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AIR UNIVERSITY

COOPERATIVE THREAT REDUCTION

by

Jeff Webb, Lt Col USAF

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Advisor: Dr Barry Schneider

Maxwell Air Force Base, Alabama

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14. ABSTRACT Recent events such as the Black Hawk shoot down in Bosnia and Khobar Tower bombing in Saudi Arabia, along with strong public opinion have focused national attention on the issue of accountability. Despite this increased attention, it is the opinion of this author that senior Air Force leadership has not adequately defined, explained or standardized the concept of accountability. As a result, there exists a perception that accountability, in its application, is inconsistent, situation dependent, and subjective. This perception gives the appearance of a double standard and a ?one mistake? Air Force. Divided into seven chapters, the paper?s primary focus centers on two questions: first, what is the Air Force definition of accountability and second, why the increased emphasis on it? After answering these two questions, student accountability survey results are examined. Analysis will provide some insight into how the new emphasis on accountability is perceived by a select group of Air Force Officers at Air War College (AWC), Air Command and Staff College (ACSC), and Squadron Officer School (SOS). Moving to the heart of the paper, three high profile incidents, which address the application of accountability, are analyzed: an F-15C crash, which resulted in charging two NCOs with negligent homicide; the Khobar Tower bombing, a case in which the accountability issue is still pending; and the CT-43 mishap, a case in which several people in the chain of command were held accountable. The paper will end with a conclusion and several recommendations.					
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Preface

A great debate has raged within the United States about how we should address the weapons of mass destruction (WMD) problem and how we should approach the new republics in the former Soviet Union and their arsenals. The need for unprecedented cooperation between the United States and the former Soviet states is critical to future world stability. In particular, the Cooperative Threat Reduction (CTR) program points out that the nuclear threat and weapons of mass destruction proliferation problems can be approached and tangible results can be achieved.

I believe that a window of opportunity exists now for substantial reduction in the threat from nuclear proliferation as well as other WMD. CTR is one of the critical instruments in the reduction process.

I would like to thank Dr. Barry Schneider for his guidance and patience as my advisor.

Abstract

In response to the dangers presented by the possible diversion of WMD or the technology to rogue nations, the U.S. Congress initiated the Cooperative Threat Reduction (CTR) program in 1991. This program is designed to provide Belarus, Ukraine, Kazakhstan, and Russia with assistance in the destruction, transportation, storage, and safeguarding of WMD. CTR is projected to be a multi-billion dollar effort. Critics have charged that the program has provided little results and that the money should be redirected. Is the proliferation threat real, can it be stopped and is CTR the appropriate method of reducing the threat? The threat of proliferation from the new republics is enormous when considering the sheer size of the former Soviet arsenal. Proliferation can occur from many different sources; smuggling, technology transfer, scientist hired by outside countries, theft of whole weapons, etc.. CTR addresses a whole range of possibilities and assists in the destruction of active systems which are designed to destroy the U.S.. CTR has been successful in helping reduce the nuclear weapons delivery systems, through providing destruction equipment and dismantlement help. Clearly, the program should be continued and possibly expanded.

Chapter 1

Cooperative Threat Reduction

Introduction

The threat of all out nuclear war has diminished considerably since the collapse of the Soviet Union, however the concern over nuclear proliferation has not subsided. When the former Soviet Union (FSU) disintegrated it left behind an estimated 30,000 nuclear warheads, 40,000 metric tons of toxic chemical agents in weapons and a significant biological warfare capability.¹ These weapons of mass destruction (WMD) were spread throughout the FSU. It has been estimated that 3,200 strategic nuclear warheads were located outside Russia in the republics of Belarus, Kazakhstan, and Ukraine.²

In response to the dangers posed by the possible diversion of WMD or the technology to rogue nations, the U.S. Congress initiated the Cooperative Threat Reduction (CTR) program in 1991, which is often referred to as the Nunn-Lugar program. This program is designed to provide Belarus, Kazakhstan, Russia, and Ukraine with assistance in the destruction, transportation, storage and safeguarding of WMD. CTR focuses on stemming the possible proliferation of WMD, its technology, as well as strengthening defense and military cooperation ties.

Critics charge that CTR is a give away program with a bottomless pit. Some question whether the assistance provided is reaching its intended destination. Others suspect that the funds are being diverted to continued nuclear weapons research. The purpose of this paper is to provide an overview of the program and answer the question, “Are we getting anything for the investment?”

Notes

¹ Perry, William J., *Annual Report to the President and the Congress*, Office of Secretary of Defense, March 1996,63,69.

² *Cooperative Threat Reduction*, Department of Defense, April 1995, 2.

Chapter 2

Background

Congressional action has provided DOD with \$1.5 billion in obligation authority to conduct CTR through FY 1997.¹ The Defense Special Weapons Agency (DSWA) formerly known as the Defense Nuclear Agency (DNA), was assigned as the executive agent for the program. The objectives of the program are:

- Assist the former Soviet republics in destroying nuclear and other WMD.
- Transport, store disable, and safeguard weapons in connection with destruction.
- Establish verifiable safeguards against the proliferation of WMD.
- Prevent diversion of weapons related expertise.
- Assist in the demilitarization of defense industries and conversion of military capabilities and technologies to civilian use.
- Expand defense and military contacts between the U.S. and the republics of the FSU.²

All of these objectives are interconnected and aimed at reducing the possibility of warheads, technologies, or fissile materials being sold to unfriendly countries or terrorist groups. Essentially the program boils down to an attempt to stop proliferation of WMD. This program is an important part of President Clinton's national security strategy of "Engagement and Enlargement."

Projects

Under the CTR umbrella there are basically four general categories of projects to achieve the objectives:

1. Destruction and dismantlement operations
2. Chain of custody and nonproliferation operations
3. Demilitarization efforts and defense conversion
4. Defense and military contacts

Destruction and dismantlement activities center on elimination of WMD, their launchers or delivery systems and the associated infrastructure. CTR provides actual equipment, services and training required to implement destruction or dismantlement. This portion of CTR provides a true reduction of the threat against a nuclear strike. Under the agreement, the U.S. is supplying cranes, graders, bulldozers, railroad cars, incinerators, and various tools to destroy missile silos, submarines, and bombers. Most of this equipment is manufactured in the U.S. and shipped to the FSU. The question has been asked,—why not use Russian equipment or give them the funds to do the job? Purchasing U.S. goods ensures accountability and provides some measure of control. Purchases made in the U.S. also provide several additional benefits such as economic stimulation as well as initial commercial inroads into the economic system of the FSU. This process may evolve into establishing permanent new markets for U.S. companies. In some instances, DOD buys CTR goods from foreign or FSU sources when it is more cost effective.

The United States Transportation Command (USTRANSCOM) was designated to assist DSWA in the movement of cargo from the U.S. to the FSU. In keeping with the desires of Congress, USTRANSCOM has primarily used commercial contract lift to provide support for the movement of cargo. The cargo is shipped via surface modes except in unusual circumstances.

Initially individual transportation contracts were awarded as cargo was made available from individual manufacturers. The USTRANSCOM carrier would pickup shipping responsibility at the manufacturer and move the cargo to end destination. This process soon became cumbersome for the republics to administer. As the number of shipment contractors proliferated, customs clearance, duty issues and the lack of understanding of FSU country transportation infrastructure caused extensive delays in clearing shipments. All CTR shipments are to be customs free and inspection free, however, 70 years of communist bureaucracy is slow to change and clearance of shipments has been slow. Russian transportation infrastructure (ports, highways, etc.) do not generally meet western standards and travel times vary greatly along with transportation equipment availability.

It was determined that a single shipper would be the most effective method in providing movement support for CTR. This permits a single customs interface, and the most cost effective method for delivering cargo. The initial one year single shipper contract was for \$41 million and was responsible for moving cargo from manufacturer to point of intended use. This is a significant departure from normal commercial shipments which ship to an initial port of entry and then turn custody over to the republics. Well over 200 shipments in excess of 56,000 measurement tons have been shipped as of September 1996.³

Chain of custody measures decrease the opportunities for diversion of weapons or fissile materials. These efforts enhance security, and control of materials by centralizing storage areas, and strengthening security measures. Another enhancement is providing safe, secure transportation from operational sites to storage areas and dismantlement facilities. These activities also include providing special fissile material containers and

designing, equipping and helping with the construction of a fissile material storage facility at Mayak. This facility will store approximately 50,000 fissile material containers (FMCs) and the Russians need space for about a total of 100,000 containers.⁴

The storage facility at Mayak will provide Russia a secure storage facility which will store fissile material for approximately 12,500 weapons.⁵ A safe secure storage facility with modern security measures will go a long way to helping Russia with its dismantlement efforts.

Demilitarization efforts are aimed at the long range reduction of capabilities to produce WMD. Defense conversion projects are designed not only to convert military capabilities but to provide alternate work for defense employees. International Science and Technology Centers (ISTCs), which are supported by CTR as well as other countries, provide reemployment projects for weapon scientists and engineers in peaceful, civilian endeavors.⁶ This is critical in ensuring that weapons scientists remain in the FSU rather than selling their expertise in other countries.

The military of the FSU was well equipped and trained to fight the cold war under the Soviet style of leadership. However, the successor republics and their military infrastructure are less suited to the post-Cold War situation.

Enhanced **defense and military contacts** are designed to actively develop defense and military relationships with the FSU republics. This process assists in training and demonstrating democratic methods along with demonstrating civilian control of the military. Military contacts are intended to encourage military restructuring and downsizing while also encouraging democratic reforms.⁷ The U.S. military also benefits by increasing its understanding of the FSU and its military structure. This portion of CTR

includes exchanges on defense strategy, exercises, and visits with military and defense counterparts. Over 166 events have been funded and have included U.S. military departments, Joint Staff, and other organizations of the defense establishment.⁸

Notes

¹ U.S. General Accounting Office, Report to Congress: "WEAPONS OF MASS DESTRUCTION: Status of the Cooperative Threat Reduction Program," September 1996.

² *Cooperative Threat Reduction*, Department of Defense, April 1995.

³ Zesinger, Robert G., Center for Verification Research CTR brief, March 1996.

⁴ U.S. General Accounting Office, Report to Congress: "WEAPONS OF MASS DESTRUCTION: Status of the Cooperative Threat Reduction Program," September 1996.

⁵ *ibid*,10.

⁶ *Cooperative Threat Reduction*, Department of Defense, April 1995. Matthews, William, "Paying for Peacekeeping (in Bosnia) is the Question," Air Force Times, 9 October 1995.

⁷ Department of Defense, First FY 1995 Semi-Annual Report on Program Activities to Facilitate Weapons Destruction and Nonproliferation in the Former Soviet Union, 31 March 1995.

⁸ *ibid*,75.

Chapter 3

How CTR Works

This program has taken the unique approach to dismantlement efforts relying heavily on commercial business practices. The process has many steps; appropriations from Congress, consulting with the republics on potential projects, notifying Congress of proposals, concluding agreements, contracting for goods and services, and providing transportation of goods.¹

In order to accomplish the objectives of CTR, umbrella agreements were made individually with Belarus, Kazakhstan, Russia, and Ukraine. These agreements provided the framework for additional implementing agreements which carry out the individual projects. Congress directed that CTR use U.S. firms where possible to carry out or provide goods and services for individual projects. CTR currently consists of over 50 projects which cover the spectrum of objectives.²

What Is The Cost?

To date Congress has provided authority for approximately \$1.5 billion for fiscal years 1992-1996 and it is projected that CTR will cost a total of \$3.2 billion through fiscal year 2001.³ Initially the program got off to a slow start as agreements and technical specifications for equipment were slow to be agreed upon. Some of the delay could also

be attributed to lingering distrust between old adversaries. Table 1 outlines the status of current obligations and the general activities the money will be spent on.

Table 1. Total Obligations FY 1992-96 \$1,049,790,810

DELIVERY VEHICLES 36%	NUCLEAR CONTROLS 30%
CHEMICAL WEAPONS 5%	DEMILITARIZATION 22%
OTHER 7%	

Source: GAO Report to Congress September 1996

The DOD must notify Congress of the cost of each project as well as how much of that amount has been obligated. This is done by through a semi-annual report which must report the program activities, costs, and any problems encountered. As of September 1996 the Congress has been notified of over \$754 million for Russia, \$396 million for Ukraine, \$172 million for Kazakhstan and \$118 million for Belarus.⁴ Obviously, Russia has the largest capability of the republics. Table 2 illustrates the scope of projects for Russia as well as the dollars which have been projected to be spent by project. As can be seen from Table 2, there are many diverse projects which fall under the CTR umbrella. The U.S. is continually working to delineate and negotiate new ways to assist the republics in the dismantlement and downsizing effort.

Table 2. CTR Assistance To Russia

Strategic Offensive Arms Elimination	\$236,000,000
Emergency Response Training/equipment	\$15,000,000
Fissile Material Storage Facility Equipment	\$84,000,000
Fissile Material Storage Facility Design	\$15,000,000

Table 2—continued

Security Enhancement for Russian Rail cars	\$21,500,000
Fissile Material Containers	\$50,000,000
Weapons Transportation Security	\$46,000,000
Weapons Storage Security	\$28,000,000
International Science and Technology Center	\$35,000,000
Research and Development Foundation	\$10,000,000
Chemical Weapons Destruction	\$68,000,000
Material Control and Accountability	\$45,000,000
Export Control	\$2,260,000
Defense Conversion	\$38,000,000
Defense Enterprise Fund	\$10,000,000
Arctic Nuclear Waste	\$30,000,000
Armored Blankets	\$5,000,000
Defense and Military Contacts	\$15,548,000
Total	\$754,808,000

Source: Department of Defense Office of Cooperative Threat Reduction, “Fact Sheet: US Activities Relating to Safeguarding Nuclear Weapons and Fissile material in the New Independent States , 15 Oct 1996

The Threat

In all military operations one of the first questions asked is—“What is the threat?.” Since the end of WWII the U.S. has focused its attention on the Soviet Union and its ever expanding military. The Soviet industrial base concentrated on building military equipment throughout the republics. The FSU presented a variety of threats across a wide spectrum of conflicts for our comparison we will consider Russia and the strategic nuclear

threat. During the cold-war the primary threat was considered the Soviet strategic nuclear arsenal and its delivery systems. The Soviet nuclear system consisted of long range bombers, submarine launched intercontinental missiles (SLBMs) and intercontinental ballistic missiles (ICBMs) in various configurations. The following table lists the land based strategic nuclear weapons and their delivery systems which existed just prior to the start of the CTR program. This data is unclassified and reflects information that was derived from several public sources.

Table 3. Strategic Nuclear Weapons In Former Soviet Union As Of Jan 1992

Belarus	81	SS-25 Single-warhead mobile ICBMs
Kazakhstan	104	SS-18 10-warhead silo based ICBMs
	40	Bear bombers capable of carrying 370 Air Launched Cruise missiles (ALCM)
Russia	325	SS-11 Single -warhead ICBMx
	30	SS-13 Single-warhead ICBMs
	70	SS-17 4-warhead silo based ICBMs
	140	SS-19 6-warhead silo based ICBMs
	204	SS-18 10-warhead silo based ICBMs
	50	SS-24 10-warhead silo based ICBMs
	219	SS-25 Single -warhead ICBMs
	63	Bear H models, 16 Bear G and 6 Blackjack bombers with a total of 79 launchers totaling 570 warheads
Ukraine	130	SS-19 6-warhead silo based ICBMs
	46	SS-24 10-warhead silo based ICBMs
	25	Bear bombers and 19 Blackjack bombers capable of carrying a total of 588 ALCMS

Source: Galdi,Theodor, *The Nunn-Lugar Program for Soviet Weapons Dismantlement Background and Implementation*, Congressional Research Service, 28 July, 1.

From this list it obvious that an extensive effort would be required to reduce nuclear capabilities in the FSU. Russia also has control of all the tactical nuclear weapons which were deployed in the former republics and has now repositioned them in Russia.⁵ The

total number of nuclear weapons in the FSU has been generally reported to be around 30,000 but some reports place the number as high as 45,000.⁶ This ambiguity is difficult to assess as suspicion and distrust left over from the cold war make exact accounting extremely difficult.

Notes

¹ *Cooperative Threat Reduction*, Department of Defense, April 1995.

² Smith, Harold P. Jr., "The Cooperative Threat Reduction Program: Defense by other Means," *National Security Studies Quarterly*, Summer 1996, 60.

³ U.S. General Accounting Office, Report to Congress: "WEAPONS OF MASS DESTRUCTION: Status of the Cooperative Threat Reduction Program," September 1996, 1,4.

⁴ Zesinger, Robert G., Center for Verification Research, Interview, 9 September 1996.

⁵ U.S. Congress, Office of Technology Assessment, *Proliferation and the Former Soviet Union*, OTA-ISS-605, September 1994, 60.

⁶ *Ibid.*, 60.

Chapter 4

CTR Accomplishments

CTR has provided some reduction in the threat that has faced the U.S.. The following list enumerates several of the more major results over the last four years:

- Helped in the return of over 2500 strategic warheads to Russia from the three other FSU nuclear republics.
- Helped in the deactivation of all SS-24 ICBMs and over half of the SS-19s in the Ukraine.
- Removal of 600Kg of weapons grade uranium from Kazakhstan along with the beginning of dismantlement of SS-18 missiles.
- Withdrawal of all of the 81 warheads for the SS-25 mobile ICBMs from Belarus.
- Removal of 1,200 strategic warheads from actively deployed systems.
- Elimination of 230 SLBM launchers, 445 ICBM silos, and 1,500 missiles.
- Destruction of 35 strategic bombers.¹

Through the assistance provided by CTR, a chemical weapons destruction contractor has been identified. This is the first step in the destruction process of over 40,000 metric tons of chemical weapons. However, as of September 1996 the cost the first of the planned chemical weapons destruction facilities has not been determined nor has extensive design work been accomplished.²

The program has also started the production of approximately 24,000 fissile material containers to store the weapons grade highly enriched uranium (HEU) derived from nuclear weapons. The first delivery of these containers was accomplished in December 1995 and as of August 1996, 8,150 had been delivered.³

Currently ISTCs are employing over 11,000 former weapon scientists in peaceful civilian research projects.⁴ It has been postulated that the ISTCs are being used to fund additional nuclear weapons research and that ISTC funds were essentially paying for Russian WMD modernization. It must be remembered that the Russian scientist will not forget how to build weapons and their expertise is highly marketable. While modernization is probably taking place, it must be mentioned that the U.S. is also continuing its research efforts. Neither the Russians or the U.S. have agreed to become non-nuclear, therefore any peaceful diversion of weapon scientists and capabilities is a move in the right direction.

Progress in bomber elimination has been relatively slow. The total number of Russian bombers decreased from 95 in 1994 to 85 as of May 1996.⁵ The current inventory consists of 63 Bear-H, 6 Blackjack and 16 Bear-G Bombers.⁶

In addition, if one were to compare the weapon systems list in Table 3 above with those listed in Table 4 below, it can be seen that some significant change has occurred.

Table 4. Strategic Nuclear Weapons In Former Soviet Union As Of Jan 1992

Belarus	81	SS-25 Single-warhead mobile ICBMs
Kazakhstan	0	SS-18 10-warhead silo based ICBMs
	0	Bear bombers
Russia	0	SS-11 Single -warhead ICBMx
	0	SS-13 Single-warhead ICBMs
	0	SS-17 4-warhead silo based ICBMs
	167	SS-19 6-warhead silo based ICBMs
	180	SS-18 10-warhead silo based ICBMs
	46	SS-24 10-warhead silo based ICBMs
	351	SS-25 Single -warhead ICBMs
	63	

Table 4—continued

Ukraine	0	SS-19 6-warhead silo based ICBMs
	0	SS-24 10-warhead silo based ICBMs
	25	Bear bombers and 19 Blackjack bombers capable of carrying a total of 588 ALCMS

Source: *Nuclear Successor States of the Soviet Union*, May 1996, P 9-18.

The movement of nuclear warheads is an extremely sensitive and political event. A recent Washington times article claims that the last of the nuclear warheads from Belarus have been transferred back to Russia as of 23 November 1996.⁷ However, unconfirmed reports indicate that Belarus will keep the missiles and the SS-25 launchers.⁸ This action, if true, may provide serious problems later when the republics try to conform to arms reduction treaties.

Where Do We Go From Here?

Clearly, it can be seen that CTR has provided some quantifiable results in delivery systems and infrastructure. However, the U.S. has yet to see one nuclear warhead dismantled or destroyed. Verified destruction of warheads is the true test of reduction in overall proliferation threat. One can easily understand that a nuclear warhead detonated in the World Trade Center building in New York city, or in a capital city is the greatest threat from the nuclear arsenal of the FSU. To be fair though, CTR was never commissioned to destroy individual warheads. It is also doubtful that Russia would ever allow the U.S. to participate in the actual destruction of warheads. The question is, should this process continue? The answer is in the Russian Republic.

It is no secret that the Russian economy is a mess and the role that organized crime plays in everyday operation of Russian business is increasing. The U.S. should be concerned that these organized rings could obtain and sell HEU, nuclear research

equipment or even technical data. We must also realize that Russia is the largest country on earth in terms of land area and that we can not hope to solve their crime, unemployment, or security problems. Simply look at the US and the problems we have in controlling our own crime and drug smuggling. However, a fully integrated approach to the WMD problem will **help** with the proliferation problem and the Russians want our help. By applying diplomatic pressure on aspiring nuclear states, intelligence sharing, arms control agreements, export controls, security assurances, and with programs like CTR we can slow the proliferation process. As we work with the Russians we must also encourage them to apply pressure on their former client states to resist the temptation of entering the nuclear club.

We must not think that only the U.S. is a possible target for nuclear blackmail. The Russians are located in a historically unstable area of the world. One need only look at the problems in Chechnya, Georgia, or Afghanistan, to recognize that these areas are ripe for anti-Russian action which could mean use of WMD. The Russians are rightfully concerned about “loose nukes” or nuclear smuggling to unfriendly countries.

Nuclear Smuggling

Russian security measures at its nuclear facilities are inadequate when compared to U.S. standards. Most of their security measures center on having armed guards and locked areas.⁹ In general, radiation detectors and monitors screening personnel going in or out of facilities are missing. Research scientist or workers who are underpaid if they are paid at all are certainly excellent targets for bribes or conduits for organized crime. There have been numerous reports of nuclear smuggling but most of these have not been

weapons grade materials. According to one Congressional Research Service report, “Most nuclear smuggling involves reactor-grade materials or laboratory sources,” not weapons grade material.¹⁰ That same report went on to conclude that none of the discovered cases of smuggling contained enough weapons-grade materials to make a nuclear weapon. It takes less than 8kg. of plutonium and less than 25kg. HEU to make a small yield bomb.¹¹ It is also important to note that a certain level of technical sophistication must be present to manufacture such a weapon with such small quantities. However, for rogue countries or terrorist which have access to technical sophistication it can be seen that even small quantities of nuclear material can result in deadly consequences. Of course, the Russian officials who manage the nuclear programs deny that their security programs are porous.¹² Consequently, no one knows for sure if materials, knowledge, and technology has been smuggled, one can only speculate.

The Russian nuclear program is enormous and trying to assess the quantity of nuclear materials in the FSU is difficult. Many different organizations in Russia have access to nuclear material; the military, Ministry of Atomic Energy (MINATOM), various research facilities and of course numerous nuclear power facilities. Dismantlement of nuclear weapons will provide even more HEU which must be controlled and disposed of. CTR efforts to enhance security of nuclear weapons storage is ongoing and includes providing equipment and training for automated inventory management systems. Additionally, new projects to enhance physical security have been proposed.¹³ This has been a particularly sensitive area which has been complicated by a need to work out transparency measures both accounting for our assistance and ensuring that it is used as intended.¹⁴

CTR programs to increase security and provide meaningful paying jobs for workers may not stop smuggling activities, but it certainly is better than complaining to the Russians and doing nothing.

Associated Efforts

Another effort in the reduction of the proliferation threat is the purchase of 500 metric tons of HEU from Russia by the United States Enrichment Corporation (USEC).¹⁵ This HEU will be converted to low enriched uranium (LEU) to power U.S. nuclear power reactors. Although this is not part of the CTR program, it certainly is part of an integrated approach to the problem of proliferation of nuclear material. The U.S. will need the LEU, in any event, to power its nuclear power facilities, so it makes sense to purchase it from the Russians thus reducing the opportunities for diversion. For various reasons, this operation has been slow to get moving and the U.S. should seriously consider directly purchasing as much HEU as possible to prevent diversion. The cost associated with the additional purchases are certainly cheaper than dealing with a nuclear incident by unfriendly entities. This process would provide additional benefits to the Russian economy. The influx of hard currency would also create an incentive to accelerate the dismantlement of nuclear weapons.

Notes

¹ Perry, William J., *Annual Report to the President and the Congress*, Office of Secretary of Defense, March 1996,67. Editorial, "Belarus gives up nukes, keeps missiles," The Washington Times, 26 November 1996, 11.

² Editorial, "Belarus gives up nukes, keeps missiles," The Washington Times, 26 November 1996,4.

³ Department of Defense Office of Cooperative Threat Reduction, "Fact Sheet: US Activities Relating to Safeguarding Nuclear Weapons and Fissile Material in the New Independent States (NIS)," 15 October 1996,4.

Notes

⁴ Perry, William J., *Annual Report to the President and the Congress*, Office of Secretary of Defense, March 1996,68.

⁵ *Nuclear Successor States of the Soviet Union*, Cooperative project of Monterey Institute of International Studies, Monterey, Ca., Carnegie Endowment for International Peace, Washington, DC, Number 4, May 1996, 14.

⁶ *ibid.*

⁷ Editorial, "The First Line of Defense," *The Washington Post*, 19 July 1994,11.

⁸ *ibid.*

⁹ Davis, Zachary S., Jason D. Ellis, *Nuclear Proliferation: Problems in the States of the Former Soviet Union*, Congressional Research Service, 26 October 1995, 7.

¹⁰ *ibid.*

¹¹ *ibid.*,9.

¹² *ibid.*,8.

¹³ Department of Defense Office of Cooperative Threat Reduction, "Fact Sheet: US Activities Relating to Safeguarding Nuclear Weapons and Fissile Material in the New Independent States (NIS)," 15 October 1996, 4.

¹⁴ *ibid.*

¹⁵ Allison, Graham, Owen R. Cote' Jr., Richard A. Falkenrath, Steven E. Miller, *Avoiding Nuclear Anarchy*, Center for Science and International Affairs, John F. Kennedy School of Government, Harvard University, 1996, 229.

Chapter 5

Analysis

It is obvious that the CTR has helped to reduce the number of weapon delivery systems. The question that must be answered now is, “will a continuation of the CTR program serve U.S. interests?” The economic condition in the FSU is still uncertain and it is clear that they do not have the resources needed to continue the dismantlement process in a timely manner. Even the Russian army is in danger of losing its firm foundation, morale and living conditions are rapidly deteriorating. Recent newspaper articles quote former Defense Minister Grachev as saying the “government owes the army \$5.5 billion including \$1.1 billion in back pay.”¹ There are even reports of near starvation of army units. Mutiny of army units would have serious implications that could result in a complete collapse of the current government. If the Russians were to concentrate funding on the dismantlement process, it would probably result in other parts of their economy collapsing or failing to recover. Further decline of the Russian economy could be disastrous. A return to communism, a civil war, or anarchy and chaos would provide a very unstable situation in which all parties lose.

As former adversaries, total cooperation is very difficult to achieve and every effort to diplomatically work out disagreements is essential. To build trust between countries the discussions and interactions must be across the spectrum not just in the defense arena.

Building a cooperative relationship with Russia will certainly take time and political commitment. Our relationship with Russia may never achieve the solidarity that we have with other western countries but we must have a relationship that can work through disagreements. Russia is a proud country and will not allow the US to dictate terms on trade, defense, technologies or ideological issues. We must be careful and allow Russia to develop its democratic institutions, ideas and provide assistance when possible. We invested heavily in Europe after W.W.II because it was in our best interest, defense wise and economically. Today, we are at a crossroads, we must recognize it is certainly in our best interest to invest in the future of Russia.

Western investment in Russian by commercial companies is one of the keystones to conversion from a command economy to a free market society. The U.S. and other western countries should explore incentives for commercial investment in Russia. This could possibly be done through country to country negotiations for tax breaks, customs exemptions, and other incentives. No single approach will lower the proliferation threat, but an integrated approach by governments through projects like CTR and commercial investments may make a difference.

CTR certainly influenced Belarus, Kazakhstan, and Ukraine to give up their nuclear weapons and accept the Nuclear Non-proliferation Treaty.² The CTR effort also has kept the republics ahead of schedule in meeting Strategic Arms Reduction Treaty (START I) requirements and all of this is in line with American interests. Additionally, American effort must be seen not only in the republics but in the nuclear want-to-be states. This sends the appropriate message that we are not only trying to reduce super power tension but that we will help those states who reject nuclear weapons.

The cost of the CTR program is minuscule when it is compared to the \$4 trillion that the U.S. spent during the past fifty years of the cold-war.³ What is a single nuclear weapon worth? Consider the cost of one nuclear bomb detonated in Jerusalem. The human costs would be astronomical not to mention the difficulties that would develop in the aftermath. First year operations in Bosnia have been estimated to be \$1 billion and Bosnia can not launch a single nuclear weapon at the U.S or our allies.⁴ Likewise operations in Haiti have been estimated to be \$2 billion a year and growing.⁵ Reducing the threat of nuclear proliferation is important but it is a by-product of reducing the nuclear capability which has been aimed at the U.S. for years. Increased funding to assist in additional secure storage facilities along with extra funding for procurement of HEU derived from weapons certainly should be considered. Although not addressed in any depth in this paper some intense efforts are required to address the chemical weapons destruction and storage problems in Russia. CTR certainly provides an appropriate vehicle to assist the Russians in their chemical demilitarization effort.

Admiral Prueher, CINCPACOM in his testimony before the Senate during posture hearings said, "We have already reaped tremendous benefits from this rather modest investment. As we continue to engage the Russian military leadership, we expect even more benefits. Continued funding of this program is essential." It has been postulated that only nuclear weapons can destroy the U.S.. Therefore, the cost associated with CTR is a very small investment while the potential impact is enormous. The program is certainly a worth while "defense by other means."

Notes

¹ Sief, Martin, "Unpaid and near Collapse, Red Army Sours on Yeltsin," Washington Times, 25 September 1996, 1.

Notes

² Smith, Harold P. Jr., "The Cooperative Threat Reduction Program: Defense by other Means," *National Security Studies Quarterly*, Summer 1996, 61.

³ Henry L. Stimson Center, *An Evolving US Nuclear Posture*, Second Report of the Steering committee Project on Eliminating Weapons of Mass Destruction, December 1995, 5.

⁴ Matthews, William, "Paying for Peacekeeping (in Bosnia) is the Question," *Air Force Times*, 9 October 1995, 23.

⁵ Allison, Graham, Owen R. Cote' Jr., Richard A. Falkenrath, Steven E. Miller, *Avoiding Nuclear Anarchy*, Center for Science and International Affairs, John F. Kennedy School of Government, Harvard University, 1996.

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