uring the Cold War, I supported the expenditure of billions of dollars by the United States on defense and military forces to oppose Soviet forces. As a member of the Senate Foreign Relations Committee, and as its chairman, I supported a strong

US policy of containment vis-a-vis the Soviet Union.

When the Soviet Union collapsed almost eight years ago, a new era in world history began. Many suggested that the dangers of nuclear war had been dispelled by the dissolution of the Soviet Union. As America's former adversary began to move toward democracy and a market economic system, many suggested that peace had been secured for our time.

VIEWPOINT: THE THREAT OF WEAPONS OF MASS RESPONSE

by Richard G. Lugar

DESTRUCTION: A US

tures, and they are insecure and leaking. Russia's threat to the United States today is generated by its weakness. The Russian military has deteriorated greatly since 1991. Russian military leaders fail to receive even half of their budget requests. Stories of Russian soldiers unpaid for months on end and without food rations are commonplace. Incidents involving desertion and suicide run rampant throughout the Russian military forces. Reports indicate that many units have sold valuable military equipment for currency. Others point to a barter system in which troops trade equipment and ammunition for food. In some cases troops

own. Indeed, the defining danger of proliferation is not

Iran's purchase of civilian nuclear reactors that may as-

sist Iranian nuclear ambitions a decade hence. It is the

threat, today or tomorrow, that Iran, Libya, or Hamas will purchase nuclear, chemical, or biological weapons

military.

or delivery vehicles from

some fragment of the current or former Russian

Let us be clear: from the

perspective of US national

interests. Russia is still

very important; it is the

only nation capable of

eliminating life in the

United States. This threat

lies in Russian nuclear.

chemical, and biological arsenals and infrastruc-

Similar conditions afflict Russia's scientific community and the facilities where nuclear, chemical, and biological weapons and material have been manufactured and stored. Russian scientific institutions are experienc-

have left valuable military equipment in the field unprotected and unguarded as the unit forages for food.

Dick Lugar is a United States Senator from Indiana. He is the senior Republican member of the Senate Foreign Relations and Senate Intelligence Committees. Parts of this viewpoint were adapted from testimony the Senator delivered to the Emerging Threats Subcommittee of the Senate Armed Services Committee and the Commission to Assess the Organization of the United States Government to Combat the Proliferation of Weapons of

Mass Destruction.

Instead, nearly eight years later, we face a world that is more turbulent, unpredictable, and, in some respects, more violent than the one we left at the beginning of this decade. The hopes of the early 1990s for enduring peace have given way to the reality of disorder and conflict.

During the Cold War, the United States co-existed with the Soviet Union in an environment characterized by the risk of total nuclear annihilation. But, because of the unthinkable consequences of total nuclear war, the probability of a ballistic missile exchange between the superpowers at any given moment was low. Since the end of the Cold War, even as the threat of massive nuclear exchange has mercifully declined, the probability that one or several weapons of mass destruction might be used to attack the American homeland, US forces abroad, or some other country embroiled in regional conflict has increased.

As a consequence of the collapse of the Soviet totalitarian command and control society, a vast supermarket of weapons and materials of mass destruction has become accessible. The disintegration of the Soviet Union and the subsequent decay of the custodial system guarding the Soviet nuclear, chemical, and biological legacy have eliminated a previous set of barriers to proliferation. Rogue states and terrorist groups no longer need their own Manhattan Project; they can now seek to buy or steal what they previously had to produce on their ing severe strain. Dismal conditions exist in the nuclear cities and biological institutes across Russia. These weapons scientists and engineers often are not paid. In some cases their government has abandoned them entirely.

Because desperate people do desperate things, we should pay attention to any region of the world where hunger and economic hopelessness are prevalent. But when desperate people have access to weapons of mass destruction, we must do more than pay attention. Those of us in the United States government must approach the problem with the same focus and seriousness of purpose with which we approached the Cold War.

PREVENTING AND INTERDICTING PROLIFERATION AT ITS SOURCES

I approach the response to these threats to American and world security through the prism of a defense in depth. There are three main lines of defense against emerging threats posed by the potential spread of ballistic missiles and weapons of mass destruction. The first line of defense is preventing proliferation at its potential sources abroad. The second is deterring and interdicting the flow of illicit trade in these weapons and materials. The third line of defense involves the response if an attack does occur. This runs the gamut from domestic preparedness to missile defenses. The United States needs to do more in all of these areas.

As the Soviet Union began to break apart in 1991, mutual acquaintances on the Russian side, including some from the military, came to former Senator Sam Nunn of Georgia and me and pointed out the dangers of the dissolution of a nuclear superpower. The viability of their entire weapons custodial system was in doubt. Hundreds of tons of nuclear weapons material were spread across multiple sites in Russia and other former Soviet states. Russian leaders requested our cooperation in securing and protecting Russia's nuclear arsenal and weapons-usable materials. This was the genesis of the Nunn-Lugar Cooperative Threat Reduction program.

While much more remains to be done, the Nunn-Lugar scorecard is impressive. Nunn-Lugar has facilitated the destruction of 364 ballistic missiles, 343 ballistic missile launchers, 49 bombers, 136 submarine missile launchers, and 30 submarine-launched ballistic missiles. It also has sealed 191 nuclear test tunnels. Most

notably, 4,838 warheads that were on strategic systems aimed at the United States have been deactivated.

To put this into perspective, Nunn-Lugar has dismantled more nuclear weaponry than Great Britain, France, and China currently possess in their stockpiles and arsenals combined. All of this work has been done at a cost of less than one-third of one percent of the annual US defense budget.

Last year, the world was alarmed to learn that India and Pakistan had tested nuclear weapons. The nuclear aspirations of regional powers and rogue nations highlight the important decisions made in Ukraine, Kazakhstan, and Belarus. When the Soviet Union collapsed, these three states became the third, fourth, and eighth largest nuclear powers in the world. The addition of three more nuclear weapon states would have completely changed the geostrategic landscape.

Without Nunn-Lugar, Ukraine, Kazakhstan, and Belarus would still have thousands of nuclear weapons. Instead, all three countries are nuclear-weapon-free. I am proud of the role the United States played in their decisions and the role of the Nunn-Lugar program in facilitating the removal of thousands of nuclear warheads.

The key to the Nunn-Lugar program's success is its flexibility to adjust to different threats. In addition to the daily activities of cutting up bombers, blowing up silos, and turning submarines into razor blades, it has undertaken several previously classified missions to thwart the proliferation goals of rogue states. Project Sapphire is probably the best known. In November 1994, two US C-5 cargo planes removed enough highly enriched uranium to make 20 to 30 nuclear weapons from northeast Kazakhstan. This operation was launched to prevent nuclear material from falling into the hands of Iranians who had attempted to acquire it.

Another mission occurred last year when the United States purchased 21 nuclear-capable MiG-29Cs from Moldova. These fighter aircraft were built by the former Soviet Union to launch nuclear weapons. The United States was able to prevent these advanced aircraft from falling into the hands of Iranians. These planes were not destroyed, but were instead disassembled and shipped to Wright Patterson Air Force Base because they can be used by American experts for research purposes. Our military is anxious to study the MiG-29C to learn its

capabilities and limitations for operational purposes if and when our country is ever threatened by such aircraft.

Nuclear weapons are not the only proliferation threat from the arsenals created by the Soviet Union. During the Cold War, the United States and the Soviet Union manufactured enormous stockpiles of chemical weapons. The Russian stockpile is stored in seven sites across that country and the security surrounding it is being degraded by the Russian economic crisis. We cannot permit these weapons to be stolen or sold to the highest bidders. This material was produced for one purpose: to kill American soldiers, airmen, and marines.

Nunn-Lugar is addressing this threat. It will begin construction of Russia's first chemical weapons destruction facility at one of their largest storage sites, where 5,500 metric tons of VX and other nerve agents are stored in artillery rounds. We hope the Nunn-Lugar destruction plant will be completed by 2003. When operational, it will be capable of destroying 500 metric tons of chemical weapons per year.

In addition to chemical weapons destruction, Nunn-Lugar is also dismantling the facilities that produced the chemical weapons. Two years ago, I spent a Saturday morning in the Kremlin studying maps of the Volgograd chemical production plant. Volgograd was one of the largest chemical weapons production facilities in the world. Our discussion revolved around the extent to which American and other foreign chemical companies would be encouraged to invest in the facility. I pointed out that there is one important condition to Western investments, and that is the cessation of weapons production. The Nunn-Lugar program will remove and dismantle those pieces of machinery capable of weapons production to ensure that this factory never again produces weapons of mass destruction.

Over the last few years, we have begun to learn more and more about the former Soviet biological weapons program. It is clear that the products of this program still threaten the world today. The Nunn-Lugar program is seeking to address this threat. Last November, in the first such meeting of its kind, Senator Carl Levin of Michigan, former Senator Nunn, and I engaged in a three-hour discussion with the directors of 13 former civilian biological weapons facilities from across Russia. These men were intimately involved in the Soviet biological weapons program.

They communicated their current predicament, involving unpaid wages and abandonment by Moscow, and their hopes of entering into cooperative relationships with their counterparts in the West. Nunn-Lugar is currently engaged in eight pilot projects at these civilian biological research institutes. These cooperative efforts must continue and expand to prevent the emigration to undesirable locations of the finest minds who have been involved in the most deadly weapons programs.

We also visited Obolensk, the premier biological weapons research and development institute on the bacterial pathogens plague, tularemia, and glanders, as well as the world's leading anthrax research institute. Today, through Nunn-Lugar, the scientists at Obolensk are cooperating in vaccine research with the United States Army and Los Alamos National Laboratory. We were given complete access to the facility: we examined the laboratories, saw various culture facilities, and observed Nunn-Lugar pilot projects. Unfortunately, we had not received the requisite inoculations to enter the third floor—one of the largest biological and pathogen-strain libraries in the world. Obolensk has on file hundreds, if not thousands, of biological pathogens deadly to human beings.

During our visit, the director of Obolensk pointed out that, without collaborative efforts with the West, he is convinced that institute security will fall to dangerous levels. It is clear that we must not allow unapproved access to this facility. We discussed plans to enhance security for biological weapons materials at Obolensk and for an equally dangerous situation at an institute in eastern Siberia, which we call Vector.

The need for Nunn-Lugar to expand work in the biological field is clear. The United States must continue to work to ensure that biological weapons research is halted in the former Soviet Union. Furthermore, we must attempt to prevent proliferation and reduce the loss of trained biological scientists to rogue nations. We also must increase transparency in these facilities to enhance American military protection and counterterrorism capabilities. The best way to accomplish these goals is to increase our activities and access to these facilities through Nunn-Lugar.

These weapons scientists and engineers are often not paid. In some cases, their government has abandoned them. We are working with people whose lives were devoted to the study of organisms that are meant to kill people on a massive scale. Our programs will not be perfect. The sheer size and scope of our endeavors will negate the possibility of a perfect batting average in this regard. But we must get into the game. Of the thousands of people involved in these programs we may lose some. Some may emigrate to rogue nations and continue their former work. But it is in the interest of our military and of people around the world for the United States to do everything in its power to reduce these threats.

The second line of defense against these threats involves efforts to deter and interdict the transfer of such weapons and materials at far-away borders. Nunn-Lugar and the US Customs Service are working at the borders of former Soviet states to assist with the establishment of export control systems and customs services. In many cases, these nations have borders that are thousands of miles long. Local governments often do not have the infrastructure or ability to monitor, patrol, or secure them. These borders are particularly permeable, including points of entry into Iran on the Caspian Sea, and into other rogue nations.

We must continue to plug these porous borders abroad. These nations are seeking our help, and it is in US interests to supply it. Secure borders in this region of the world would strengthen our second line of defense and serve as another proliferation chokepoint.

CRITICISMS OF NUNN-LUGAR MISS THE POINT

Let me take a moment to dispel several myths about the Nunn-Lugar program:

- (1) Nunn-Lugar is not foreign aid. It is not charity. It utilizes American firms to dismantle former Soviet weapons. Eighty-four percent of Nunn-Lugar funds have been awarded to American firms to carry out dismantlement operations in the former Soviet Union. There are no blank checks being sent to Moscow.
- (2) Nunn-Lugar is not lining the pockets of Russian organized crime leaders, nor does it end up in Swiss bank accounts. To ensure that Nunn-Lugar funds are being utilized for the proper purposes, over 70 audits and examinations by the General Accounting Office, the Congressional Budget Office, and independent, private firms have been completed. They all report that funds are being used for approved dismantlement operations. Over the life of the program, that means nearly 10 audits have been performed per year.

- (3) Some suggest that certain weapons systems may just rot and decay due to a lack of maintenance, and thus it is a waste of money to dismantle them. However, I'm not willing to bet lives on that fact. Some cite Russian strategic nuclear submarines as an example of systems that are being dismantled although they are already in disrepair. The critics are correct that many of these submarines will never go to sea again. The Typhoon missile submarine will never again lie off America's eastern seaboard. Unfortunately their seaworthiness has little to do with the current threat they pose to the United States. These submarines do not have to submerge or go to sea to launch 200 warheads at the United States. They are able to do so in their current location, tied up at the docks.
- (4) US dismantlement efforts are not assisting Russia in nuclear modernization. Although the dismantlement program provides equipment for removing or cutting up missiles, submarines, and bombers, it does not enable a Russian force buildup or modernization program. In short, it is difficult to imagine how a power saw provided by Nunn-Lugar to cut up Russian strategic bombers can be used to modernize the Russian strategic nuclear force.
- (5) I have heard some suggest that Nunn-Lugar only makes sense if Russia maintains parity in the obligation of resources to dismantlement operations. Tell that to American personnel (or innocent civilians around the world) who might face these weapons in the hands of terrorists or rogue states. Obviously, we would prefer to spend as little as possible, and we should push for Russian monetary or in-kind contributions. But we must not allow this to stop our important work. If the result of debates over cost is that weapons remain on station and a threat to the United States or others, we will have missed an extraordinary opportunity. Contributions to dismantlement operations pale in comparison to expenditures to purchase and maintain weapons systems needed to deter these inherited Soviet weapons.

ENHANCING US DOMESTIC PREPAREDNESS

Efforts to stop proliferation at its potential sources in the former Soviet Union and to interdict and deter attempted acquisition represent the first and second lines of defense against the threat of weapons of mass destruction. But the United States has been developing a third and final line of defense as well. This is our preparation to deal with any attacks that do occur.

Domestically, the United States is not yet prepared to manage a crisis generated by the threatened use of such weapons or to manage the consequences of their actual employment against civilian populations. That preparation must take the form of help to local "first responders"—firemen, police, emergency management teams, and medical personnel who will be on the front lines if deterrence and prevention of such incidents fail.

Providing such help is the purpose of the 1996 Nunn-Lugar-Domenici "Defense Against Weapons of Mass Destruction" Act. This law directs professionals from the Department of Defense, Federal Bureau of Investigation, Department of Health and Human Services, the Federal Emergency Management Agency, and others to join in partnerships with local emergency professionals in cities across the country. The Pentagon intends to supply training and equipment to 120 cities across the United States during the next four years. To date, 55 metropolitan areas have received training to deal with these potential threats.

In February 1998, the Nunn-Lugar-Domenici Domestic Preparedness Program visited my home town of Indianapolis and Marion County, Indiana. Six hundred fifty "first responders" received training to respond to nuclear, chemical, and biological incidents. Since that time, thousands of additional professionals have received instruction through Nunn-Lugar-Domenici's "train-the-trainer" program.

In late 1998, Indianapolis and other locations in the Midwest were confronted with the threat of weapons of mass destruction. I was relieved to learn that the threatened use of anthrax at Planned Parenthood clinics in Indianapolis, at St. Matthews Catholic Church, and elsewhere had been determined to be false. I was proud to see the professional manner in which the city's first responders reacted to the threat and treated the potential victims. It had been my hope that the expertise and experience gained from the Nunn-Lugar-Domenici program would never have to be put to use, but I am thankful for the expert response the people of Indianapolis and Marion County received from our first responders.

One part of the Nunn-Lugar-Domenici Act that the Clinton administration overlooked for some time was the need for better coordination of our nonproliferation and counterproliferation initiatives. Proliferation must be recognized as a broad national security problem in need of a permanent coordinating mechanism that can establish an overall strategy and direct the actions of and resolve conflicts between the departments and agencies that will execute the strategy. What is lacking is a comprehensive US government approach to addressing these transnational threats. The US government needs a "quarterback" for these transnational issues.

In 1996, Senators Nunn, Domenici, and I advocated the creation of a national coordinator for nonproliferation and counterproliferation policy in order to provide a more strategic and coordinated vision and response. Our Senate colleagues agreed. They gave us their unanimous support. I believe that need still exists today.

This section caused some concern among colleagues both in the Executive branch and Congress. Some suggested that the legislation of a coordinator amounted to congressional micro-managing of the Office of the President, that it cuts down on the president's flexibility to organize his office and the NSC as he sees fit.

To a certain extent, that was true. But we sought to elevate the political responsibility and accountability for responding to these dire threats to the highest possible political level while at the same time providing for an element of continuity that transcends individual administrations. We cannot afford policy lapses in the effective implementation of our nonproliferation policies as we transition from one administration to another. We moved in the direction of the coordinator because we believed we could no longer afford "business as usual" in the formulation and implementation of our nonproliferation and counterproliferation policies.

Two years after the Nunn-Lugar-Domenici legislation passed the Senate, President Clinton took a partial step in the right direction. In May 1998, President Clinton announced the appointment of a National Coordinator for Security, Infrastructure Protection, and Counterterrorism. This coordinator is in charge of integrating the government's policies and programs on unconventional threats to the homeland, including domestic preparedness programs under the Department of Defense, Department of Justice, Department of Health and Human Services, etc.

Unfortunately, the portfolio does not go as far as it should. One-third of the US response to the threat of weapons of mass destruction is being coordinated under this new office, but the rest is not. US programs to prevent proliferation at the source and at the border are not linked organizationally or conceptually to domestic preparedness here at home. This is a mistake.

In my opinion, the domestic preparedness coordinator has had a dramatic impact on our efforts in this area. In the early days, these programs suffered growing pains and complaints regarding their implementation. The coordinator has helped focus efforts on the needs of American cities. The upcoming hand-off of the domestic preparedness training program from the Department of Defense to the Department of Justice and the establishment of the National Domestic Preparedness Office appear to be steps in the right direction. In other words, these programs have been given the structure and organization needed to meet the needs of first responders. These dramatic steps forward were made possible by an organized and coordinated structure.

I believe we need a similar undertaking in the nonproliferation and counterproliferation areas. We must have a seamless policy and program response to the threat of weapons of mass destruction. A US response that suffers from gaps and turf battles permits potentially threatening weapons and culprits to slip through our defenses to the detriment of the American people and the whole world.

COOPERATIVE THREAT REDUCTION AS A US NATIONAL INTEREST

As I have explored the threat of proliferation of weapons of mass destruction, one point has become increasingly clear. If the United States is to have any chance of stopping the detonation of a weapon of mass destruction on its soil, prevention and deterrence must start at the source—the weapons and materials depots and research institutes of the former Soviet Union. Only by shoring up the first two lines of defense abroad can we hope to prepare successfully for the threat at home. We must eliminate these weapons and materials so that they do not become an "emerging threat" in the hands of a terrorist or rogue state. This is what an integrated defense-in-depth against this threat is all about.

Dangerous activities still proceed in Russia. But would we rather be working in the Russian missile fields, submarine bases, and biological facilities, interacting with their engineers and scientists, or would we rather be outside, wondering what was going on? We must be on the inside. Each day that we work with these institutes and their scientists, we learn more about the weapons and toxins our soldiers, our citizens, and the citizens of our friends and allies may face in the future.

The administration's plans to increase funding for Nunn-Lugar and its companion programs by some 65 percent over the next five years is a testament to the program's value and its contributions to US national security. The reason for these increases is clear. Conditions in Russia are worse. The Russian economic collapse in August 1998 exacerbated many problems.

The fundamental question is whether there exists sufficient political will, particularly in the Congress, to devote requisite resources to these programs. If we are not willing to devote the requisite resources, the time, and the international leadership necessary to controlling, regulating, and otherwise circumscribing this threat, then the task of defense at home is made far more difficult and probably ultimately impossible.

I believe the United States has a window of opportunity to reduce the threat of former Soviet weapons of mass destruction. We cannot afford to squander this opportunity. Historically, no great military power has ever possessed the opportunity to work with a former adversary in removing the threat that confronts them. Bipartisan vision, statesmanship, and patience will be required over many years. For the sake of our children and our hopes for normal life in our country, we must be successful.