



# BI-WEEKLY TREATY REVIEW



22 November 2012 – 05 December 2012

**DTRA**

## ARMS CONTROL (GENERAL)

### **Obama Underscores Need for Further Progress to Reduce Nuclear Dangers**

*Arms Control Now*, 04 December 2012, <http://www.armscontrol.org>

In his first foreign policy-related address since his reelection, on Monday, December 3, President Obama praised the architects of the highly-successful Nunn-Lugar Cooperative Threat Reduction Program, he reaffirmed his commitment to the action plan toward a world without nuclear weapons, and he underscored his commitment to achieve further progress to reduce the threats posed by nuclear, chemical, and biological weapons. (1,658 words)

[Click here for full text.](#)

## CHEMICAL WEAPONS CONVENTION (CWC)

### **Russia, U.S. Press toward Full Chemical Arms Elimination**

*Nuclear Threat Initiative*, 30 November 2012, <http://www.nti.org/gsn>

The United States and Russia this week touted progress toward full elimination of their world's-largest stockpiles of chemical warfare materials. (858 words) [Click here for full text.](#)

### **UN Secretary General and OPCW Director Urge States to Join CWC without Delay**

*Organization for the Prohibition of Chemical Weapons*, 27 November 2012, <http://www.opcw.org>

The United Nations Secretary-General, Mr. Ban Ki-moon, and the OPCW Director-General, Mr. Ahmet Üzümcü, have addressed a joint communication to the heads of State or Government of each of the eight states that are not Parties to the Chemical Weapons Convention. (275 words)

[Click here for full text.](#)

## COMPREHENSIVE NUCLEAR TEST-BAN TREATY (CTBT)

### **Satellites Could Detect Nuclear Tests**

*Science Now*, 30 November 2012, <http://news.sciencemag.org>

Even when they're underground, nuclear tests can be detected in the skies – and as a result, global satellite networks could become a powerful new tool in the arsenal of weapons to help detect clandestine underground nuclear explosions, a team of scientists reported here today at the fall meeting of the American Geophysical Union. (1,079 words) [Click here for full text.](#)



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## COOPERATIVE THREAT REDUCTION (CTR)

### **Obama Hails Nunn-Lugar Efforts to Secure Nukes**

*Associated Press, 03 December 2012, <http://www.ap.org>*

Hailing two decades of efforts to help the former Soviet Union secure nuclear weapons stockpiles, President Barack Obama said Monday that the world must continue to stand guard against nuclear threats – including terrorists who seek to gain control of nuclear weapons.

(467 words) [Click here for full text.](#)

### **Nullifying Nunn-Lugar: the End for America's and Russia's Disarmament Pact?**

*Army Technology, 22 November 2012, <http://www.army-technology.com>*

Few issues show up the two sides of U.S.-Russian relations more than the question of nuclear nonproliferation and little polarizes those differences better than the Nunn-Lugar agreement. Now, for the first time since the collapse of the Soviet Union, the message from Moscow is that Russia will not renew a two decade old treaty credited with the dismantling of more than 7,500 nuclear warheads. (769 words) [Click here for full text.](#)

## NEW STRATEGIC ARMS REDUCTION TREATY (NST)

### **New START Treaty Aggregate Numbers of Strategic Offensive Arms**

*U.S. Department of State, 30 November 2012, <http://www.state.gov>*

[The] data in this Fact Sheet comes from the biannual exchange of data required by the treaty. It contains [the] data declared current as of September 1, 2012. Data [is] updated each six month period after [the treaty's] entry into force. (228 words) [Click here for full text.](#)

## FULL TEXT OF BI-WEEKLY ARTICLES FOLLOWS:



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In his first foreign policy-related address since his reelection, on Monday, December 3, President Obama praised the architects of the highly-successful Nunn-Lugar Cooperative Threat Reduction Program, he reaffirmed his commitment to the action plan toward a world without nuclear weapons, and he underscored his commitment to achieve further progress to reduce the threats posed by nuclear, chemical, and biological weapons.

While Obama did not break new ground, his remarks are an important signal to his national security team, the Congress, the American public, and the world that he intends to complete unfinished nuclear risk reduction tasks that he set out in his historic Prague address in April 2009.

In the speech, which capped a day-long conference titled “Nunn-Lugar Cooperative Threat Reduction: Partnering for a More Secure World” at the National Defense University, Obama praised former Senator Sam Nunn (D-Georgia) and Dick Lugar (R-Indiana) for their visionary and bipartisan leadership to conceive of and support the program.

Begun in 1991, the program has deactivated over 7,600 warheads and destroyed over 900 intercontinental ballistic missiles. It has dismantled 33 submarines that carried nuclear weapons and 155 bombers. It also has funded security measures to safeguard facilities housing weapons of mass destruction and destroy chemical and biological weapons.

However, the President said, “...even with all your success – the thousands of missiles destroyed, bombers and submarines eliminated, the warheads that have been deactivated – we’re nowhere near done. Not by a long shot. And you all know this. There’s still much too much material – nuclear, chemical, biological – being stored without enough protection. There are still terrorists and criminal gangs doing everything they can to get their hands on it.”

“And make no mistake,” Obama said, “if they get it, they will use it; potentially killing hundreds of thousands of innocent people, perhaps triggering a global crisis. That’s why I continue to believe that nuclear terrorism remains one of the greatest threats to global security. That’s why working to prevent nuclear terrorism is going to remain one of my top national security priorities as long as I have the privilege of being President of the United States.”

Significant progress has been achieved to lock-down vulnerable nuclear material worldwide, but the to-do list is long, it’s underfunded, and it’s unfinished, as the [March 2012 \[Arms Control Association and Partnership for Global Security \(ACA-PGS\) Report\]](#) on the 2010 and 2012 Nuclear Security Summits explains.

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One key step that Congress could take in the bipartisan tradition of Nunn-Lugar would be to finally approve the implementing legislation for two nuclear terrorism prevention conventions: the International Convention for the Suppression of Acts of Nuclear Terrorism, and the 2005 amendment to the Convention on the Physical Protection of Nuclear Materials. [These] are common sense measures that enhance the world's ability to prevent incidents of nuclear terrorism and punish those responsible.

As ACA Senior Fellow Greg Thielmann wrote in a recent ACA Issue Brief, [“Time Is Now to Act on Treaties to Guard against Nuclear Terrorism,”](#) the legislation for these treaties has been delayed as a result of an impasse on the Senate Judiciary Committee between chairman Patrick Leahy (D-Vermont) and Charles Grassley (R-Iowa).

## *Second Term Nuclear Risk Reduction Opportunities*

Obama said “Nunn-Lugar is the foundation for the vision that I laid out, once I was elected President, in travel to Prague – where nations come together to secure nuclear materials, as we’re doing with our Nuclear Security Summits, where we build on New START and continue to work to reduce our arsenals; where we strengthen the Nuclear Nonproliferation Treaty and prevent the spread of the world’s most deadly weapons; where, over time, we come closer to our ultimate vision – a world without nuclear weapons.”

Continuing to reduce the nuclear threat, strengthen the Nuclear Nonproliferation Treaty, and move closer toward a world without nuclear weapons will require stronger presidential leadership on the objectives that Obama and his team laid out in his first term. In addition to renewing the framework agreement for cooperation with Russia and other states to secure vulnerable WMD stockpiles from terrorists, President Obama must seize his second term opportunity to reduce the nuclear dangers in other areas:

## *Ending Cold War Thinking*

In Prague in 2009, President Barack Obama pledged to “end Cold War thinking” and further reduce the role and number of nuclear weapons. Following the modest but important New START treaty, the White House must follow through by implementing the saner “nuclear deterrence only” strategy outlined in the 2010 Nuclear Posture Review. As the President said in a March 2012 speech:

“My Administration’s nuclear posture recognizes that the massive nuclear arsenal we inherited from the Cold War is poorly suited for today’s threats, including nuclear terrorism. Last summer,



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I therefore directed my national security team to conduct a comprehensive study of our nuclear forces. That study is still underway.”

“But even as we have more work to do, we can already say with confidence that we have more nuclear weapons than we need. I firmly believe that we can ensure the security of the United States and our allies, maintain a strong deterrent against any threat, and still pursue further reductions in our nuclear arsenal.”

To make the necessary changes in the old nuclear war plan, Obama should eliminate outdated targeting assumptions developed decades ago to deplete an opponent’s war-fighting assets after the outbreak of hostilities rather than to ensure there is a sufficient retaliatory capability to deter nuclear attack in the first place.

He should also seek to lower current requirements for how much damage must be accomplished to ensure that a target is destroyed. To deter a nuclear attack, adversaries need only realize the United States is capable of reducing key targets to radioactive rubble rather than a fine dust.

These changes in U.S. nuclear strategy could open the way for further U.S. and Russian strategic nuclear reductions – to no more than 1,000 deployed nuclear warheads each. Even with 500 warheads on survivable delivery systems, the United States would still have more than enough nuclear firepower to deter nuclear attack by the other or by any other current or future nuclear adversary.

### *Cutting Bloated U.S. and Russian Nuclear Arsenals*

As a new report from the Secretary of State’s International Security Advisory Panel suggests, with New START verification tools in place, reciprocal U.S.-Russian cuts, including new transparency measures on tactical nuclear weapons, need not wait for a formal, new, follow-on treaty.

And by signaling he is prepared to accelerate reductions and move U.S. forces below the 1,550 deployed strategic warhead ceiling of New START, the U.S. president could induce the Kremlin to build down rather than build up its forces. This would help reduce the enormous cost of planned strategic force modernization by both countries in the coming years. Such actions would put pressure on China to abandon its slow increase in nuclear forces and open the door for serious multilateral disarmament discussions.



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And as Stephen Pifer and Michael O'Hanlon write in the December issue of Arms Control Today, the two sides can and should also begin talks on a new comprehensive nuclear reductions treaty that leads to further verifiable reductions in all types of warheads – strategic, nonstrategic, deployed and nondeployed.

## *Moving the Nuclear Test-Ban Treaty Forward*

Twenty years after its last nuclear test, the United States no longer needs or wants a resumption of testing. Yet by failing to ratify the Comprehensive Nuclear Test-Ban Treaty (CTBT), Washington has denied itself and others the treaty's full security benefits. U.S. ratification is essential to bring other hold-out states on board and to move closer to full entry into force.

Since the beginning of his first term, President Barack Obama and senior administration officials have consistently expressed support for the pursuit of U.S. reconsideration and ratification of the treaty. In April 2009 he called for U.S. reconsideration and ratification of the CTBT. In March 2012, Obama reaffirmed that commitment and said: "... my administration will continue to pursue ratification of the Comprehensive [Nuclear]Test Ban Treaty."

Today the case for U.S. approval of the CTBT is stronger than it has ever been. Moving forward and gaining the necessary 67 Senate votes in support of ratification of the CTBT remains difficult, but is within reach with strong presidential leadership and a serious, sustained bipartisan review of the issues.

It's time for the President to follow-through on the CTBT. With his national security team in flux and occupied with tough security challenges – from Syria's chemical weapons stockpile, to upcoming talks on Iran's nuclear program, to North Korea's nuclear and missile ambitions – it is essential that the President appoint a senior, high-level White House coordinator or a high-level task force to push the ratification campaign along. As far back as 2000, thoughtful CTBT advocates, including General John Shalikashvili, have called for "a sustained interagency effort to address senators' questions and concerns" on the CTBT and other nonproliferation issues.

With the CTBT in force, the established nuclear-weapon states would not be able to proof-test new nuclear warhead designs, newer nuclear nations would find it far more difficult to build more advanced warhead types, and emerging nuclear states would encounter greater obstacles in fielding a reliable arsenal. U.S. action on the CTBT is urgently needed to help head off future nuclear arms competition, particularly in the Middle East, South Asia, and the Korean peninsula.

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## *A Lasting Legacy*

By taking these bold steps, President Obama could significantly reduce global nuclear dangers, reinforce the beleaguered nuclear nonproliferation system, and establish a lasting international nuclear security legacy. Among other benefits, this would build support for tougher enforcement actions regarding states, such as Iran and North Korea, that fail to meet their safeguards obligations, and build pressure on other nuclear-armed states to contribute more to the goal of realizing a world without nuclear weapons.

As President John F. Kennedy suggested five decades ago, we must work faster and harder to abolish nuclear weapons before they abolish us. In the months ahead, President Obama can and should seize the leadership opportunity to further reduce the nuclear threat.

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## Russia, U.S. Press toward Full Chemical Arms Elimination

*Nuclear Threat Initiative, 30 November 2012, <http://www.nti.org/qsn>*

The United States and Russia this week touted progress toward full elimination of their world's-largest stockpiles of chemical warfare materials. [...]

The United States has spent in excess of \$25 billion to destroy close to 90 percent of an arsenal that once encompassed nearly 30,000 tons of materials such as sarin nerve agent and mustard gas. The remaining stocks are held at Army installations in Colorado and Kentucky, where construction of disposal plants are respectively 97 and 57 percent completed, U.S. Ambassador [to the Organization for the Prohibition of Chemical Weapons (OPCW)] Robert Mikulak said on Monday.

The Defense Department now expects to destroy roughly 2,600 tons of mustard agent at the Pueblo Chemical Depot in Colorado by 2019, and to complete disposal of 523 tons of blister and nerve agents at the Blue Grass Army Depot in Kentucky in 2023.

Russia, as of Sunday, had destroyed close to 31,000 tons of chemical agents, 70 percent of its 44,000-ton declared arsenal. It anticipates finishing off 4,438 tons of material this year, 51 tons more than originally planned, G.V. Kalamonov, Russian deputy industry and trade minister, said in his address to the [Conference of the States Parties to the OPCW].

Both nations have cited economic and logistical challenges that prevented them from meeting their obligation under the Chemical Weapons Convention to wipe out their holdings of banned materials by April of this year. Member nations to the accord last year demurred from penalizing the former Cold War rivals, instead demanding greater transparency and reporting for their demilitarization efforts.

"As all chemical weapons possessors have discovered, destruction of such weapons is a difficult task," Mikulak said in prepared comments to conference delegates. "Over the course of many years, the United States has addressed and resolved safety and environmental concerns raised by local authorities, as well as by people living near our chemical weapons storage and destruction facilities. Complex technical issues have been mitigated and the lessons learned have been passed on to our other chemical weapons destruction sites."

Mikulak pledged that the U.S. government would "make every effort" to destroy its remaining chemical materials "as rapidly as practicable" without sacrificing safety or endangering the nearby environment and populace.



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Kalamanov offered similar assurances, saying Moscow is working to boost the disposal capacities at all remaining demilitarization plants. Russia has pledged to finish work by the end of 2015, a schedule viewed with some skepticism by independent experts. "We are making every effort to accomplish the task we have been set as quickly as possible," Kalamanov said.

Three-fourths of the total known stocks [worldwide] of chemical warfare agents – 59,151 of 78,480 tons – have been eliminated to date, according to figures from the [OPCW], which monitors compliance of 188 member nations to the Chemical Weapons Convention. The intent is to ensure the weapons can never be used in conflict or fall into the hands of terrorists or other rogue actors.

Albania, India, and [another State Party] have all completed disposal of their arsenals. The other two OPCW states with known stocks are Iraq and Libya. Syria is believed to hold hundreds of tons of warfare agents but has not joined the convention.

A small amount of unusable chemical materials and munitions are believed to remain within deteriorating bunkers in Iraq. Baghdad is working with the OPCW Technical Secretariat and member nations on a "final destruction plan," said Ahmad Bamrani, who leads the International Organizations and Cooperation Department for the Iraqi Foreign Ministry. He did not offer details of the plan or a timeline for work to begin and conclude.

Libya's efforts to destroy its small chemical arsenal were halted in early 2011, almost simultaneous to the beginning of the uprising that ultimately toppled the Qadhafi regime. The stockpile today – some of which had not been declared by the former government – consists of roughly 14 tons of sulfur mustard agent in bulk containers, hundreds of artillery shells that also contain the blister agent, and about 882 tons of precursor materials. An OPCW spokesman earlier this year said the nation expected to resume work in 2013 and to complete demilitarization operations in 2016.

No Libyan statement for this week's [Conference of the States Parties to the OPCW] meeting was immediately available. However, the nation in September said the system for disposal of the bulk mustard holdings was ready for operations once necessary arrangements have been made. Libya has also sought, without "concrete results," to obtain funding for a detonation chamber to destroy the mustard munitions, according to [its] September statement to the 41-country OPCW Executive Council.

Mikulak said the United States and other OPCW member nations are "concerned about the origins" of the chemical stocks that had not been declared under dictator Muammar Qadhafi.

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"We look forward to additional information that the Technical Secretariat can gather and provide to the Executive Council and to this conference that addresses where the hidden chemical weapons, and the chemical agent they contain, were produced." The U.S. envoy also urged Syria to "give up its chemical weapons arsenal and join the Chemical Weapons Convention, and we will continue to work with the international community toward that end." [...]

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## **UN Secretary General and OPCW Director Urge States to Join CWC without Delay**

*Organization for the Prohibition of Chemical Weapons, 27 November 2012, <http://www.opcw.org>*

The United Nations Secretary-General, Mr. Ban Ki-moon, and the OPCW Director-General, Mr. Ahmet Üzümcü, have addressed a joint communication to the heads of State or Government of each of the eight states that are not Parties to the Chemical Weapons Convention. The letters underscore the importance of achieving the universality of the convention as a condition necessary to attain a world free from chemical weapons. These states have, therefore, been strongly urged to join the convention “without delay.”

The convention currently has 188 States Party representing more than 98 percent of the world’s population and chemical industry, leaving only Angola, Egypt, Israel, Myanmar, North Korea, Somalia, South Sudan, and Syria as the states that remain outside the treaty.

The letter states that “the continuing growth in the membership of the [Organization for the Prohibition of Chemical Weapons (OPCW)]... is evidence that the prohibition against the development, production, stockpiling, and use of chemical weapons constitutes a universal norm.” The letter further calls for the respective governments to undertake a commitment to the legally-binding prohibition against chemical weapons in order to consolidate these norms and to ensure that such weapons are never used again.

Achieving universality of the convention is a priority goal of the both the OPCW and the United Nations. This was stressed at a high-level meeting held at the UN Headquarters in New York on October 1 to commemorate the 15<sup>th</sup> anniversary of the entry into force of the convention. Speaking on the occasion, the UN Secretary-General highlighted the importance of universality of the convention and said that the use of chemical weapons by any country would be “an outrageous crime with dire consequences.”



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## Satellites Could Detect Nuclear Tests

*Science Now*, 30 November 2012, <http://news.sciencemag.org>

Even when they're underground, nuclear tests can be detected in the skies – and as a result, global satellite networks could become a powerful new tool in the arsenal of weapons to help detect clandestine underground nuclear explosions, a team of scientists reported here today at the fall meeting of the American Geophysical Union.

The International Monitoring System (IMS), established by the Comprehensive Nuclear Test-Ban Treaty [Organization (CTBTO)], has a number of different ears to the ground to detect clandestine nuclear weapons testing: seismic networks that listen for terrestrial shock waves; hydroacoustic networks that scan the oceans for sound waves; and radionuclide networks to sniff out radioactive particles that nuclear explosions produce. But those methods may miss clandestine explosions. Now, Jihye Park, a postdoctoral researcher at Ohio State University (OSU), Columbus, and her colleagues suggest adding another tool to the IMS's arsenal. This one would involve looking up – into the ionosphere, the portion of the upper atmosphere that is ionized by solar radiation.

A nuclear explosion – even when detonated underground – sends up a giant electromagnetic pulse that ripples through Earth's ionosphere. That effect – known as a traveling ionospheric disturbance, or TID – should theoretically be detectable with technologies that are sensitive to changes in the ionosphere, such as global satellite networks and radio telescopes. In fact, there have been proposals to use [global positioning system (GPS)] in detonation detection since about 1979, says Andreas Persbo, executive director of the Verification Research, Training, and Information Centre in London, who was not involved in the present study.

But a lot of different sources can produce TIDs, including earthquakes and major storms. So is it possible to uniquely identify an underground nuclear explosion (UNE) among the many factors disturbing the ionosphere's fluctuating swirls of particles? Today at the meeting, Park; Dorota Grejner-Brzezinska, an OSU professor of geodetic and geoinformation engineering; and colleagues announced that they have developed a methodology to do just that.

The key insight, Grejner-Brzezinska says, occurred when she and her team were trying to figure out how to improve the positioning data from the Global Navigation Satellite System, which can be thrown off by ionospheric disturbances between the satellites and their ground-based receiving stations. They wanted to remove those disturbances, or noise. But one man's noise, they realized, is another man's signal: those very disturbances might offer clues to their sources.

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Park and her colleagues previously demonstrated that it was possible to identify a UNE by its ionospheric fingerprint, in a study published in *Geophysical Research Letters* in 2011. The target in that case was North Korea's May 25, 2009 UNE: Park and her team found a unique TID that also pinpointed the location of the explosion to within about 4 kilometers of its seismically determined epicenter. They saw this TID pattern in data from 11 different Global Navigation Satellite System stations – astronomically unlikely for a random event.

In the current study, the team analyzed signals that GPS stations received after two 20-kiloton UNE tests the United States conducted in 1992. The two tests were part of a series of eight UNEs conducted from 1991 to 1992 at a dusty Department of Energy reservation 100 kilometers northwest of Las Vegas, Nevada. Researchers had begun testing nuclear devices at the Nevada Test Site in 1951; this latest series of blasts was codenamed Operation Julin, and the final two tests of the series – dubbed Hunters Trophy and Divider – took place on September 18 and September 23, respectively. Those two also became the last nuclear tests the United States conducted before President George H. W. Bush signed a law imposing a moratorium on all nuclear weapons testing, on October 2, 1992. (The 1963 Limited Test-Ban Treaty had already banned all but underground [nuclear] tests.) In 1996, the United States, Russia, the United Kingdom, France, and China signed the Comprehensive Nuclear Test-Ban Treaty – but the United States has yet to ratify it.

The team came up with a relatively simple algorithm to find the signal within the noise. They first removed the effect of distortions from changes to the diurnal cycle and from the changing geometry of the satellites themselves. Then they converted the ionospheric delay between satellites and stations into a "total electron content" in the TIDs. From all of these data, they came up with a profile for the TIDs: their amplitude, their frequency, and how quickly they traveled through the ionosphere. That same profile appeared in multiple stations – and as a result, based on where the stations were and how long it took that fingerprinted signal to arrive, the team was also able to pinpoint the location of the original signal – the Hunters Trophy blast. They devised a similar algorithm to identify and characterize the Divider blast using GPS data.

The very large array (VLA) of radio telescopes, located near Socorro, New Mexico, used a similar algorithm to come up with a similar result. VLA measures correlations between signals from pairs of antennas to reconstruct images of the sky, as though they were one single, giant telescope – and so VLA, too, is sensitive to ionospheric fluctuations. After performing similar calculations, the team announced, VLA found a fingerprint for the Hunters Trophy TID that strongly resembled that of the GPS signal.

One advantage to using GPS detection, Grejner-Brzezinska notes, is that the infrastructure is already in place and available globally at no cost. But a lot of kinks still must be ironed out to

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make the method operational, the team acknowledges – particularly sensitivity limits, and how well the method can distinguish between different point sources, such as earthquakes and UNEs.

"It's always good to have additional discriminants," says Paul Richards, a seismologist at Columbia University's Lamont-Doherty Earth Observatory in Palisades, New York, who was not involved in the study. "But we do have a number of effective ones already." Richards emphasizes the uncertainties still in the method but says that with further progress "at some point we can make comparisons with what is already available and then see if these techniques add a useful arrow to the quiver."

In any case, politics could still overshadow any advantages the new technique might offer. "In my mind, the method shows promise," Persbo says. "Whether or not the method will be included in formal CTBT monitoring, however, is an open question. The treaty leaves the door open, but I don't think that there is much appetite amongst member states to discuss the formal incorporation of new technologies until the treaty shows signs of entering into force."

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## Obama Hails Nunn-Lugar Efforts to Secure Nukes

Associated Press, 03 December 2012, <http://www.ap.org>

Hailing two decades of efforts to help the former Soviet Union secure nuclear weapons stockpiles, President Barack Obama said Monday that the world must continue to stand guard against nuclear threats – including terrorists who seek to gain control of nuclear weapons. "We cannot let our guard down," Obama said, calling efforts to combat nuclear terrorism one of his top priorities as president.

Obama praised the 20-year-old Cooperative Threat Reduction program, which has provided billions of dollars in U.S. equipment and know-how to help Russia and former Soviet bloc nations safeguard and dismantle nuclear and chemical weapons. The program, initiated by Senator Richard Lugar (R-Indiana) and former Senator Sam Nunn (D-Georgia), has helped deactivate more than 7,600 nuclear warheads.

Marking the program's 20<sup>th</sup> anniversary, Obama cited the "extraordinary progress" that's been made in securing nuclear materials and thanked Nunn and Lugar for their leadership. In a speech at the National Defense University in Washington, the president called Nunn and Lugar "visionaries" who "challenged us to think anew" about ways to secure nuclear stockpiles produced during the Cold War. He also said they were models for bipartisan cooperation who showed great integrity, decency, and leadership over their long careers. Obama called Lugar, who was defeated in a bid for re-election, a friend, and said his legacy – and Nunn's – is "a safer and more secure world."

The program Nunn and Lugar created provided reinforced rail cars to carry nuclear warheads, high-tech security systems for storage sites, and helped pay for the dismantling of mothballed nuclear submarines and other weapons. It played a major role in preventing deadly weapons from falling into the wrong hands while the Russian government was facing a severe money crunch amid an economic meltdown and [the] political turmoil that followed the 1991 collapse of the Soviet Union.

The program is set to expire this spring, and Russia has said it will not automatically extend it without a major overhaul. Obama noted statements about the program's future by Russian leaders and said the U.S. response is, "Let's update it. Let's work with Russia as an equal partner. Let's continue the work that is so important." Obama said he was optimistic that a new agreement can be reached, echoing comments Nunn and Lugar have made in recent months.

Defense Secretary Leon Panetta spoke before Obama and also heaped praise on his former congressional colleagues, Nunn and Lugar. Panetta awarded the men the Defense Department's Medal for Distinguished Public Service, the Pentagon's highest civilian honor.

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"We can say that the course of history changed for the better because these two men helped the nation confront the threat of nuclear proliferation at the end of the Cold War," Panetta said. "The world would have been, without question, a far more dangerous and threatening place were it not for these two patriots."

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## **Nullifying Nunn-Lugar: the End for America's and Russia's Disarmament Pact?**

*Army Technology*, 22 November 2012, <http://www.army-technology.com>

Few issues show up the two sides of U.S.-Russian relations more than the question of nuclear nonproliferation, and little polarizes those differences better than the Nunn-Lugar agreement. Now, for the first time since the collapse of the Soviet Union, the message from Moscow is that Russia will not renew a two decade old treaty credited with the dismantling of more than 7,500 nuclear warheads.

In the wake of the Soviet Union's collapse in 1991, Senators Sam Nunn and Richard Lugar sponsored legislation which eventually led to what is officially termed the Cooperative Threat Reduction (CTR) program – and unofficially, 'Nunn-Lugar'. In the two decades since, it has been credited with many successes, including the dismantling of more than 7,500 nuclear warheads; eliminating major stockpiles of nuclear, biological, and chemical weapons; and making the former Soviet republics of Ukraine, Belarus, and Kazakhstan nuclear-free.

However, Moscow's military have long argued that this U.S.-financed initiative affords Washington far too clear an insight into the country's defense technologies and weapons bases, while others in the Kremlin see it as increasingly incompatible with the current economic realities of the new Russia.

In October 2012, just six weeks after the Carnegie Endowment for International Peace presented the first biennial Nunn-Lugar Award for Promoting Nuclear Security to the authors of the eponymous agreement, Moscow refused to renew the very partnership that they had helped to forge.

Although the Obama administration had been looking for it to continue, Russia's Foreign Ministry had made no secret of its reluctance to carry on with the arrangement along existing terms, after it expires next spring. As deputy foreign minister Sergey Ryabkov commented at the time, October's announcement should not have come as news to the United States.

A month on, a Presidential election later, and Nunn-Lugar apparently soon to be null and void, what is currently putting wrinkles in U.S.-Russian defense relations, and what does the future hold?

"Money and missiles – that's the two big issues Russia has with Washington right now," says defense blogger, Newton Hunter. "Moscow's become more and more unhappy with the way it sees American dollars dictating [Russian] national policy. It's not the out-and-out 'no' to arms reduction that some people have made it sound – it's more a 'no' to Nunn-Lugar, or at least



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Nunn-Lugar as is. They just want the terms of the game to be a bit more balanced and [to] reflect the way things have changed [during] the last 20 years."

Hunter suggests that agreeing a more Russian-financed and inspected approach would undoubtedly allow cooperation over nonproliferation to be maintained, something both Presidents Putin and Obama clearly back, but there remains one seemingly intractable obstacle – America's proposed missile shield.

"Missile defense is the major sticking block. The Russians are very wary of the whole idea of an anti-missile system based on their borders, despite all the assurances that it's not going to be used against them – and they have got a point. Obama promised Medvedev when he was Russia's president that he'd be 'flexible' about it, but Moscow doesn't feel there's been much evidence of that so far."

That situation is unlikely to get better any time soon; as a Democrat President facing a Republican majority, flexibility may be an impossible ask for Obama. Any talk of concessions to their old Cold War enemy will not play well with Congress, particularly since Russian Chief of General Staff, Nikolai Makarov, spoke openly in May of a preemptive strike if NATO goes ahead with the third phase of the plan to deploy interceptor missiles in Poland by 2018. [...]

However, beyond the posturing of both sides for their own domestic audiences, perhaps there is some hope for rapprochement, not least because ultimately, neither side wants, nor can afford, another arms race. As U.S. State Department special envoy Ellen Tauscher put it at a joint military conference in May, "your 10-foot fence cannot cause me to build an 11-foot ladder."

She called then for a political leap of faith, and there may be some hint of that in what the Russian Foreign Minister, Sergey Lavrov said after the U.S. election. Stressing the need for mutual respect and equality, he pledged that "we are ready to go as far as the U.S. administration is willing to go."

Obama was the President behind the famous "reset" in Russian relations, and many are suggesting that now might be the moment to reset the reset. If so, Hunter muses, unlike the last time, it is imperative that America finds the right word – in Russian – and spells it in Cyrillic. Moscow's renewed sense of itself on the world stage demands nothing less.



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## New START Treaty Aggregate Numbers of Strategic Offensive Arms

U.S. Department of State, 30 November 2012, <http://www.state.gov>

[The] data in this Fact Sheet comes from the biannual exchange of data required by the treaty. It contains [the] data declared current as of September 1, 2012. Data [is] updated each six month period after [the treaty's] entry into force.

Category of Data	United States of America	Russian Federation
Deployed ICBMs, Deployed SLBMs, and Deployed Heavy Bombers	806	491
Warheads on Deployed ICBMs, on Deployed SLBMs, and Nuclear Warheads Counted for Deployed Heavy Bombers	1722	1499
Deployed and Non-deployed Launchers of ICBMs, Deployed and Non-deployed Launchers of SLBMs, and Deployed and Non-deployed Heavy Bombers	1034	884

### United States of America Data

Effective Date: September 1, 2012

ICBMs and ICBM Launchers	MM-III	PK	Total
Deployed ICBMs	449	0	449
Non-deployed ICBMs	263	58	321
Deployed and Non-deployed Launchers of ICBMs	506	51	557
Deployed Launchers of ICBMs	449	0	449
Non-deployed Launchers of ICBMs	57	51	108
Test Launchers	6	1	7

SLBMs and SLBM Launchers	Trident II	Total
Deployed SLBMs	239	239
Non-deployed SLBMs	180	180
Deployed and Non-deployed Launchers of SLBMs	336	336
Deployed Launchers of SLBMs	239	239
Non-deployed Launchers of SLBMs	97	97
Test Launchers	0	0



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<b>Heavy Bombers</b>	<b>B-2A</b>	<b>B-52G</b>	<b>B-52H</b>	<b>Total</b>
Deployed Heavy Bombers	10	30	78	118
Non-deployed Heavy Bombers	10	0	13	23
Test Heavy Bombers	1	0	2	3
Heavy Bombers Equipped for Non-nuclear Armaments	0	0	0	0

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