

U.S.-Russia Initiative to Prevent Nuclear Terrorism

Российско-Американская инициатива по предотвращению ядерного терроризма

October-November 2013 Newsletter

Информационный бюллетень за октябрь-ноябрь 2013 года



ИСКРАН

NEWS:

Belfer Center Leadership Briefs U.S. and Russian Generals on Nuclear Terrorism

Director of the Belfer Center for Science and International Affairs Graham Allison and the center's executive director Gary Samore presented during the [U.S.-Russia Harvard Security program](#) that took place in Washington, DC, in mid-November.

Professor Allison lectured the participants, who included U.S. and Russian flag officers, on the reality of the threat of nuclear terrorism, citing concerns expressed about this threat by top officials in both countries. Dr. Samore focused his presentation on “[Steps to Prevent Nuclear Terrorism: Recommendations Based on the U.S.-Russia Joint Threat Assessment](#).”

This report was produced jointly by researchers at the Belfer Center and the Russian Academy of Sciences' Institute for U.S. and Canadian Studies (ISKRAN). ISKRAN participates in the working group of the U.S.-Russia Initiative to Prevent Nuclear Terrorism (IPNT).

Co-authors of the IPNT report, which warns that nuclear terrorism remains a real and urgent threat, also presented their work at EastWest Institute's New York offices and at the Harvard Kennedy School in early October. Despite an array of mechanisms established to combat this



Allison

threat, several serious problems persist, requiring relentless attention and actions by the United States, Russia and other responsible nations. These problems include continuing nuclear security vulnerabilities in a number of countries and the continued incidents of illicit trafficking in nuclear materials, radioactive sources and the various components, according to the report.



Samore

Putin, Obama and Xi Expected to Attend Nuclear Security Summit

The Dutch government expects 58 world leaders, including U.S. President Barack Obama, Russian leader Vladimir Putin, and China's first man Xi Jinping to attend the Third Nuclear Security Summit in March, *Netherlands Times* reported on November 25th.

Report Highlights Problems inside USAF's Nuclear Missile Force

An unpublished study by RAND found “burnout” among personnel of USAF's ICBM force. The study found low job satisfaction and workers distressed by staff shortages and equipment flaws, AP [reported](#) on November 21st, 2013. RAND researchers note that court-martial rates in the nuclear missile force in 2011 and 2012 were more than twice as high as in the overall Air Force.

It has been earlier reported that USAF officers entrusted with the launch keys to nuclear-tipped missiles have been caught twice this year, leaving open a blast door that is intended to help prevent a terrorist or other intruder from entering their underground command post. Such violations have happened, undetected, many more times than in the cases of the two launch crew commanders and two deputy commanders who were given administrative punishments this year. AP [reported](#) on October 22nd, citing USAF officers.

U.S., Russia and UK Specialists Hold Nuclear Security Workshop

Representatives from the U.S. National Nuclear Security Administration (NNSA), U.K.'s Ministry of Defence, and Russia's State Atomic Energy Corporation "Rosatom" met Nov. 5-6 in Lisbon, Portugal, for the Eighth Nuclear Security Best Practices Exchange. The annual workshop focused on overcoming mutual challenges related to securing nuclear material, NNSA [reported](#) on November 19th, 2013.

Samore on Belfer's Effort to Help Prepare for Nuclear Security Summit

Gary Samore, Belfer Center's Executive Director for Research and IPNT member, has granted an [interview](#) to the Belfer Center's newsletter, in which he highlighted the Belfer leadership's efforts to help governments prepare for the March 2014 Nuclear Security Summit in The Hague. "Several of us – Graham Allison, Will Tobey, Matt Bunn, Olli Heinonen, and myself – have been working directly with the Dutch hosts and other governments" ahead of the summit. At the summit itself, the Belfer Center's experts will be participating in the so-called "Knowledge Summit" of outside experts and NGOs seeking to increase public awareness and support for stronger measures to prevent nuclear terrorism, and the Belfer Center has established a [special website](#) on the Nuclear Security Summit for people who are interested in learning more about this issue, according to Samore.

Megatons to Megawatts Completed

The downblending of highly enriched uranium (HEU) to low enriched uranium (LEU) by Russia that was required by the 1993 U.S.-Russia HEU Purchase Agreement has now been [completed](#), Deputy Assistant Secretary of State Frank A. Rose announced on November 1st. The final shipment was loaded onto a vessel in St. Petersburg's port on November 14th to be sent to the United States. Under the program, which is also known as Megatons to Megawatts, 500 metric tons of highly enriched uranium, the equivalent of about 20,000 nuclear warheads, was converted into fuel for use at U.S. nuclear power plants.

Abdullaev: Suicide Terrorists Could Wreak Havoc With Nuclear Materials

The Belfer Center has published an [article](#) by a long-time scholar of political violence in the North Caucasus that highlights the threat posed by suicide terrorists to Russia, warning of havoc that such terrorists can hold of if they manage to acquire nuclear materials.



"While female suicide bombers have so far used conventional explosives in their attacks, one can imagine how much havoc a suicide terrorist or terrorists could wreak if they got their hands on radioactive materials to make a dirty bomb, or penetrated a nuclear facility to sabotage it," writes Nabi Abdullaev, who directed the foreign broadcast service of Russia's *RIA Novosti* news agency.

Obama to Nominate Creedon for Top NNSA Job

President Barack Obama announced on November 5th that he plans to [nominate](#) Assistant Defense Secretary Madelyn Creedon to take over as principal deputy administrator of the National Nuclear Security Administration. Creedon [asserted](#) in late October that the U.S. nuclear arsenal needs a multi-billion dollar overhaul in the coming decade to ensure the weapons'

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safety and effectiveness, despite warnings from arms control groups that the effort is unaffordable and unnecessary.

U.S. and Russia Team Up to Remove Dirty Bomb Material

The NNSA and its Russian partners have successfully completed the removal of 14 Russian radioisotope thermoelectric generators (RTGs) from the Northern Sea Route.

The 14 RTGs contained Strontium-90, a high-activity radioisotope that could be used in a dirty bomb, NNSA [reported](#) on November 7th, 2013. With this removal NNSA has completed its efforts to recover RTGs along the Northern Sea Route.

U.S. and Russia Complete Removal of HEU from Hungary

The United States, Russia and the International Atomic Energy Agency (IAEA) have completed removal of all remaining highly enriched uranium (HEU) from Hungary. NNSA announced the successful completion of the removal in a [press release](#) on November 4th, 2013.

The final 49.2 kilograms of remaining HEU in Hungary were removed over a series of three secure air shipments in six weeks and transported to Russia.

Hungary has become the twelfth country to completely eliminate HEU from its borders since 2009, according to the NNSA press release.

Country's Vulnerability to Nuclear Terrorism Increases with Size of Its Nuclear Program

Bryan R. Early, Matthew Fuhrmann and Quan Li have published an article in the October 2013 issue of the British Journal of Political Science in which they claim that a country's vulnerability to nuclear and radiological (NR) terrorism grows as the size of its nuclear program increases.

The presence of expansive nuclear infrastructure facilitates terrorists' efforts to steal or acquire nuclear and radiological materials, increases the targets open to attack, and amplifies the potential economic and social-psychological consequences of related terrorist attacks. Portions of the research for the article, which is entitled "[Atoms for Terror? Nuclear Programs and Non-Catastrophic Nuclear and Radiological Terrorism](#)," have been completed while Early and Fuhrmann were research fellows at Harvard University's Belfer Center for Science and International Affairs.

Global Arsenal of Nuclear Weapons Over 17,000

In 2013, the global stockpile of nuclear weapons was estimated at over 17,000 weapons, with the United States and Russia together holding over 16,000 of these weapons, according to a report released by the International Panel on Fissile Materials (IPFM) in October 2013.

The report put the global stockpile of highly enriched uranium (HEU) at 1380 ± 125 tons, which was sufficient for more than 55,000 nuclear weapons, as of late 2012. The global stockpile of separated plutonium in 2012 was about 495 ± 10 tons, according to [Global Fissile Material Report-2013](#). Most of HEU and separated plutonium was in the nuclear weapon states, according to the report.

IAEA Reports Malware Infected Some of Its Computers

IAEA has admitted that malicious software infected some of its computers over the past few months, but insisted that no data in its network has been compromised.

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The computers were located in common areas of the agency's headquarters in the Austrian capital, known as the Vienna International Centre, where IAEA staff as well as member state officials work and meet, Reuters reported on October 22nd, 2013.

"The (IAEA) secretariat does not believe that the USB devices themselves were infected or that they could spread the malware further. No data from the IAEA network has been affected,"

Serge Gas, director of public information, told [Reuters](#).

Tobey and Zolotarev on Stopping Nuclear Terrorism

Director of U.S.-Russia Initiative to Prevent Nuclear Terrorism William Tobey and deputy director of the Russian Academy of Sciences' Institute for U.S. and Canadian Studies Pavel Zolotarev have published an op-ed in The Moscow Times on "[Stopping Nuclear Terrorism](#)." The October 13rd article notes that simulations and exercises conducted over the past several years by former U.S. and Russian officials reveal that their respective governments are not organized to cooperate effectively on suppressing illegal trafficking of nuclear material or to deal with a nuclear terrorism event. "The threat of nuclear terrorism is urgent and real; so is the need for action, they write. There are concrete steps that the U.S. and Russia could take jointly, in parallel and with other nations to reduce the threat." The U.S. and Russia could undertake actions



Zolotarev

to ensure that all of the nuclear weapons, highly enriched uranium, and separated plutonium under their control are protected to the highest standards. The two countries could draw on their twenty-year experience of working together to secure Russian nuclear stocks and apply that knowledge to helping other countries improve their nuclear security.



Tobey

Arbatov on Terrorism Threat in North Caucasus

Alexei Arbatov, director of Center for International Security at Russia's Institute for World Economy and International Relations, has [spoken](#) to *Russia Beyond The Headlines* on the dynamics of the threat of terrorism emanating from the North Caucasus ahead of the Olympic Games in Sochi. "If there are some positive trends they could be explained by that fact that the federal authorities are not the only ones preparing for the Olympics," Arbatov said of the recent decline in civilian casualties from terrorist attacks in the North Caucasus. In the October 30th interview Arbatov urged for greater effort to improve the situation in the North Caucasus as the February 2014 game near. "The government needs to show that something is being done ahead of the Olympics. The message they are increasingly pushing is: Don't be afraid of the Caucasus," said Arbatov whose center participates in the IPNT working group.



Gremikha military base to be cleared from nuclear fuel by 2020

The Russian Northern Fleet's Gremikha base will be cleared of spent nuclear fuel before 2020, according to Rosatom. "We will start to dismantle another nine active zones in Gremikha. I think nuclear fuel will be completely removed from the base by 2020 and we will create "a brown lawn" at first and, naturally, "a green lawn" afterwards," Rosatom's submarine disposal project office director Anatoly Zakharchev [said](#) on October 10th, 2013.

Rosatom is also to build a facility for the disposal of radioactive elements from decommissioned nuclear ships and submarines in Russia's Far East.

Tobey and Bunn on Next Steps to Reduce the Danger of Nuclear Terrorism

IPNT director William Tobey and Matthew Bunn, Professor of Practice at Harvard Kennedy



School and IPNT member, gave a presentation on nuclear terrorism Piet de Klerk, the Dutch Sherpa organizing the 2014 Nuclear Security Summit, and his colleagues on October 7th, 2013. In their presentation – that took place at the United Nations headquarters in New York and that was sponsored by the Dutch mission to the UN, Bunn and Tobey outlined [recommendations](#) for next steps to reduce the threat of nuclear terrorism. “War on terrorism will not be won

until every nuclear bomb and cache of bomb material everywhere in the world is secure and accounted for to stringent and demonstrable standards,” according to the presentation.

UCS: Cancel Plutonium Facility, Delay Uranium Facility

The United States should cancel plans to build a plutonium research facility in New Mexico and postpone construction of an enriched-uranium processing plant in Tennessee, according to the Union of Concerned Scientists' new report. The report, which is entitled “[Making Smart Security Choices The Future of the U.S. Nuclear Weapons Complex](#),” was released in October 2013.

NOTABLE STATEMENTS ON NUCLEAR TERRORISM:

- **U.S. President Barack Obama:** “We'll engage Russia to seek further reductions in our nuclear arsenals and continue leading the global effort to secure nuclear materials that could fall into the wrong hands, because our ability to influence others depends on our willingness to lead and meet our obligations.” (*Washington Post*, November 11, 2013).
- **U.S. Defense Secretary Chuck Hagel:** “The challenge of terrorism has evolved as it has metastasized since 9/11... Destructive technologies and weapons that were once the province of advanced militaries are being sought by non-state actors and other nations. This will require our continued investment in cutting-edge defensive space and cyber technologies, and capabilities like missile defense ... as well as offensive technologies and capabilities to deter aggressors and respond if we must.” (GSN, November 5, 2013).
- **Russian Defence Minister Sergei Shoigu:** “Today international terrorism poses the main threat to peace and stability. The linking between terrorism and the WMD arouses more concern that is why we urge our partners to join actions aimed at fighting this threat posed to global peace and security.” (Itar-Tass, October 23, 2013.)

UPCOMING EVENTS:

- January 2014. U.S. authorities to decide on whether prosecutors will seek the death penalty for accused Boston Marathon bomber Dzhokhar Tsarnaev.

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- February 7-23, 2014. Winter Olympics in the Russian city of Sochi.
- March 24-25, 2014. Nuclear Security Summit in The Hague.
- June 4-5, 2014. Russia to host G-8 summit in Sochi.
- September 2014. NATO summit in Great Britain.

ANNOUNCEMENTS:

The U.S.-Russia Initiative to Prevent Nuclear Terrorism (IPNT) solicits papers, articles and commentary from readers for inclusion in the newsletter and publication on the Initiative's web site. Contact Belfer Center fellow Simon Saradzhyan at (phone) +1-617-496-8228, (fax) +1-617-495-8963, or simon_saradzhyan@hks.harvard.edu.

PHOTO CREDITS:

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The Working Group of the U.S.-Russia Initiative to Prevent Nuclear Terrorism includes the following institutions:

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