



UNITED STATES AIR FORCE  
**CENTER FOR STRATEGIC  
DETERRENCE STUDIES**

**NEWS AND ANALYSIS**

**Issue 1367**  
**24 May 2019**

## Feature Report

***“Understanding Strategic Interaction in the Second Nuclear Age”***. By Thomas G. Mahnken, Gillian Evans, Toshi Yoshihara, Eric Edelman, Jack Bianchi. Published by Center for Strategic and Budgetary Assessments; May 15, 2019

<https://csbaonline.org/research/publications/understanding-strategic-interaction-in-the-second-nuclear-age>

The nuclear balance is changing. Whereas the total inventory of nuclear warheads has been decreasing for decades, the number of nuclear powers is increasing. Whereas the nuclear balance throughout the Cold War was centered on the United States and the Soviet Union, today nuclear competition is on the brink of becoming multipolar. And although strategic interaction between the United States and the Soviet Union during the Cold War fell far short of the “action-reaction” model developed by international relations theorists, current and future patterns of interaction among nuclear powers are likely to be more complex. Whereas the nuclear arsenals of the United States and Russia have been constrained by bilateral nuclear arms control agreements, those of other nuclear powers have not. Moreover, the composition of nuclear forces is changing as new technologies, such as hypersonic delivery vehicles, enter service. Some states, such as the United States and Great Britain, appear to see decreasing utility in nuclear weapons, whereas others, notably Russia, Pakistan, and North Korea, appear to see nuclear weapons as having increasing utility.

Given the shifting nuclear landscape, the time is ripe for a net assessment of the nuclear balance.

# TABLE OF CONTENTS

## NUCLEAR WEAPONS

- [Highly Enriched Uranium from UK Brought to Y-12 for Secure Storage](#) (Oak Ridge Today)  
The National Nuclear Security Administration said this month that the highly enriched uranium, or HEU, will be down-blended later into low enriched uranium for use as nuclear reactor fuel.
- [DOE Discloses Amount of Surplus Plutonium at SRS; Future Disposition Explained](#) (Aiken Standard)  
The DOE Office of Environmental Management – with help from the NNSA – is right now working to downblend 6 metric tons of weapons-usable plutonium, an NNSA spokesperson told the Aiken Standard.
- [House Appropriations Target Trump’s Nukes, INF Treaty Busting Weapons](#) (Defense News)  
While the Trump administration has made updating and upgrading America’s nuclear arsenal a priority, a pair of key House appropriations subcommittees are setting up a fight over funding for fiscal year 2020.
- [Nuclear Weapons Are Getting Less Predictable, and More Dangerous](#) (Defense One)  
Since the dawn of the nuclear era, the concept of the nuclear triad — bombers, submarines, and intercontinental ballistic missiles — created a shared set of expectations around what the start of a nuclear war would look like.

## US COUNTER-WMD

- [Chemical Analyzer Chosen in Tech Refresh Program](#) (National Defense)  
The device has a library of approximately 13,000 chemicals and compounds that can be identified including explosives, narcotics, toxic chemicals and chemical warfare agents, [Nancy] Otto said.

## US ARMS CONTROL

- [Reports: Iran Increases Production of Enriched Uranium](#) (VOA)  
Enriched uranium can be used to produce nuclear power. It also can be used to make nuclear weapons.
- [Poll: Americans Want to Stay in Nuclear Arms Control Agreements](#) (Defense One)  
But some nuclear weapons watchers were more skeptical of the survey’s findings. Peter Huessy, President of the defense consultancy group GeoStrategic Analysis, said that many of the poll’s questions were framed in a way that pushed a certain result.
- [Trump: “I Will Not Let Iran Have Nuclear Weapons”](#) (The Hill)  
President Trump said in a Sunday night Fox News interview that he doesn't want to go to war with Iran but emphasized he will never allow the nation to develop nuclear weapons.

## COMMENTARY

- [What to Do with the Crown Jewels of Iran’s Nuclear Program](#) (The Hill)  
Israel’s acquisition in early 2018 of a significant portion of Iran’s nuclear archive, which details an effort to build five nuclear weapons and prepare an underground nuclear test site in the early 2000s, has revealed an unpleasant truth ...
- [America’s Struggle with China and North Korea Is for Keeps](#) (The Hill)  
North Korea’s nuclear and missile capabilities have caught up with its malign intentions toward the United States and its allies. Thanks in part to Western mistakes in ignoring the threat, now it has both.
- [Time to Pull US Nuclear Weapons Out of Turkey](#) (Defense One)  
Complicating the relations are Turkey’s attempts to acquire Russian military technology, most notably the S-400 air defense system, while remaining part of United States’ F-35 stealth fighter program.

# NUCLEAR WEAPONS

Oak Ridge Today (Oak Ridge, Tenn.)

## Highly Enriched Uranium from UK Brought to Y-12 for Secure Storage

By John Huotari

May 14, 2019

Almost 700 kilograms of highly enriched uranium has been moved from the United Kingdom to the United States, and the material is being securely stored at the Y-12 National Security Complex in Oak Ridge for now, federal officials said.

The National Nuclear Security Administration said this month that the highly enriched uranium, or HEU, will be down-blended later into low enriched uranium for use as nuclear reactor fuel.

“The material was returned to Y-12 for secure storage awaiting future disposition,” the NNSA said in a statement provided Friday by Steven Wyatt of the NNSA Production Office in Oak Ridge.

Wyatt said Y-12 supported the removal effort, which was announced by the NNSA on May 3, through technical oversight and guidance of the processing and packaging of material.

“Planning is still under way, but the majority of the material is expected to be down-blended by commercial facilities,” according to the statement provided by Wyatt on Friday. “After downblending, the material can be reused as research or power reactor fuel.”

Highly enriched uranium can be used in nuclear weapons and naval nuclear reactors.

Y-12 is a production site for the nation’s nuclear weapons complex, and the 811-acre plant specializes in uranium components and processing. Y-12 has the Highly Enriched Uranium Materials Facility, but the NNSA did not say whether the highly enriched uranium from the U.K. will be stored in the HEUMF.

In its May 3 press release, the NNSA said the removal of the highly enriched uranium from the United Kingdom to the United States was completed by the NNSA, which is part of the U.S. Department of Energy, and the U.K.’s Nuclear Decommissioning Authority. It was a multi-year effort, the NNSA said.

The material was removed from the Dounreay nuclear site, which is on the coast in northern Scotland. More than a dozen U.S. and U.K. organizations participated in the removal, the NNSA said.

“The successful completion of the complex work to transfer HEU signaled the conclusion of an important part of the program to decommission and clean up Dounreay Site,” said David Peattie, chief executive officer of the U.K.’s Nuclear Decommissioning Authority.

It’s the largest removal of highly enriched uranium to the United States in the history of DOE/NNSA’s Office of Material Management and Minimization Nuclear Material Removal Program, according to the NNSA.

“U.S.-U.K. nuclear security ties have been resolute for more than 60 years,” said Lisa E. Gordon-Hagerty, DOE under secretary for nuclear security and NNSA administrator. “This joint effort highlights our strong cooperation and mutual nonproliferation goals.”

The NNSA said the removal is part of a worldwide effort to increase nuclear security by reducing HEU inventories. It also is part of a 2014 agreement between DOE/NNSA and the Euratom Supply

Agency to reduce HEU while supporting medical isotope production and research reactors in Europe.

The U.K. government said the HEU transfer from Dounreay to the United States was part of its commitment to the 2016 Nuclear Security Summit held in Washington, D.C.

The United Kingdom said the highly enriched uranium that will be down-blended in the United States will be used in civil nuclear reactors for entirely peaceful purposes.

The United States is sending a different form of the material to Europe, where it will be used as research reactor fuel and in the production of medical isotopes, the U.K. said.

<https://oakridgetoday.com/2019/05/14/highly-enriched-uranium-from-uk-brought-to-y-12-for-secure-storage/>

[Return to top](#)

Aiken Standard (Aiken, S.C.)

## **DOE Discloses Amount of Surplus Plutonium at SRS; Future Disposition Explained**

By Colin Demarest

May 17, 2019

Roughly 12 metric tons of surplus plutonium is currently stored at the Savannah River Site, a figure that was recently declassified by the U.S. Department of Energy, a National Nuclear Security Administration official said Thursday.

The approximate 12 metric tons includes material originally destined for the shuttered Mixed Oxide Fuel Fabrication Facility as well as material flagged for an ongoing downblending campaign at SRS, the official said. Downblending is a plutonium disposition method.

The DOE Office of Environmental Management – with help from the NNSA – is right now working to downblend 6 metric tons of weapons-usable plutonium, an NNSA spokesperson told the Aiken Standard.

Those 6 metric tons are wholly separate from the 34 metric tons of defense plutonium that was designated for disposal via MOX.

The matter had been previously reported by the local Oak Ridge Today.

Environmental Management, formed in 1989, is the SRS landlord and is tasked with cleaning up the government's nuclear legacy. The NNSA is a semiautonomous DOE agency in charge of the nation's nuclear outfit and related nonproliferation.

MOX, which the NNSA terminated in October 2018, was designed to turn weapons-grade plutonium into commercial reactor fuel; the project was more than a decade in the making and was over budget when it was axed.

Most of the material bound for MOX was never at SRS, the official said. A "majority" of the material once meant for MOX is right now being held northeast of Amarillo, Texas, at the Pantex Plant.

In May 2018, U.S. Secretary of Energy Rick Perry told congressional defense committees that the 34 metric tons of defense plutonium would be dispositioned via a method known as dilute-and-dispose – downblended, essentially.

Dilute-and-dispose involves mixing plutonium with special material and, in this case, sending it to the Waste Isolation Pilot Plant in New Mexico for long-term storage.

That MOX-replacing dilute-and-dispose campaign, still in its infancy, is officially known as the Surplus Plutonium Disposition Project. In fiscal year 2019, Congress authorized design work to support the project. Recently, the NNSA requested appropriations for the project as a capital line item.

The Surplus Plutonium Disposition Project entails the installation of three new gloveboxes, ventilation, "fire protections and other support equipment" at SRS, according to the NNSA spokesperson.

The disposition project – which both Perry and NNSA chief Lisa Gordon-Hagerty have said is cheaper and more efficient than MOX – will begin in 2028, according to a NNSA strategic roadmap. The map was made publicly available earlier this year alongside a cluster of other NNSA guidance documents.

If the "appropriate" National Environmental Policy Act analysis is finished before 2028, the NNSA can "begin processing" plutonium at SRS by way of current capabilities, the NNSA spokesperson said.

Meanwhile, the DOE is required to get 1 metric ton of defense plutonium out of SRS – out of the Palmetto State more broadly – by 2020. One half-metric ton has already been sent to the Nevada National Security Site, a move later disclosed in federal court documents.

The "Savannah River Site Integrated Mission Completion Contract" has been tacked on to the first page.

The move to Nevada roiled lawmakers. Nevada Gov. Steve Sisolak has said the clandestine shipments shredded the state's trust in the DOE.

Perry recently promised U.S. Sen. Catherine Cortez Masto, a Nevada Democrat, the DOE would begin relocating the half-metric ton away from NNSS in 2021. The effort will wrap by the end of 2026, Perry said.

Pantex is standing up a plutonium staging mission directly tied to the NNSA's plutonium removal efforts, according to independent oversight documents and confirming comments from the NNSA.

The matter was previously reported by the Aiken Standard.

The total 1 metric ton slated for removal will ultimately be sent to Los Alamos National Laboratory in New Mexico, according to a July 2018 NNSA study. It will be used for plutonium pit production, per the same information.

Plutonium pits are nuclear weapon cores.

[https://www.aikenstandard.com/news/doe-discloses-amount-of-surplus-plutonium-at-srs-future-disposition/article\\_69e43a30-78a2-11e9-90e5-4fac2c3a5f26.html](https://www.aikenstandard.com/news/doe-discloses-amount-of-surplus-plutonium-at-srs-future-disposition/article_69e43a30-78a2-11e9-90e5-4fac2c3a5f26.html)

[Return to top](#)

Defense News (Washington, D.C.)

## House Appropriations Target Trump's Nukes, INF Treaty Busting Weapons

By Aaron Mehta

May 20, 2019

WASHINGTON — While the Trump administration has made updating and upgrading America's nuclear arsenal a priority, a pair of key House appropriations subcommittees are setting up a fight over funding for fiscal year 2020.

While both the Defense and Energy and Water subcommittees, the latter of which oversees the National Nuclear Security Administration, will face a full committee markup of their funding plans on Tuesday, the two subcommittees released funding documents Monday. In both documents, key parts of the Trump administration's Nuclear Posture Review modernization plan take a hit.

Democrats, particularly House Armed Services Committee chair Rep. Adam Smith of Washington, have been vocal critics of the administration's plan to stand up two new nuclear warheads: the W76-2, a new low-yield variant of the warhead used on the Navy's Trident ballistic missile, and a future sea-launched nuclear cruise missile.

In both committees, the W76-2 suffered funding cuts. On the defense side, appropriators cut \$19.6 million intended to support the W76-2. Meanwhile the energy subcommittee zeroed out NNSA's \$10 million funding for the warhead.

Those funding changes, if enacted, would have little impact on production of the warheads, which are expected to be largely completed in FY19. But the defense cut is more impactful, as that funding would support the fielding of the new weapons.

"In taking this funding, House appropriators are making it clear that they oppose the warhead and moving forward with deployment," said Kingston Reif of the Arms Control Association. "And House authorizers appear poised to reinforce that message."

Proposed funding for a study on how to move forward with the sea-launched cruise missile gets no funding from the energy subcommittee. However, the defense subcommittee supports a \$5 million request for that study from the Navy — while noting that "the Committee is concerned with the potential costs and operational impacts of this potential additive acquisition program."

Hence, it requires a report within 90 days that would provide an "estimated cost of a SLCM-N acquisition program, an estimate of the increased operational and security costs that would be imposed on the fleet by a SLCM-N, an assessment of whether possession of a SLCM-N by Navy submarines would affect access to overseas ports and facilities, and a description of the validated military requirement."

In addition to those two new warheads, the NPR called for extending the life of the B83 nuclear bomb beyond its planned expiration date, a funding project which would fall fully to NNSA. The energy subcommittee declined to support that.

With the U.S. formally withdrawing from the Intermediate Nuclear Forces (INF) treaty, the Pentagon is pursuing at least three ground-based systems that would have violated that agreement. However, the defense appropriations committee zeroes out the research and development funds for those systems.

Much like the nuclear cuts, the funding drop on these systems is in line with party politics, as Democrats have roundly criticized the INF decision — something Reif thinks will continue when the HASC finishes its authorization language.

“Following the 2018 midterms elections, it seemed likely that the new Democratic-led House would provide more aggressive oversight of the Trump administration's unnecessary, unsustainable, and unsafe plans to augment the role of nuclear weapons and retreat from the longstanding U.S. leadership role on arms control and nonproliferation,” Reif said. “The House appropriations committee has put down some initial markers that do just that.”

It is likely the changes revealed Monday will lead to tensions with the Senate, where the Republican majority, particularly under Senate Armed Services Chairman Jim Inhofe of Oklahoma, has given vocal support both for leaving the INF and for upgrading America's nuclear arsenal.

<https://www.defensenews.com/congress/2019/05/20/house-appropriators-target-trumps-nukes-inf-treaty-busting-weapons/>

[Return to top](#)

Defense One (Washington, D.C.)

## **Nuclear Weapons Are Getting Less Predictable, and More Dangerous**

By Patrick Tucker

May 16, 2019

On Tuesday, U.S. Secretary of State Mike Pompeo met his counterpart, Russian Foreign Minister Sergey Lavrov, to discuss, among many things, the prospect of a new, comprehensive nuclear-weapons treaty with Russia and China. At the same time, the Pentagon is developing a new generation of nuclear weapons to keep up with cutting-edge missiles and warheads coming out of Moscow. If the administration fails in its ambitious renegotiation, the world is headed toward a new era of heightened nuclear tension not seen in decades.

That's because these new weapons are eroding the idea of nuclear predictability.

Since the dawn of the nuclear era, the concept of the nuclear triad — bombers, submarines, and intercontinental ballistic missiles — created a shared set of expectations around what the start of a nuclear war would look like. If you were in NORAD's Cheyenne Mountain Complex in Colorado and you saw ICBMs headed toward the United States, you knew that a nuclear first strike was underway. The Soviets had a similar set of expectations, and this shared understanding created the delicate balance of deterrence — a balance that is becoming unsettled.

Start with Russia's plans for new, more-maneuverable ICBMs. Such weapons have loosely been dubbed “hypersonic weapons” — something of a misnomer because all intercontinental ballistic missiles travel at hypersonic speeds of five or more times the speed of sound — and they create new problems for America's defenders.

“As I stand here today, I don't know what that solution set looks like,” Gen. Paul Selva, the Vice Chairman of the Joint Chiefs of Staff, said at an Air Force Association event in April. “If you're going Mach 13 at the very northern edge of Hudson Bay, you have enough residual velocity to hit all 48 of the continental United States and all of Alaska. You can choose [to] point it left or right, and hit Maine or Alaska, or you can hit San Diego or Key West. That's a monstrous problem.”

This makes it harder for U.S. leaders, in the crucial minutes before a potentially civilization-ending nuclear strike, to understand just what kind of weapon is inbound.

“Our indications and warnings today are based on modestly maneuvering reentry vehicles that have a ballistic trajectory until the warhead leaves the missile,” Selva said. They basically consist of



a heat bloom “that tells you, ‘You are under attack,’ and one radar hit that tells you where the ballistic trajectory is going.”

Those two data points give a “reasonable probability” of predicting where a conventional ICBMs will land, he said. “That gives us some assurance that we can provide a nuclear command and control structure that has enough decision time in it to react if we’re under massive attack or to make a decision not to react if we’re not. Hypersonics begin to tear apart that indicators-and-warning system.”

So Pentagon officials are looking to launch a new network of low-Earth-orbit satellites that can better track maneuvering intercontinental missiles. (They are also developing hypersonic weapons of their own; some ground-based engine tests are slated for later this year.)

Another wildcard is the future of variable- or low-yield nuclear weapons. Russia has perhaps 2,500 of these smaller nukes, according to Hans M. Kristensen of the Federation of American Scientists. Russian doctrine contemplates using mini-nukes to secure tactical victory on an otherwise conventional battlefield, reasoning that the United States would be unwilling to strike back with a much larger weapon that might, say, also destroy a nearby city. The Pentagon calls this the “escalate to de-escalate” doctrine.

The United States is starting to build a new generation of smaller nukes of its own. The reasoning was laid out in the 2018 Nuclear Posture Review, and the weapons have been rolling off the assembly line since January.

“A limited number of low-yield nuclear weapons provides the president with an option where we can say, ‘If the Russians attacked us with a low-yield nuclear weapon, we have an option to reply in kind that is inherently de-escalatory and stabilizing,’” Selva said.

But Selva also noted that low-yield weapons present the same sort of ambiguity as hypersonic weapons.

“We don’t know what they launched at us until it explodes,” he said.

The U.S. military has responded to Russian weapons development with several other key moves: building a next-generation air-launched cruise missile, hiring Northrop Grumman to build a new penetrating bomber, lowering the nuclear yield on some sub-launched ballistic missiles, and exploring bringing back a sea-launched cruise missile, or SLCM, that could have a nuclear tip.

“This suite of systems will provide capabilities that enable the United States to threaten limited response options of varying sizes against targets throughout Russia and, if needed, against deployed Russian forces,” according to a March report from the Center for Naval Analysis, or CNA.

A senior Defense Department official said a new SLCM might add to the nation’s arsenal of low-yield nukes, or simply replace current warheads if arms-control agreements require.

Warhead numbers are less important than they used to be. The U.S. isn’t interested in matching Russia’s number of small-yield bombs. It doesn’t have to. One of the benefits of having lots of ambiguous weapons is that all of your missiles and bombs become a bit more threatening.

“They have many more than we do, that’s true,” said Selva of the low-yield nuclear bombs. “But we now have a way to answer that threat. It’s important to have that as part of our option set.”

Lynn Rusten, vice president of the Global Nuclear Policy Program at the Nuclear Threat Initiative, said that the ambiguity problem would apply to the SLCMs effort as well. “We use conventional SLCMs a lot in our normal warfare. If you start having nuclear SLCMs deployed as well, there will be a real discrimination in terms of when one of those things is launched, what is that thing coming at you? Where is it going?”

As new weapons inject new uncertainty into nuclear strategy, the Trump administration's main responses have been to tear up one arms-control treaty, remain non-committal on extending another, and to propose a third: a new, comprehensive nuclear-weapons agreement between China, Russia, and the United States.

After his Tuesday meeting with Lavrov, Pompeo said Trump had "charged his national security team to think more broadly about arms control, to include countries beyond our traditional U.S.-Russia framework and a broader range of weapon systems. The president wants serious arms control that delivers real security to the American people. And we know – and I think we agree on this – to achieve these goals, we'll have to work together, and that it would be important that, if it's possible, we get China involved as well."

But experts say Beijing has no interest in such an agreement. For one thing, its nuclear arsenal is far smaller than the U.S. and Russian ones — though it has recently developed a ballistic-missile submarine fleet and is outpacing the United States in hypersonics.

"China's longstanding policy is that it will join the process once Washington and Moscow have completed deep and irreversible reductions and fore sworn the right to use nuclear weapons first," the CNA report said.

The report also notes that Beijing would be reluctant to submit to the kind of transparency and verification arrangements that make arms-control treaties work.

"In China's policy, opacity makes a major contribution to the survivability of its smaller nuclear force. Chinese policy statements often assert that the United States, as the stronger power, has an obligation to be transparent about its capability, while China is entitled to opacity because disclosing more detailed information about the size, composition, geographic locations, and planned trajectory of its nuclear posture would create operational vulnerabilities," it said

Many arms control experts say the first and most important step that the U.S. could take in navigating this far more unpredictable future is to extend New START. Even Selva, who declined to offer a public recommendation about such an extension, said that the United States benefits in multiple ways from the treaty's mechanisms for keeping track of the parties' strategic arsenals. "The treaty is what the treaty is. Does the extension of the treaty accrue to our national interest? That's the only question we should ask. If we choose not to extend the treaty we live in a world without an accountable set of numbers. Does that accrue to our national interest? That is the way I believe we should have this debate," he said.

The CNA paper goes further, saying that the treaty is a bulwark against inefficiency, ignorance, and ultimately, unpredictability.

"Without New START's cooperative transparency practices, the U.S. intelligence community would likely devote more resources to monitoring Russian strategic nuclear forces but have less insight and less confidence in its analytical judgements," it said. "The United States would face an opportunity cost of diverting scarce national technical means (NTM), such as satellites, and technical analysts from other missions. Russian defense officials would also navigate increased uncertainty and lose the ability to confirm that the United States has not reversed its New START reductions. Neither country would have the same degree of confidence in its ability to assess the other's precise warhead levels. Worst-case scenario planning is also more likely as a result."

The administration's internal policy debate has begun to anger some lawmakers. On Wednesday, the Senate Foreign Relations Committee heard testimony from Undersecretary of State for Arms Control and International Security Andrea L. Thompson. She said renewing New START might not be in the best interests of the country, and that the administration was looking at it. But she declined to elaborate.

So Sen. Bob Menendez, D-N.J., asked her, “If New START expires could Russia target the United States with hundreds or possibly thousands of additional nuclear warheads?”

Thompson responded that that was a good question for Russia but she wasn’t going to answer hypothetical questions.

Menendez exploded. “It’s not a hypothetical. It’s what would happen if we cannot verify what they’re doing.”

A collapse of New START might also cause China to embrace a more aggressive nuclear stance to hedge against rising unpredictability.

Tong Zhao, a fellow in Carnegie’s Nuclear Policy Program at the Carnegie–Tsinghua Center for Global Policy, wrote that the treaty’s end could “increase Chinese uncertainty about the sizes of U.S. and Russian strategic nuclear arsenals and so exacerbate China’s concerns about their numerical growth. Second, a lack of transparency would lead the U.S. and Russian arsenals to grow faster than they otherwise would, and lead China to attribute such growth to more aggressive intentions of the two big nuclear powers.”

As uncertainty increases, misperceptions become more dangerous. And there is reason to believe the United States is already looking at the situation through various imperfect lenses. One is the belief that China has any interest in trilateral arms control. Another is “escalate to de-escalate.” Some Russia experts, such as Olga Oliker, the Europe and Central Asia director at the International Crisis Group, call it a fiction dreamed up in the West after a misreading of a Russia’s 2017 Naval Doctrine.

“Moscow continues to believe, and Russian generals in private conversations emphasize, that any conventional conflict with NATO risks rapid escalation without ‘de-escalation’ — into all-destroying nuclear war. It must therefore be avoided at all costs,” she wrote in February.

“If anything, U.S. emphasis on new lower-yield capabilities — effectively an ‘escalate to de-escalate’ strategy of the sort many attribute to Russia — would undermine the deterrent balance, potentially triggering the very sorts of crises low-yield proponents hope to avert.”

Michael Kofman, a senior research scientist at CNA, says the “escalate to de-escalate” debate obscures a more fundamental truth about Russian strategic doctrine. “Russia has never accepted the proposition that a war with the United States could be conventional only. Hence, Russian nuclear strategy has a firm place for scalable employment of nuclear weapons, for demonstration, escalation management, warfighting, and war termination if need be,” he told Defense One. “The gist of the problem is that the Pentagon believes that nuclear weapons are some kind of gimmick that can be deterred in conventional war, but actually the prospect for conventional-only war with Russia is somewhat limited from the outset.”

Bottom line: the U.S., Russia, and China, may be entering into a high-stakes discussion on nuclear arms with each suffering from severe misconceptions about the others’ intent. The price of failure of the new negotiation effort, if New START is not re-affirmed, would be a new period of heightened nuclear tensions and less predictability.

Rusten believes the arms race has already begun.

“We don’t want to be where that trajectory will take us five years from now,” she said.

<https://www.defenseone.com/technology/2019/05/everyones-nuclear-weapons-are-getting-less-predictable-and-more-dangerous/157052/?oref=d-river>

[Return to top](#)

# US COUNTER-WMD

National Defense (Arlington, Va.)

## **Chemical Analyzer Chosen in Tech Refresh Program**

By Mandy Mayfield

May 17, 2019

A handheld system able to detect a wide-range of hazardous material will soon be deployed globally as part of the Army's updated dismounted reconnaissance sets, kits and outfits program.

The Rigaku Progeny ResQ — which is built by Wilmington, Massachusetts-based Rigaku Analytical Devices — is a portable spectroscopic analyzer that can be used to analyze liquids, pastes, powders and gels, said Nancy Otto, the company's North America director of sales, safety and security markets.

The technology is able to identify hazardous chemicals that are inside of a container without having to remove them, she said. "It can keep the user safe from harm from exposure to potential hazards because they're not opening the container and taking the sample out to analyze it," she noted.

The device has a library of approximately 13,000 chemicals and compounds that can be identified including explosives, narcotics, toxic chemicals and chemical warfare agents, Otto said.

The product went through rigorous testing to get on the list for approved equipment for the Army's program, Otto said. "This was a two-and-a-half-year program of evaluation for us to be approved," she added.

The dismounted reconnaissance sets, kits and outfits program is a family of sensors, protective suits and other products that give soldiers the tools they need to help them detect and isolate chemical hazards in the field, according to the Army.

The analyzer will be put into service kits that go out into the field. Orders began in January, Otto said. The Army plans to put together hundreds of kits.

The company was founded in 2011. The product the Army recently ordered has only been on the market since 2015.

The Progeny ResQ is also offered commercially and was not originally designed for the military. No modifications were made to the product before the Army acquired it, Otto said.

Rigaku originally started by marketing its products to pharmaceutical companies, but it now sells them to a wide variety of safety and security customers, she said.

"We sell to a lot of the hazmat teams, the FDA, the FBI — a lot of federal agencies," Otto said. "It has a wide range of applications across the safety and security agencies."

Correction: This story has been updated to correct the name and location information for Rigaku Analytical Devices, and Nancy Otto's job title.

<http://www.nationaldefensemagazine.org/articles/2019/5/17/chemical-analyzer-chosen-in-tech-refresh-program>

[Return to top](#)

# US ARMS CONTROL

VOA (Washington, D.C.)

## **Reports: Iran Increases Production of Enriched Uranium**

Author Not Attributed

May 20, 2019

Iran has increased production of low-enriched uranium at a time of tensions with the United States over Iran's nuclear deal with western powers.

Two semi-official Iranian news agencies reported Monday that Iran now produces four times as much low-enriched uranium as before. Enriched uranium can be used to produce nuclear power. It also can be used to make nuclear weapons.

The news agency reports appeared just after U.S. President Donald Trump warned Iran it would face its "official end" if it ever threatened America again.

His warning comes after days of increased tensions between the two sides. The tensions were fueled by the Trump administration's deployment of bombers and an aircraft carrier to the Persian Gulf. U.S. officials have defended the move, saying it was to answer threats from Iran.

Administration officials plan to inform U.S. lawmakers on Tuesday about the threat they say that Iran poses to the country and U.S. interests.

Earlier this month, officials of the United Arab Emirates claimed that four oil transport ships were sabotaged. Yemeni rebels allied with Iran used drone aircraft to launch an attack on an oil pipeline in Saudi Arabia. And U.S. diplomats said airline companies could be mistakenly attacked by Iran, an idea Iran has dismissed.

### Timeline of Iran's nuclear program

The tensions between Iran and the United States come one year after Trump decided the U.S. would withdraw from a nuclear deal between Iran and world powers.

Both the United States and Iran say they do not want war. Yet many observers worry any mistake by either side could lead to events out of their control.

Both the semi-official Fars and Tasnim news agencies reported on the increased production of enriched uranium. They said the information came from a spokesman for Iran's nuclear agency. The official said Iran "in weeks" would reach the 300-kilogram limit set by the nuclear deal. He added that the government had informed the International Atomic Energy Agency about its move.

Trump's comment came just hours after a Katyusha rocket fell in Baghdad's Green Zone, about 1.5 kilometers from the U.S. Embassy. No injuries were reported.

An Iraqi military official told the Associated Press that the rocket was fired from East Baghdad. That area is home to many Iran-supported militias.

Trump wrote on Twitter, "If Iran wants to fight, that will be the official end of Iran. Never threaten the United States again!"

Iranian Foreign Minister Mohammad Javad Zarif tweeted that Trump was making "genocidal taunts. He ended his tweet with "Try respect - it works!"

Other developments

Trump ordered the U.S. withdrawal from the 2015 nuclear agreement with Iran and strengthened sanctions against Iran. The U.S. government also has warned of actions against other nations if they import Iranian oil.

Iran just announced it was backing away from the nuclear deal in which Iran agreed to limit its enrichment of uranium if sanctions were removed. Iran has given European countries 60 days to come up with a new deal or it will begin enriching uranium at a higher level.

Iran has always said it does not seek nuclear weapons. But Western nations have questioned this claim.

Appearing on Fox News television on Sunday, Trump called the 2015 nuclear deal a “horror show.” “I just don’t want them to have nuclear weapons and they can’t be threatening us,” he said.

Yet the nuclear deal had prevented Iran from getting enough highly-enriched uranium for a bomb. United Nations inspectors repeatedly said that Iran was honoring the deal.

On Sunday, the U.S. Navy announced it would begin security patrols in international waters along with members of the Gulf Cooperation Council. The council includes many Gulf States.

VOANews.com and The Associated Press reported this story. Susan Shand adapted the report for VOA Learning English. George Grow was the editor.

<https://learningenglish.voanews.com/a/reports-iran-increases-production-of-enriched-uranium/4925110.html>

[Return to top](#)

Defense One (Washington, D.C.)

## **Poll: Americans Want to Stay in Nuclear Arms Control Agreements**

By Patrick Tucker

May 20, 2019

As the Pentagon prepares to spend about a half trillion dollars over a decade on new nuclear weapons, a new poll suggests that the public favors a more constrained nuclear posture and is growing more skeptical of weapons that are in the U.S. arsenal already. A majority of respondents also favored restraining the president from launching a nuclear strike before seeking congressional approval.

The poll from the Center for International and Security Studies at the University of Maryland asked a bipartisan group of 2,264 people for their opinions on a variety of nuclear weapons issues.

The results showed, for starters, that many Americans don’t know how big the U.S. nuclear arsenal is. When told that the United States has 4,000 nuclear weapons, 41 percent said the number was bigger than they expected (57 percent of Democrats, 34 percent of Republicans.)

Eighty percent of the respondents, including 77 percent of Republicans, favor extending the New START Treaty beyond its 2021 expiration. New START limits the number of strategic nuclear weapons that the United States and Russia can deploy and allows for each party to verify the other’s deployed arsenal. Some military leaders have pointed out that the Treaty doesn’t include some of Russia’s newer nuclear weapons; others have argued for replacing it with a new, similar treaty with China.

On the issue of withdrawing from treaties, two-thirds of the respondents, including most Republicans, said the United States should stay in the INF Treaty, which limits the number of intermediate-range missiles that both sides can deploy. The United States has said it will exit the Treaty, citing Russian violations.

About 60 percent of the respondents favored “phasing out” U.S. intercontinental ballistic missiles, or ICBMs. Many arms control advocates, including former Defense Secretary William Perry, consider ICBMs to be the portion of the nuclear triad — missiles, bombers, submarines — that poses the most risk of accident for smallest reward in terms of deterrence (since they must be launched with just minutes of warning.) But there was a big caveat among respondents. “Only one-third favor unilaterally reducing the net number of strategic warheads in the U.S. arsenal instead of putting more warheads on submarines and bombers to keep the same total as the Russians,” according to the survey.

On the issue of the presidential power to use nuclear weapons first in conflict, six in ten Republicans, and about 75 percent of the respondents overall, supported legislation requiring that U.S. president obtain permission from Congress before launching an attack. But, when they were presented with the counterargument that such a requirement would weaken deterrence, 53 percent called found the counterargument at least “somewhat” convincing.

Some members of the arms control community welcomed the findings.

“This poll shows that Americans support smart diplomacy over expensive, dangerous nuclear weapons in a big way,” said Tom Collina, who directs policy at the Ploughshares Fund. “They want to limit President Trump’s sole authority to use nukes first. They want arms control, not an arms race. They rightly believe we are spending too much money on nuclear weapons. This should be a wake-up call to President Trump that his excessive and destabilizing nuclear plans are out of step with the American public.”

Kingston Reif, the Director for Disarmament and Threat Reduction Policy at the Arms Control Association, saw bright spots in the responses for politicians looking to advance a strong arms control agenda. “Majorities view nuclear weapons as necessary, but majorities also support negotiated reductions with Russia and other nuclear-armed states. Majorities are concerned about the President’s sole authority to launch a nuclear strike, but majorities are cautious about a no first use policy. There is also a partisan divide (though less of one in this poll than in some others I have seen). Finally, when provided with cost estimates, the majority of Americans believe we spend too much on nuclear weapons.”

But some nuclear weapons watchers were more skeptical of the survey’s findings. Peter Huessy, President of the defense consultancy group GeoStrategic Analysis, said that many of the poll’s questions were framed in a way that pushed a certain result. For instance, Huessy said, the 4,000 number did not reflect that most bombers and submarines are not on alert, and so the number of “ready-to-go” warheads is under 1000. That includes “400 Minuteman warheads and one-third of our submarines in their patrol box at sea or four subs each with roughly 20 missiles and each missile with five warheads,” he says.

Huessy further took aim at the way the question on the INF Treaty withdrawal was worded. The survey said, “The U.S. has accused Russia of violating the treaty, but Russia has denied it. Similarly, Russia has accused the U.S. of violating the treaty, but the U.S. has also denied it.”

That wording makes it sound as though the consensus on Russia’s violation was far smaller than it is. In fact, observed Russian violations of the INF go back to the Obama administration. Also, the United States is not alone. NATO has supported U.S. conclusions on the Russian violation.

Said Huessy, "If you rig the poll questions, as the former president of Roper polling once told me, you can get exactly the answer you want."

Regardless, some members of House Defense Appropriations Subcommittee appear willing to challenge the Defense Department on the size and scale of Pentagon's nuclear plans. A House Defense Appropriations Bill report that came out on Monday recommends \$460 million in funding new ICBM development, nearly \$100 million less than the Pentagon requested; and the report zeros out the Pentagon's \$100 million request for new intermediate-range missiles that would violate the INF Treaty.

<https://www.defenseone.com/politics/2019/05/poll-americans-want-stay-nuclear-arms-control-agreements/157144/>

[Return to top](#)

The Hill (Washington, D.C.)

### **Trump: "I Will Not Let Iran Have Nuclear Weapons"**

By Zack Budryk

May 19, 2019

President Trump said in a Sunday night Fox News interview that he doesn't want to go to war with Iran but emphasized he will never allow the nation to develop nuclear weapons.

"I will not let Iran have nuclear weapons," Trump told Fox News host Steve Hilton. "I don't want to fight. But you do have situations like Iran, you can't let them have nuclear weapons — you just can't let that happen."

Trump has reportedly grown frustrated with the hard-line approach toward Tehran taken by national security adviser John Bolton and Secretary of State Mike Pompeo and wishes to negotiate directly with Iranian leaders, but escalated his own rhetoric earlier Sunday afternoon, warning that a military engagement would mean "the official end of Iran."

Tensions have risen between the two countries in recent weeks, with Bolton announcing a carrier group would be deployed to the Persian Gulf in response to unspecified acts of aggression by Iran, while Iran announced it will scale back some of its commitments under the 2015 nuclear deal on the anniversary of Trump's announcement the U.S. would withdraw from the deal entirely.

"I ended the Iran nuclear deal, and actually, I must tell you — I had no idea it was going to be as strong as it was. It totally — the country is devastated from the standpoint of the economy," Trump said Sunday.

<https://thehill.com/homenews/administration/444502-trump-i-will-not-let-iran-have-nuclear-weapons>

[Return to top](#)



# COMMENTARY

The Hill (Washington, D.C.)

## **What to Do with the Crown Jewels of Iran's Nuclear Program**

By David Albright and Olli Heinonen

May 16, 2019

Israel's acquisition in early 2018 of a significant portion of Iran's nuclear archive, which details an effort to build five nuclear weapons and prepare an underground nuclear test site in the early 2000s, has revealed an unpleasant truth: Iran has been in violation of the spirit, if not the letter, of the nuclear Non-Proliferation Treaty (NPT), the 2015 nuclear deal, and other non-proliferation commitments. This finding is supported by the recent U.S. State Department's arms compliance report that "Iran's retention of the archives ... raise[s] serious questions regarding whether Iran intended to preserve the option to resume elements of a nuclear weapons program in the future."

Instead of demanding a nuclear standard for Iran that the International Atomic Energy Agency (IAEA) has applied to other countries, however, many are turning a blind eye to Tehran's dangerous transgressions. This tendency could be worsened by Iran's recent announcement that it intends to stop abiding by some of the nuclear limitations of the Joint Comprehensive Plan of Action (JCPOA). Why would a country that claims its nuclear program is permanently peaceful maintain such information and equipment? Continuing to permit it to do so will further weaken the nonproliferation regime and increase the odds that other states will exploit similar negligence, concessions and loopholes.

The seized archive consists of 55,000 printed pages and another 55,000 computer files on discs. This trove shows a robust program in the early 2000s to build nuclear weapons. Under intense international pressure in 2003, Iran downsized it, but the archive shows that instead of ending it, Iran reoriented its nuclear weapons program to survive as a smaller, more camouflaged one. This collection isn't for Iranian historians: it clearly is designed to be used to preserve and reconstitute a path to an atomic arsenal, if so decided. It is today actually the crown jewels of Tehran's nuclear-weapons program.

The documents show that Iran's atomic ambitions were much further along than previously known. Most worrisome, breakout time for a missile-deliverable nuclear warhead was much shorter than U.S. officials thought likely.

Politics and pride invested in past diplomacy, certainly not nuclear prudence, may explain why this damning documentation has been treated very differently than other atomic-bomb paperwork found in non-nuclear-weapon states that signed the NPT. Consider the case of Switzerland, where the George W. Bush administration saw Bern's possession of atomic-weapons designs and a range of other sensitive nuclear documents as a violation of the country's NPT obligations.

The Swiss government had seized a large cache of documents from nuclear smugglers connected to the notorious A.Q. Khan proliferation network. It contained nuclear-weapon designs. Many of the documents were essential to the prosecution of these men. In 2006, Washington demanded that all the documents be removed from Switzerland. The Swiss decided instead to destroy them, under the supervision of the IAEA, ruling that their continued possession of sensitive nuclear weapons designs would be a violation of the NPT.

Another case is Libya, where the IAEA sealed the nuclear weapons-related documents, and Washington took possession of the nuclear weapons designs. The set of nuclear-weapon documents currently in Iran far outstrips what Switzerland and Libya ever possessed.

When South Africa dismantled its bomb program, Pretoria decided to destroy thousands of sensitive nuclear-weapon documents and related industrial infrastructure. It viewed the destruction of documents and associated equipment and materiel, correctly, as an essential part of providing assurance that South Africa would abide by the NPT. When the IAEA inspected the program, it asked that more documents, components and equipment be destroyed — and Pretoria quickly did so.

What should the major powers and the IAEA do? The presumption ought to be that Tehran's possession of such an archive violates the NPT and the 2015 JCPOA. More robust IAEA inspections are obviously required, with inspectors gaining access to the documents, relevant facilities, equipment and key personnel mentioned in the seized part of the archive. Note: several facilities mentioned in this archive were not previously known to the IAEA and Western governments. Iran should not destroy any information or equipment, or alter locations before the IAEA has completed its investigations. Those investigations should include weapons experts with proper clearances. At the end of the inspection process, proliferation-sensitive information and equipment, where ongoing possession is not in line with Iran's undertaking under Article II of the Nuclear Non-Proliferation Treaty, should be destroyed or removed from Iran in a verifiable manner.

Of course, Iran could make copies or documents could be missed. But a thorough review of the documents is essential in setting up a baseline with relevant locations and capabilities for long-term monitoring and the early detection of any illicit activity, if any of these activities are reconstituted.

To not do this is to ignore international precedent and a rule-based order essential to maintaining nuclear non-proliferation. Allowing this transgression to stand undermines the NPT and leads to further questions about the value of the JCPOA. It also weakens the credibility of IAEA verification. If Iran's atomic programs are truly peaceful, it should be willing to subject its archive to scrutiny and ultimately to verified destruction.

Other countries that aspire to build nuclear weapons will be watching. Some diplomats in Vienna claim that destruction and further exposure of Iran's weapons plans will cause further instability in the implementation of the JCPOA. But does the maintenance of such archives create stability when Iran again starts to expand its uranium enrichment efforts, and continues adding importantly to its missile programs? Likely not. Non-action is not an option.

David Albright is president and founder of the Institute for Science and International Security in Washington, D.C.

Olli Heinonen is former deputy director general of the International Atomic Energy Agency and head of its Department of Safeguards. He is a senior advisor on science and nonproliferation at the Foundation for Defense of Democracies in Washington.

<https://thehill.com/opinion/international/443333-what-to-do-with-the-crown-jewels-of-irans-nuclear-program>

[Return to top](#)

The Hill (Washington, D.C.)

## **America's Struggle with China and North Korea Is for Keeps**

By Joseph Bosco

May 17, 2019

Existential struggles are not conducive to compromise, especially when the opposing sides see the competition in those stark terms. The United States is in such confrontations with the People's Republic of China (PRC) and its junior communist ally, the Democratic People's Republic of Korea (DPRK).

North Korea's dynastic regime has viewed the United States as its implacable enemy at least since the Korean War when America stopped it from conquering the South. It still presents an existential threat against South Korea with thousands of artillery tubes targeting Seoul, and America still stands in its way.

Three generations of Kim regimes have finally succeeded in making their small, impoverished country enough of a nuclear and missile power to constitute a mortal threat to cities in the United States and to its Japanese ally. The weapons were developed to deter the U.S. either from an unprovoked attack or from defending the South against another North Korean invasion. Now they also strengthen Pyongyang's — and Beijing's — leverage over the West.

The fact that North Korea was able to accomplish that goal with material support and diplomatic cover from Communist China spoke volumes about the intentions of Beijing itself — but Washington and the West were not listening.

Though China had been a nuclear weapons and ballistic missile state since the 1960s, perceptions of its intentions had evolved. In the first decades of the PRC, Mao Zedong's "wars of national liberation" proclaimed his designs on the international order. He once said that China would benefit from a nuclear war between the major powers — the tens of millions of people killed would deplete Russia and America but leave China with a reduced, yet still massive and intact, population. For perspective on the monstrosity of Mao's thinking, his rule is estimated to have caused the deaths of anywhere from 30 million to 70 million Chinese.

After Mao himself passed from the scene, it was universally assumed that virulent anti-U.S., anti-Western hatred also had mercifully ended. China's intentions no longer were seen as irreparably antagonistic toward the West, which was now irreversibly committed to the policies of engagement. The era of the reform-minded, low-key Deng Xiaoping was characterized by his admonition to the Communist Party: hide our capabilities and bide our time — which effectively meant hide our intentions. The decades of Chinese militarization that followed were met in the West by decades of benign neglect.

It took the arrival of Xi Jinping and his open avowal of Maoist ideological fervor to confirm that Chinese communist attitudes toward the rules-based international order and its leading exponent, the United States, never really disappeared but only remained disguised behind the cloak of engagement.

Unlike its predecessors, the Trump administration decided to confront North Korea and China, diplomatically at first, then with economic measures, including tariffs for violations of trade rules and punitive sanctions for flouting international restrictions on nuclear and missile development.

The president decided to leaven his firm stances with friendly rhetoric expressing respect and even affection for the two dictators. When they abused his trust, he dismissed charges of bad faith against them, excusing Kim Jong Un of responsibility for Otto Warmbier's death and downplaying

Pyongyang's recent missile launches as "standard" behavior. He gave Xi a complete pass while China continued to subvert United Nations Security Council sanctions against North Korea.

Trump needs to acknowledge, at least to himself, that his personal sunshine strategy may be undermining the effect of his administration's firm approach. His expressions of good feelings toward the North Korean and Chinese leaders can induce them, or hardliners in their regimes, to believe that at any moment the president is about to overrule his sound national security team and return to the more accommodationist policies of prior administrations.

That would be unfortunate, since the president's strong policies have succeeded in encouraging U.S. allies and security partners to join Washington in resisting unlawful and aggressive North Korean and Chinese behavior. Following America's lead, ships from NATO allies have made defiant, but perfectly legal, transits through the Taiwan Strait, despite Beijing's expressions of outrage.

In recent days, navies from a number of regional countries have joined the U.S. Navy in operations in the South China Sea in repudiations of China's illegal and absurd claim to virtually that entire body of international water.

These are good beginnings for an awakened international community's challenge to the two dangerous Asian powers, but more needs to be done to sustain the effort and it will require continued U.S. leadership.

Given North Korean and Chinese foot-dragging and reneging on prior commitments, and in addition to other symbolic and substantive measures proposed here and elsewhere, the administration should consider the following:

Restore and resume the full program of joint U.S.-Republic of Korea defense exercises;

Impose secondary sanctions on Chinese banks and other entities doing business, directly or indirectly, with any North Korean entities;

Expand Taiwan Strait and South China Sea transits and Freedom of Navigation Operations, including sending ships through the international waters within 12 miles of the artificial islands (in normal operational mode, not in innocent passage) and through China's territorial waters astride the Strait (in innocent passage, as China did off the coast of Alaska);

Conduct periodic disaster relief/humanitarian assistance exercises with Japan, Australia, Thailand, Taiwan, Philippines, South Korea and any other country interested in participating;

As China retaliates against justified U.S. tariffs with unjustified Chinese tariffs, consumers should be encouraged to boycott Chinese goods, where practicable, starting with those whose prices have increased during the trade dispute; and

Undertake a broad public information campaign to explain to Americans why some economic sacrifices are necessary to confront the aggressive actions of China and North Korea and their impact on U.S. economic and national security — a trade war is better than a shooting war.

North Korea's nuclear and missile capabilities have caught up with its malign intentions toward the United States and its allies. Thanks in part to Western mistakes in ignoring the threat, now it has both. China long has had both menacing capabilities and hostile intent, but that same wishful thinking disregarded the danger for too long. Now we must confront the threats from both adversaries by a steady ratcheting up of pressure. Others in the West have begun to show they are prepared to join the existential struggle.

Joseph Bosco served as China country director for the secretary of Defense from 2005 to 2006 and as Asia-Pacific director of humanitarian assistance and disaster relief from 2009 to 2010. He is a

nonresident fellow at the Institute for Korean-American Studies and the Institute for Taiwan-American Studies and is a member of the advisory board of the Global Taiwan Institute.

<https://thehill.com/opinion/international/443534-americas-struggle-with-china-and-north-korea-is-for-keeps>

[Return to top](#)

Defense One (Washington, D.C.)

## **Time to Pull US Nuclear Weapons Out of Turkey**

By Harvey M. Sapolsky

May 17, 2019

Amid the recent self-congratulatory celebrations of the North Atlantic Treaty Organization's 70th anniversary, there was no mention one of its strangest policies: the nuclear sharing program that keeps American nuclear bombs in five NATO countries (Belgium, the Netherlands, Germany, Italy and Turkey) and trains host air forces to use them. Thus at Incirlik Air Base in Turkey, about 100 miles from the Syrian border, the United States stores some 20 to 80 B61 nuclear weapons for delivery by Turkish or American aircraft. There is not much comfort in knowing that these weapons are under direct American control in heavily guarded bunkers and are designed to be unusable without the proper codes. It is time to bring them home.

American-Turkish relations are not good and are likely to turn worse. Kurds populate parts of Turkey's border with Syria and Iraq and have been our close ally in the struggle with the Islamic State, but are regarded by the Turks as secessionists and terrorists. The United States has promised not to abandon the Kurds as it has in the past, but that promise puts the United States' hopes to stabilize the region on a collision path with Turkey.

Complicating the relations are Turkey's attempts to acquire Russian military technology, most notably the S-400 air defense system, while remaining part of United States' F-35 stealth fighter program. Turkey is an industrial partner in the F-35 program and is scheduled to purchase 100 of the aircraft. The first of Turkey's F-35s are ready for delivery. But Turkey is also scheduled to receive soon the first components of the Russian S-400 system it has purchased, which American military officials have said is incompatible with Turkish possession of the F-35; The fear is that details of the fighter's stealth features and performance will be revealed to the Russians who will help maintain the S-400.

Nuclear sharing began in the 1960s as a way to assure European members of NATO of America's commitment to their defense, and to ward off any temptation to acquire nuclear weapons of their own. The presence of American tactical nuclear systems like the B61 bombs would tie American forces to the fate of their hosts. The sharing of the weapons' delivery would give these countries a direct role in the nuclear enterprise without requiring them to actually build weapons.

Decades have passed, as has the Cold War, and with it, the Soviet forces in the Warsaw Pact countries, the original targets of the weapons. NATO nuclear sharing, though, persists. The weapons and the assigned aircraft are aging. The United States is currently updating the bombs and has designated the F-35 as the replacement aircraft for the F-16, the delivery aircraft for the NATO partners (except for Germany and Italy, which use the Tornado). Some are having second thoughts about hosting the weapons or replacing the aircraft. The Parliament in the Netherlands has expressed doubts, as have members of the governing coalition in Germany. Nuclear weapons aren't

the temptation they once were for Europeans. Turkey, which is the bridge to the Middle East, is silent on the subject.

Storing nuclear weapons close to trouble is a bad idea. Giving Turkey a shared finger on the nuclear trigger is rapidly losing its charm especially as Turkey flirts with Russia and has growing grievances with the United States. Let's end NATO's nuclear-sharing program, beginning with the nuclear weapons at Incirlik.

Harvey M. Sapolsky is Professor Emeritus at MIT and the former Director of the MIT Security Studies Program.

<https://www.defenseone.com/ideas/2019/05/get-us-nuclear-weapons-out-turkey/157101/?oref=d-river>

[Return to top](#)

## ABOUT THE USAF CSDS

The USAF Counterproliferation Center (CPC) was established in 1998 at the direction of the Chief of Staff of the Air Force. Located at Maxwell AFB, this Center capitalizes on the resident expertise of Air University — while extending its reach far beyond — and influences a wide audience of leaders and policy makers. A memorandum of agreement between the Air Staff's Director for Nuclear and Counterproliferation (then AF/XON) and Air War College commandant established the initial personnel and responsibilities of the Center. This included integrating counterproliferation awareness into the curriculum and ongoing research at the Air University; establishing an information repository to promote research on counterproliferation and nonproliferation issues; and directing research on the various topics associated with counterproliferation and nonproliferation.

In 2008, the Secretary of Defense's Task Force on Nuclear Weapons Management recommended "Air Force personnel connected to the nuclear mission be required to take a professional military education (PME) course on national, defense, and Air Force concepts for deterrence and defense." This led to the addition of three teaching positions to the CPC in 2011 to enhance nuclear PME efforts. At the same time, the Air Force Nuclear Weapons Center, in coordination with the AF/A10 and Air Force Global Strike Command, established a series of courses at Kirtland AFB to provide professional continuing education (PCE) through the careers of those Air Force personnel working in or supporting the nuclear enterprise. This mission was transferred to the CPC in 2012, broadening its mandate to providing education and research on not just countering WMD but also nuclear operations issues. In April 2016, the nuclear PCE courses were transferred from the Air War College to the U.S. Air Force Institute for Technology.

In February 2014, the Center's name was changed to the Center for Unconventional Weapons Studies (CUWS) to reflect its broad coverage of unconventional weapons issues, both offensive and defensive, across the six joint operating concepts (deterrence operations, cooperative security, major combat operations, irregular warfare, stability operations, and homeland security). The term "unconventional weapons," currently defined as nuclear, biological, and chemical weapons, also includes the improvised use of chemical, biological, and radiological hazards. In May 2018, the name changed again to the Center for Strategic Deterrence Studies (CSDS) in recognition of senior Air Force interest in focusing on this vital national security topic.

The Center's military insignia displays the symbols of nuclear, biological, and chemical hazards. The arrows above the hazards represent the four aspects of counterproliferation — counterforce, active defense, passive defense, and consequence management. The Latin inscription "Armis Bella Venenis Geri" stands for "weapons of war involving poisons."

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