the Netherlands, New Zealand, Norway, Sweden, and the Nuclear Threat Initiative.
- *The Nuclear Threat Initiative*, a non-governmental organization: Provided \$1.0 million to the Canadian railway project at Shchuch'ye to construct a bridge.

FY 2009 Financial Commitment from the Russian Federation

The Russian Federation reported that it planned to spend a total of 33.5 billion rubles (\$1.4 billion) on chemical weapons elimination in 2008. Russia has not yet made available specific information on the amount actually spent on Shchuch'ye in 2008. Total Russian funding for Shchuch'ye through 2007 was \$254.2 million.

Appendix C: Report on Cooperative Threat Reduction Moscow Treaty Assistance Pursuant to S. Exec. Rpt. 108-1, Section 2(1)

This Senate Report, dated March 6, 2003, regarding advice and consent to ratification of the Moscow Treaty states: “Recognizing that implementation of the Moscow Treaty is the sole responsibility of each party, not later than 60 days after the exchange of instruments of ratification of the Treaty, and annually thereafter on February 15, the President shall submit to the Committee on Foreign Relations and the Committee on Armed Services of the Senate a report and recommendations on how United States Cooperative Threat Reduction assistance to the Russian Federation can best contribute to enabling the Russian Federation to implement the Treaty efficiently and maintain the security and accurate accounting of its nuclear weapons and weapons-usable components and material in the current year. The report shall be submitted in both unclassified and, as necessary, classified form.” (S. Exec. Rpt. 108-1, 2 (1)).

Overview

The Moscow Treaty, effective June 1, 2003, obligates each party to reduce and limit its aggregate number of operationally deployed strategic nuclear warheads to between 1,700 and 2,200 by December 31, 2012. Russia has announced plans to reduce warheads by removing from service and eliminating missile systems, submarines, and heavy bombers that have reached the end of their service life. Russia also announced plans to reduce warheads by converting silo launchers of ICBMs, launchers of SLBMs, and heavy bombers to newer types or variants of strategic offensive arms with reduced numbers of warheads.

Program activities that address Russia’s strategic nuclear systems and infrastructure directly support implementation of the Moscow Treaty. Some projects dismantle ICBMs; silo launchers and road-mobile ICBM launchers; SLBMs, SLBM launchers, and the reactor cores of associated submarines; and related strategic infrastructure. Other projects support consolidation, securing, and accounting of nuclear weapons and fissile material removed from nuclear weapons.

Current Year (FY 2009) Planned Activities

Strategic Offensive Arms Elimination: DoD is assisting Russia by contracting for and overseeing the destruction of strategic weapons delivery systems and associated infrastructure in accordance with all relevant START provisions and agreements, including the START Conversion or Elimination Protocol. The following work is expected to be completed in FY 2009:

Solid Propellant ICBM/SLBM and Mobile Launcher Elimination. DoD plans to eliminate 35 SS-25 ICBMs, 10 SS-N-20 SLBMs, and 32 SS-25 road-mobile launchers.

Liquid Propellant ICBM/SLBM Missile and Silo Elimination. DoD plans to dismantle 34 and eliminate 33 SS-19 silos and dismantle 38 SS-18 silos. DoD also will eliminate 9 SS-18 ICBMs, 28 SS-19 ICBMs, and 16 SS-N-18s.

SLBM Launcher Elimination/SSBN Dismantlement. DoD will eliminate 20 launchers from *Typhoon*-class SSBN 724.

Nuclear Weapons Storage Security: This program supports U.S. proliferation prevention objectives by enhancing the security, safety, and control of Russia’s stored nuclear weapons destined for dismantlement.

Site Security Enhancements. This project enhances the safety and security of MOD's nuclear weapons storage sites, including national stockpile sites; operational base storage sites under the control of or supporting Russia's 12th Main Directorate, Air Force, and former Strategic Rocket Forces; and some temporary storage sites, such as rail transfer points. Security upgrades will be completed at six sites, with a 1-year warranty period after construction is completed. The sustainment activity provides a training, maintenance, and repair program to enable MOD to sustain U.S. Government-provided site security enhancements. Year 2 efforts, based on the needs assessments done in Year 1, will include supplementary development and delivery of training, additional vendor service contracts, limited spare parts procurement, and support of the Personnel Reliability Program and Small Arms Training System.

Far East Training Center. This project will enhance the Site Security Enhancements project by providing a training center located in the Far East for all MOD forces that work with the various physical protection systems that the U.S. Government procured. Work will continue on the installation of technical equipment in the two new buildings and the refurbished administration building. The training center will be completed in FY 2009.

Automated Inventory Control and Management System. This project enhances the safety and security of MOD's nuclear weapons. AICMS II is augmenting and enhancing the AICMS I inventory and management system for MOD's nuclear weapons; expanding the system to a total of 33 sites; and providing a hardware and software upgrade of the existing system, training, and 1 year of warranty for the hardware and software. AICMS is used to track and catalog weapons to be eliminated.

Nuclear Weapons Transportation Security: This program supports U.S. proliferation prevention objectives by enhancing the security and safety of Russia's nuclear weapons during shipment to consolidated storage sites and dismantlement facilities.

Nuclear Weapons Transportation. This project assists MOD's shipment of nuclear warheads from deployment sites to central storage and dismantlement locations. DoD expects to support approximately 48 train shipments.

Railcar Maintenance and Procurement. This project is intended to ensure that the 200 nuclear weapons cargo railcars maintain the required Ministry of Railways certification. DoD will procure 14 cargo railcars in FY 2009 to replace existing railcars at the end of their service life. MOD will destroy two old railcars for each new railcar built.

Fissile Material Storage Facility: The FMSF provides centralized, safe, secure, and ecologically sound storage for fissile material removed from nuclear weapons. The FMSF was completed and turned over to Russia in December 2003, and Russia announced that it had commenced loading in July 2006. The Department of State has assumed responsibility for negotiating a legal framework, separate Liability Agreement, and Transparency Protocol that would enable monitoring to measure certain attributes of the stored material. No DoD funds are being expended to support these negotiations.

Appendix D: Annual Certification on Use of Facilities Being Constructed for Cooperative Threat Reduction Projects or Activities

Section 1307 of the NDAA for FY 2004 requires the Secretary of Defense to submit to the congressional defense committees a certification for each facility where CTR-funded construction occurred during the preceding fiscal year. The certification must address the following three requirements:

“(1) Whether or not such facility will be used for its intended purpose by the government of the state of the former Soviet Union in which the facility is constructed;

(2) Whether or not the government of such state remains committed to the use of such facility for its intended purpose; and

(3) Whether those actions needed to ensure security at the facility, including secure transportation of any materials, substances, or weapons to, from, or within the facility, have been taken.”

The following activities have met the above three requirements:

Strategic Offensive Arms Elimination

SS-25 Solid Rocket Motor Burn Facility: In August 2005, DoD and FSA began this three-phase project to repair and equip a facility located at Krasnoarmeysk, Russia to support burning SS-25 SRMs. This joint project provided a full operational capability to burn propellant from SS-25 SRMs. In addition, DoD and FSA created a new capability to eliminate more dangerous SS-24 and SS-25 SRMs with known anomalies. DoD and FSA completed this project in October 2007.

Chemical Weapons Destruction - Russia

DoD is assisting MI&T to design and construct a facility at Shchuch'ye, Russia to eliminate its most proliferable nerve-agent weapons. The facility will have the capacity to destroy nerve agent from the Planovy stockpile in compliance with the Chemical Weapons Convention. Construction of the CWDF began in March 2003 and completion is expected by July 2009.

Nuclear Weapons Storage Security - Russia

Site Security Enhancements: DoD is supporting the physical security upgrades at 24 permanent and temporary nuclear weapons storage sites. The upgrades include state-of-the-art security system technologies and security force response and access control facilities to enhance Russia's capability to detect, assess, and respond to unauthorized entries. Security enhancements for 12 sites were completed in FY 2006. Twelve additional sites were put under contract in FY 2006, with the first six completed in FY 2008. The remaining six sites were completed in the first quarter FY 2009.

Far East Training Center: In 2005, DoD began a three-phased approach to upgrading the Far East Training Center at Khabarovsk. It will be a training facility for all branches of MOD providing security for WMD, specifically supporting operators, maintainers, and system administrators of the approved “objective suite” of physical equipment. Phase I (Needs Assessment) was completed in March 2006. Phase II (Design), which includes completion of the design agreed upon in August 2007, and procurement was completed in FY 2009. Phase III

(Construction, Outfitting, and Transfer of Custody) began August 2007 and is projected to be completed and custody transferred in June 2009.

Automated Inventory Control and Management System: DoD supports the second phase of the automated inventory control and management system with the construction of up to 13 new field facilities in addition to the technological refresh of hardware and software at the 20 legacy sites. Construction of the new sites and training began in April 2008 and will be completed in FY 2009.

Biological Threat Reduction – FSU

Biosecurity and Biosafety and Threat Agent Detection and Response Projects: There were 16 active BTR construction projects. Four were completed, and 12 continue into FY 2009. They are:

Azerbaijan:

- Ongoing: Interim Human CRL at the Anti-Plague Station in Baku.

Georgia:

- Ongoing: CRL in Tbilisi and Veterinary ZDL in Akhaltsikhe

Kazakhstan:

- Completed in January 2008: ZDL at the Uralsk Anti-Plague Station.
- Ongoing: ZDLs at the Kazakh Science Center for Quarantine and Zoonotic Diseases and the Research Institute for Biological Safety Issues.

Russia:

- Ongoing: Biosecurity and biosafety renovations are underway at Pokrov Biologics plant in Pokrov, the All Russia Research Veterinary Institute at Kazan, the State Research Center of Virology and Biological Technology in Vector, and the All Russia Research Institute for Animal Health in Vladimir.

Ukraine:

- Completed in July 2008: ZDL at the Central Sanitary-Epidemiologic Station in Kyiv.
- Ongoing: Oblast Sanitary-Epidemiologic Station in Odesa and the Interim CRL at the Ukrainian Research and Anti-Plague Institute in Odesa.

Uzbekistan:

- Completed in July 2008: ZDLs in Karshi (human and veterinary).

Acronyms and Abbreviations

A&E	Audit and Examination
AICMS	Automated Inventory Control and Management System
BTR	Biological Threat Reduction
BVSPC	Black & Veatch Special Projects Corporation
BW	Biological Weapons
CBR	Cooperative Biological Research
CRL	Central Reference Laboratory
CTR	Cooperative Threat Reduction
CWDF	Chemical Weapons Destruction Facility
DMC	Defense and Military Contacts
DoD	Department of Defense
DOE	Department of Energy
FMSF	Fissile Material Storage Facility
FSA	Federal Space Agency
FSU	former Soviet Union
FY	Fiscal Year
ICBM	Intercontinental Ballistic Missile
ISTC	International Science and Technology Center
JRIP	Joint Requirements and Implementation Plan
MI&T	Ministry of Industry and Trade
MOD	Ministry of Defense
Moscow Treaty	Treaty on Strategic Offensive Reductions
MOU	Memorandum of Understanding
NDAA	National Defense Authorization Act
RCSS	Railcar Consist Security System
RTSC	Raytheon Technical Services Company LLC
SAEC	State Atomic Energy Corporation
SLBM	Submarine Launched Ballistic Missile
SRM	Solid Rocket Motor
SSBN	Nuclear-Powered Ballistic Missile Submarine
START	Strategic Arms Reduction Treaty
UK	United Kingdom
U.S.	United States
VAT	Value Added Tax
WMD	Weapons of Mass Destruction
WMD-PPI	WMD Proliferation Prevention Initiative
ZDL	Zonal Diagnostic Laboratory