



UNITED STATES AIR FORCE
CENTER FOR STRATEGIC
DETERRENCE STUDIES

NEWS AND ANALYSIS

Issue 1398
3 January 2020

Feature Report

“Rigid Structures, Evolving Threat: Preventing the Proliferation and Use of Chemical Weapons”. By Rebecca Hersman and Suzanne Claeys. Published by Center for Strategic & International Studies; Dec. 18, 2019

<https://www.csis.org/analysis/rigid-structures-evolving-threat-preventing-proliferation-and-use-chemical-weapons>

Chemical weapons are back. Since 2012, the growing number and types of CW uses have increasingly challenged the anti-CW regime. Furthermore, the shifting security environment has revealed emerging challenges to and increased pressure points on the system of restraint, which shapes nations’ behavior and encourages restraint through several different, often mutually reinforcing mechanisms: taboos, lack of benefit, norms, and deterrence.

This study examines the evolving and changing nature of chemical weapons and how the system of restraint must adapt to ensure that the proliferation and use of chemical weapons do not reemerge as endemic features of the global security landscape. The study provides a framework for structuring the problem, identifies gaps and challenges, and puts forward options for improving the global effort to prevent the proliferation and use of these weapons.

This report is made possible through the support of the United States Air Force Academy (USAFA) and the Center for Strategic and international Studies under agreement number FA 7000-18-1-0008.

TABLE OF CONTENTS

NUCLEAR WEAPONS

- [Huey Replacement Helo Named MH-139A 'Grey Wolf'](#) (Air Force Magazine)
The Grey Wolf is the Air Force's replacement for the venerable UH-1N Huey, and will patrol nuclear missile fields and fly VIP transport missions.
- [Pentagon Proposal Cuts an FFG\(X\) and an Attack Submarine from the Budget](#) (Defense News)
But part of the Navy's effort to get smaller is based on necessity: The service is on the hook for an enormous modernization bill for the Columbia-class ballistic missile submarine ...
- [Why 80? Defense Leaders Discuss The Need for Plutonium Pits](#) (Aiken Standard)
The pits would be produced in two states, South Carolina and New Mexico, the National Nuclear Security Administration and the U.S. Department of Defense together counseled.

US COUNTER-WMD

- [Key Lawmaker Calls for Halt to BioDetection 21 Program](#) (Global Biodefense)
BD21 depends on so-called trigger devices that use fluorescent light to identify potentially dangerous biological material in the air. Once the devices trigger a warning, officials would seek confirmation with handheld equipment.

US ARMS CONTROL

- [Russia Deploys First Hypersonic Avangard Ballistic Missiles](#) (UPI)
Russian Defense Minister Sergei Shoigu informed Russian President Vladimir Putin the first regiment of the nuclear-capable Avangard missiles had "assumed combat duty" as of Friday morning, state-run news agency Tass reported.
- [White House: Lots of 'Tools' to Respond to Potential North Korea Missile Test](#) (VOA)
North Korea had warned of a "Christmas gift" if the U.S. didn't meet an end of year deadline to soften its stance on nuclear talks that have been stalled since February.
- [Trump Escalates Pressure Campaign on Tehran with Appeal to Iranians](#) (The Hill)
The Trump administration's maximum pressure campaign against Iran's nuclear ambitions is evolving to include direct appeals to the Iranian people.

COMMENTARY

- [Put US Post-INF Missiles into Production](#) (Defense One)
The ballistic missile tested by the Air Force last week and the cruise missile launched by the Navy in August were deliberately flown into the 500-to-5,500-kilometer range proscribed by the 1987 agreement between the United States and the Soviet Union.
- [A Commitment to Never Use Nuclear Weapons First Will Not Make Us Safer](#) (The Hill)
This worrisome state of nuclear affairs is leading some, including policy thinkers in the three Western democracies armed with nuclear weapons, which are the United States, the United Kingdom, and France, to consider taking new steps to limit the risk of nuclear weapons use.
- [Progress, Peril, Hope: The Nuclear Decade in Review](#) (Defense One)
Globally, we have an escalating nuclear arms race. Each of the nine nuclear weapons states are building new weapons. Relatedly, we have a near-collapse of arms control structures.

NUCLEAR WEAPONS

Air Force Magazine (Arlington, Va.)

Huey Replacement Helo Named MH-139A ‘Grey Wolf’

By Brian W. Everstine

Dec. 19, 2019

Air Force Global Strike Command’s new helicopter officially has a name—the MH-139A Grey Wolf.

The command unveiled the designation during a Dec. 19 ceremony at Duke Field, Fla. This is Global Strike’s first aircraft acquisition, since its bombers were purchased before the organization stood up in 2009. Boeing offered the helicopter in a competition where a Sikorsky Black Hawk variant was seen as the one to beat.

The Grey Wolf is the Air Force’s replacement for the venerable UH-1N Huey, and will patrol nuclear missile fields and fly VIP transport missions. MH-139As are a variant of the civilian AW139, originally built by AgustaWestland, a Leonardo subsidiary. The helos have an externally mounted M240 machine gun, and offer faster speeds and greater ranges than the Vietnam War-era Huey.

Boeing, in a statement on Twitter, said that like live gray wolves, the MH-139A will be “deployed in packs to protect intercontinental ballistic missile bases.”

“Grey Wolf” reflects how #MH139 aircraft will be deployed in packs to protect intercontinental ballistic missile bases for the @USAirForce. pic.twitter.com/GbrqKjfj00

— Boeing Defense (@BoeingDefense) December 19, 2019

The service expects to spread the aircraft across Malmstrom AFB, Mont., F.E. Warren AFB, Wyo., and Minot AFB, N.D., which will each receive 11 for the nuclear security mission. Additional aircraft will head to JB Andrews, Md., and Yokota AB, Japan, for VIP transport. Some helicopters will also go to Fairchild AFB, Wash., for survival, evasion, resistance, and escape training. The helicopter’s schoolhouse is based at Kirtland AFB, N.M.

The naming ceremony came one day after Global Strike officially stood up a test detachment for the helicopter.

Detachment 7 at Duke Field is commanded by Lt. Col. Mary Clark, and will work with Air Force Materiel Command’s 413th Flight Test Squadron—the service’s only dedicated rotary test unit.

For now, the detachment will work out of temporary facilities at Duke before moving to Malmstrom. The detachment will have four helicopters, with the second arriving in January and the last two to follow in February.

The Air Force plans to buy up to 84 of the aircraft at a cost of \$2.4 billion.

<https://www.airforcemag.com/huey-replacement-named-mh-139a-grey-wolf/>

[Return to top](#)

Defense News (Washington, D.C.)

Pentagon Proposal Cuts an FFG(X) and an Attack Submarine from the Budget

By David B. Larter

Dec. 26, 2019

LANSDALE, Pa. — A small but potentially significant change in the Pentagon's five-year budget projection slows down the buying profile for the U.S. Navy's new frigate, which is expected to be awarded in 2020, according to a memo from the White House's Office of Management and Budget to the Department of Defense, and obtained by Defense News.

The Navy's 30-year shipbuilding plan submitted to Congress with the 2020 budget showed the Navy planned to buy one FFG(X) in 2020, then it had planned to buy two every year until 2030, when it would buy the last of the planned 20-ship program. That would mean the next Future Years Defense Program, or FYDP, in the 2021 budget would be for 10 FFG(X).

But the Dec. 16 memo from OMB, which responded to the Navy's submitted budget, shows the service planning to request just one FFG(X) each in 2021 and 2022. Then the buy jumps to two per year for 2023 and 2024, and increases to three in 2024, the last year of the FYDP.

The proposal also cuts a Virginia-class submarine out of the budget. The 30-year shipbuilding plan shows two attack submarines per year through the next decade, but the OMB memo shows the Navy requesting just one in 2021, before returning to the two-per-year profile for the remainder of the FYDP. The single fiscal 2021 Virginia-class submarine, which is planned as an expanded Virginia Payload Module Block V submarine, is listed at \$3.86 billion.

The reason for the change is not addressed in the memo, and a Navy spokesman declined to comment on the substance of the document, citing a Navy policy not to comment on budget matters before they are finalized and sent to Congress.

While pushing off a single FFG(X) and Virginia-class sub to later years isn't much cause for alarm, the Pentagon proposal does come packaged with a dramatic series of other cuts to both current Navy force structure and planned ship construction.

The surface Navy and experts see the FFG(X) as a vital program to put credible weapons systems and sensors on a small, less expensive platform that the Navy can buy more of than the current fleet of destroyers, which cost nearly \$2 billion per hull. The memo shows the unit cost of an FFG(X) at \$955 million per hull. More ships to act as nodes in a spread-out network of ships and sensors is key to making the Navy's distributed maritime operations concept work.

The FFG(X) is also key to the drive toward a 355-ship Navy, which the Trump administration considers a priority. Indeed, the memo from OMB directs the Pentagon to submit a "resource informed" plan to get to 355 ships, which is current national policy. The memo says the Navy should come back with a plan to include unmanned vessels, such as its planned large unmanned surface vessel, in the ship count.

Still, the FFG(X) and Virginia programs fared better than others. The same proposal cut five of the planned 12 Flight III Arleigh Burke-class destroyers out of the budget, and essentially directs the Navy to cancel its Common Hull Auxiliary Multi-Mission Platform program. The proposal also accelerated the decommissioning of three dock landing ships and four cruisers, as well as the first four littoral combat ships.

A Trump administration source pointed the finger at the Office of the Secretary of Defense for the cuts, saying the Navy and OMB are on board for 355 ships.

Getting smaller

The Navy sees the push to get smaller, enabled by smaller platforms such as LUSV and FFG(X), as vital to the drive to grow the fleet and take on competitors such as China and Russia.

In that light, the proposal to deemphasize the Flight III DDG in the FYDP is less surprising. It's a move the Navy began signaling early last year.

"Today, I have a requirement for 104 large surface combatants in the force structure assessment; I have 52 small surface combatants," Adm. Ronald Boxall said when he was the head of surface warfare for the Navy. "That's a little upside down. Should I push out here and have more small platforms? I think the future fleet architecture study has intimated 'yes,' and our war gaming shows there is value in that."

The paradigm shift is moving the fleet away from platforms like the Arleigh Burke-class destroyers — enormous, tightly packed ships bristling with capabilities, weapons and sensors, but enormously expensive to build, maintain and upgrade.

"It's a shift in mindset that says, instead of putting as much stuff on the ship for as much money as I have, you start thinking in a different way," Boxall said in an interview with Defense News in January. "You start saying: 'How small can my platform be to get everything I need to be on it?'"

"We want everything to be only as big as it needs to be. You make it smaller and more distributable, given all dollars being about equal. And when I look at the force, I think: 'Where can we use unmanned so that I can push it to a smaller platform?'"

'It's unavoidable'

But part of the Navy's effort to get smaller is based on necessity: The service is on the hook for an enormous modernization bill for the Columbia-class ballistic missile submarine, something Chief of Naval Operations Adm. Michael Gilday said at a recent forum will remain the Navy's top priority no matter the impact on the shipbuilding budget.

"The Navy's first acquisition priority is recapitalizing our Strategic Nuclear Deterrent — Electric Boat is helping us do just that," Gilday said. "Together, we will continue to drive affordability, technology development, and integration efforts to support Columbia's fleet introduction on time or earlier."

The service has been driving toward fielding the Columbia's lead ship by 2031, in time for its first scheduled deployment. Construction of the first boat will begin in October 2020, though the Navy has been working on components and design for years.

In comments at a recent forum, Gilday said that everything the Navy is doing to reinvent its force structure around a more distributed concept of operations — fighting in a spread-out manner instead of aggregated around an aircraft carrier — would have to be worked around the Columbia class, which will take up a major part of the service's shipbuilding account in the years to come.

"It's unavoidable," Gilday said, referring to the cost of Columbia. "If you go back to the '80s when we were building Ohio, it was about 35 percent of the shipbuilding budget. Columbia will be about 38-40 percent of the shipbuilding budget."

"The seaborne leg of the triad is absolutely critical. By the time we get the Columbia into the water, the Ohio class is going to be about 40 years old. And, so, we have to replace that strategic leg, and it has to come out of our budget right now. Those are the facts."

<https://www.defensenews.com/naval/2019/12/25/pentagon-proposal-cuts-an-ffgx-and-an-attack-submarine-out-of-the-budget/>

[Return to top](#)

Aiken Standard (Aiken, S.C.)

Why 80? Defense Leaders Discuss The Need for Plutonium Pits

By Colin Demarest

Dec. 28, 2019

In May 2018, a joint recommendation was made to rekindle the production of plutonium pits: cores or triggers at the heart of modern nuclear weapons.

The pits would be produced in two states, South Carolina and New Mexico, the National Nuclear Security Administration and the U.S. Department of Defense together counseled. It's been pitched as a tandem, resilient approach, one that would offer both flexibility and results.

By 2030, at least 50 pits per year would be made at the Savannah River Site. The Mixed Oxide Fuel Fabrication Facility – a multibillion-dollar, never-completed nuclear fuel plant at SRS – would be repurposed and renovated for that very reason. And in New Mexico, at Los Alamos National Lab, a plutonium hub near Albuquerque and Santa Fe, 30 pits per year would be pumped out by the same decade-away deadline.

At the Nuclear Modernization Seminar in McLean, Virginia, this month, Charles Verdon, a top weapons expert at the NNSA, spoke to the Aiken Standard about the 80-pits-per-year requirement, which is laid out in the 2018 Nuclear Posture Review, a leading Pentagon policy document.

Verdon, who leads a team responsible for maintaining the nation's nuclear weapons, said this when asked why 80 pits were needed and why people should subscribe to the thought process.

"So, again, when we tried to estimate the future, which you always have to put some uncertainty in there, but when we tried to look at the future, one of our major goals – both for ourselves and the military – is to improve the safety and the security of the warheads.

Some of the existing pits we have don't lend themselves to that. They were designed for a different time, a different era. They had a different mission. So they aren't necessarily optimal. They limit what safety and security improvements we can put into the future stockpile.

The other, as I said, is this issue of aging, that since plutonium is radioactive, it is changing in time. There is concern that over time, they will change in a way that could be adverse. Now, that is a lot of work and scientific research looking into that, but it could take decades to resolve that, and the problem is: If you got out there decades, and you find out it's not optimal, you're left with what do you do then?

So that's why we're saying it's a prudent approach, to identify the number 'no fewer than 80.' Because our analysis shows us that that gives us this methodical way of slowly over time replacing the age or taking the older pits out of the stockpile and replacing them with new."

Peter Fanta, the deputy assistant secretary of defense for nuclear matters, put it more succinctly: "Want to know where 80 pits per year came from? It's math. Alright? It's really simple math. Divide 80 per year by the number of active warheads we have – last time it was unclassified it was just under 4,000 – and you get a timeframe."

Nuclear watchers, environmentalists, arms control experts and critics, more generally, are less sanguine. They have collectively questioned the need for more pits, let alone the recommended volume: 80 per year.

"They keep coming up with this number, 80, and I don't know where they get this from," Tom Clements, the director of Savannah River Site Watch, has said. "They haven't justified it."

Kingston Reif, the director for disarmament and threat reduction policy at Arms Control Association, has described the National Nuclear Security Administration's pit production goals as "unnecessary and unexecutable."

"A report released earlier this year by the Institute for Defense Analyses found 'no historical precedent' for creating an 80-pit-per-year capability by 2030," Reif said in an exchange with the Aiken Standard. "In other words, the goal is a fantasy."

The last place pits were produced en masse – the Rocky Flats Plant in Colorado – was raided by the FBI, and a slate of charges followed.

The NNSA is part of the U.S. Department of Energy. The semiautonomous agency already operates at the Savannah River Site.

https://www.aikenstandard.com/news/why-defense-leaders-discuss-the-need-for-plutonium-pits/article_45255e94-28a7-11ea-b9d1-bf80a2aee00d.html

[Return to top](#)

US COUNTER-WMD

Global Biodefense (Seattle, Wash.)

Key Lawmaker Calls for Halt to BioDetection 21 Program

By Global Biodefense

Dec. 16, 2019

Citing "serious concerns" about unproven technology rushed into use by the Trump administration to detect biological attacks, the chairwoman of the House Science and Technology Committee Rep. Eddie Bernice Johnson (D-Texas) is calling for the system to be shut down.

Rep. Johnson (D-Texas) said Wednesday in a letter to acting Assistant Homeland Security Secretary Gary C. Rasicot that the BioDetection 21 system, or BD21, "should not move forward until fundamental concerns about its technological viability and conceptual framework are resolved."

In her letter, Johnson cited a Los Angeles Times investigative report published in February that revealed the new technology's deficiencies. For instance, the tests found that the technology to be relied on by BD21 detected viral material simulating smallpox or other deadly viruses that could be weaponized in just eight of 168 attempts, a success rate of less than 5%.

BD21 depends on so-called trigger devices that use fluorescent light to identify potentially dangerous biological material in the air. Once the devices trigger a warning, officials would seek confirmation with handheld equipment.

Stephen A. Morse, a retired federal microbiologist who reviewed various bio-detection technologies for the government during his 32-year career at the Centers for Disease Control and Prevention, said that the test failures and lack of demonstrated effectiveness should doom BD21. Homeland Security has estimated that the new system would cost about \$80 million a year.

"It's a big waste of money," Morse said in an interview from Atlanta. "They [members of Congress] should cut it off right now. I don't think it's going to be a useful replacement for BioWatch."

<https://globalbiodefense.com/headlines/key-lawmaker-calls-for-halt-to-biodetection-21-program/>

[Return to top](#)

US ARMS CONTROL

UPI (Washington, D.C.)

Russia Deploys First Hypersonic Avangard Ballistic Missiles

By Don Jacobson

Dec. 27, 2019

Dec. 27 (UPI) -- Russia's first hypersonic intercontinental ballistic missiles, described by Moscow as invulnerable to U.S. defenses, have been put into service, officials said Friday.

Russian Defense Minister Sergei Shoigu informed Russian President Vladimir Putin the first regiment of the nuclear-capable Avangard missiles had "assumed combat duty" as of Friday morning, state-run news agency Tass reported.

Gen. Sergei Karakayev, chief of Russia's Strategic Missile Forces, said the missiles had been deployed in central Russia's Orenburg region, located in the Ural Mountains about 930 miles southeast of Moscow.

The Russian military demonstrated the Avangard last month for a team of inspectors from the United States as part of a bilateral arms control treaty. The system was announced by Putin last year.

Moscow says the hypersonic weapon is highly mobile and can outsmart U.S. missile defenses, flying at 20 times the speed of sound.

Russian Foreign Minister Sergei Lavrov said last week Moscow is willing to include the Avangard and the heavy Sarmat missile in negotiations with the United States to extend the New START arms treaty before it expires in 2021.

The pact was last extended in 2010 by then-U.S. President Barack Obama and Russian President Dmitry Medvedev. The accord places a cap on 1,500 developed weapons, 700 deployed missiles and 800 deployed and non-deployed launchers.

https://www.upi.com/Top_News/World-News/2019/12/27/Russia-deploys-first-hypersonic-Avangard-ballistic-missiles/5361577457556/

[Return to top](#)

VOA (Washington, D.C.)

White House: Lots of 'Tools' to Respond to Potential North Korea Missile Test

By VOA News

Dec. 29, 2019

White House national security adviser Robert O'Brien said Sunday he did not want to speculate about North Korea and its threat of "Christmas gift," but added the U.S. would be "very disappointed" if Pyongyang tested a long-range or nuclear missile.

During an interview with ABC's "This Week," O'Brien said the country would take appropriate action as a leading military and economic power if North Korea went ahead with such a test.

O'Brien added Washington has many "tools in its tool kit" to respond.

"We'll reserve judgment but the United States will take action as we do in these situations," he said. "If Kim Jong Un takes that approach we'll be extraordinarily disappointed and we'll demonstrate that disappointment."

North Korea had warned of a "Christmas gift" if the U.S. didn't meet an end of year deadline to soften its stance on nuclear talks that have been stalled since February

U.S. officials have been on alert for a potential long-range missile test since the North Korean warning.

Though Christmas holiday has passed and North Korea did not deliver the so-called "Christmas gift" to the United States, U.S.-North Korea tensions appear far from resolved.

North Korea's nuclear program was the "most difficult challenge in the world" when President Donald Trump took office in January 2017, O'Brien told ABC News.

He also suggested that Trump's strategy of "face-to-face" diplomacy may have forced North Korean leader Kim Jong Un to reconsider.

Talks about North Korea's denuclearization have been largely deadlocked since a second summit between Trump and North Korean leader Kim Jong Un in Hanoi collapsed at the start of this year.

<https://www.voanews.com/east-asia-pacific/white-house-lots-tools-respond-potential-north-korea-missile-test>

[Return to top](#)

The Hill (Washington, D.C.)

Trump Escalates Pressure Campaign on Tehran with Appeal to Iranians

By Laura Kelly

Dec. 29, 2019

The Trump administration's maximum pressure campaign against Iran's nuclear ambitions is evolving to include direct appeals to the Iranian people.

But critics warn that the effort, in response to Tehran's brutal crackdown on popular protests, will only encourage Tehran to strike out more aggressively, both against its own people and in the region. They argue that, in turn, will make the U.S. and its allies the main targets of military attacks.

The administration's move comes as Tehran prepares for renewed protests as Iranians commemorate 40 days of mourning for those killed in demonstrations that took place in mid-November.

At least 1,500 Iranians are believed to have been killed over two weeks of protests, according to a report by Reuters citing Iranian officials, with the newest death toll significantly higher than previous estimates.

In November, the State Department responded to the uprisings with an unusual request: appealing directly to the Iranian people that they send video and photographic evidence of human rights abuses by security officials.

The State Department said it has received more than 36,000 communications from Iranians.

The request marked an escalation of the administration's campaign against Iran. Previously, the U.S. only advocated support for the Iranian people. Now, it is imposing sanctions on alleged human rights abusers — outside the realm of its sanctions targeting terrorist financing.

Sanctions have since been imposed on Iran's minister for technology and communications, in response to reports of internet blackouts to quell protests, in addition to judges who jailed human rights activists.

"Washington cannot afford to have a pressure policy against the Islamic Republic that does not take into account the struggle of the Iranian people against the same system," said Behnam Ben Taleblu, a senior fellow with the Foundation for Defense of Democracies, a Washington-based think tank where he focuses on Iranian security and political issues.

"I would expect more human rights penalties against Tehran in 2020. The regime has signaled that it is prepared to be more lethal, using weapons and tactics of war against its own people."

The protests were initially triggered by a sharp rise in fuel prices, Tehran's attempt to make up for a shortfall in revenue stemming from punishing U.S. sanctions and the government's mismanagement of funds, including prioritizing funding for proxy forces like Hamas, Hezbollah and armed Shia groups in Iraq and Syria.

"After our sanctions come in force, it will be battling to keep its economy alive," Secretary of State Mike Pompeo said last year following the U.S. withdrawal from the 2015 nuclear deal. "Iran will be forced to make a choice: either fight to keep its economy off life support at home or keep squandering precious wealth on fights abroad. It will not have the resources to do both."

The administration has rejected the idea that its recent sanctions campaign is aimed at regime change in Iran and says it remains open to negotiations to relieve sanctions if Tehran renounces support for terrorism and gives up its nuclear ambitions.

But Tehran has yet to renounce its support for its proxy forces and instead has lashed out in targeted military attacks against U.S. forces and American allies, including provocations on oil tankers in the Gulf, the downing of a U.S. drone, an attack on Saudi Arabian oil facilities and rocket attacks on U.S. service members stationed at Iraqi military bases.

"It's clear from the Iranian side that what they've been able to do is produce more diplomacy to create some new opportunities, to begin to, apparently persuade some of their adversaries in the Gulf — the Emiratis and the Saudis — in particular, to begin to back off a little bit of their hostility," Suzanne Maloney, deputy director of the Foreign Policy Program at the Brookings Institution, said during a panel discussion this month on the unrest in Iran and options for a U.S. and international response.

Maloney said the Iranians are “emboldened” by a lack of a military retaliation by President Trump. In June, the president tweeted that he called off a strike on Iran “10 minutes” before it was set to take place, in response to the downing of U.S. drone.

“All of this leads to the presumption that we will see more attacks from Iran,” Maloney said. “They may be more of the same attacks on facilities and installations that are of economic importance both to the Gulf states as well as to the broader global economy. But they may look to strike elsewhere.”

“They have allies and proxies across the region and we have to be prepared for the next strike because it will be coming,” she added.

The administration’s next fight against Iran is pushing for the United Nations to renew provisions of the nuclear deal that are expiring in October, including an arms embargo and travel bans on Revolutionary Guard Corps members including leader of the Quds Force Qassem Soleimani.

Yet there are signs a window of diplomacy could open up through Japan.

On Monday, Iranian President Hassan Rouhani met with Japanese Prime Minister Shinzo Abe and appealed for economic support and lifting of sanctions through the 2015 nuclear deal, the Japan Times reported. Rouhani added that a meeting with U.S. officials could take place if “they can implement past commitments and prove their goodwill.”

During the holiday break, Pompeo, Defense Secretary Mark Esper and Joint Chiefs of Staff Chairman Mark Milley made a surprise visit at Mar-a-Lago where they said they briefed Trump following U.S. strikes on Iranian-backed forces in Iraq and Syria.

<https://thehill.com/policy/international/476058-trump-escalates-pressure-campaign-on-tehran-with-appeal-to-iranians>

[Return to top](#)

COMMENTARY

Defense One (Washington, D.C.)

Put US Post-INF Missiles into Production

By Rebeccah L. Heinrichs and Tim Morrison

Dec. 20, 2019

Recent tests of U.S. missiles once banned by the Intermediate-range Nuclear Forces Treaty are a welcome step. They provide an essential response to Russia’s violations of the now-defunct INF. They help regain an advantage ceded to the People’s Republic of China, which was never constrained by the pact. And they better position the United States to seek new international agreements on arms.

The ballistic missile tested by the Air Force last week and the cruise missile launched by the Navy in August were deliberately flown into the 500-to-5,500-kilometer range proscribed by the 1987 agreement between the United States and the Soviet Union. Russia, of course, did not wait until the treaty was dissolved before testing its own INF-banned missile, the 9M729, around 2010. Beginning around May 2013, and through August 2019, the Obama and Trump administrations sought to convince Russia to change its conduct and comply with the treaty. Russia would not. And so, with

the clear and unambiguous support of NATO and other allies, President Trump withdrew the United States from the treaty.

The significance of this decision for the strategic competition with China cannot be overstated. Because China was never a party to the treaty, and steadfastly refused to be brought into the treaty, it was free to deploy intermediate-range ballistic and cruise missiles.

And it took advantage of that freedom, deploying thousands of such weapons. As then-U.S. Navy Adm. “Harry” Harris answered a question from Sen. Tom Cotton, R-Arkansas, “I think that we are at a disadvantage with regard to China today, in the sense that China has ground-based ballistic missiles that threaten our basing in the western Pacific and our ships. They have ground-based ballistic anti-ship missiles. And we have nothing — we have no ground-based capability that can threaten China.”

Trump’s withdrawal from the treaty presents the United States the opportunity to regain the advantage. Just as the PLA Rocket force holds U.S. bases, assets, and allies at risk of attack, conventional ground-based theater-range missiles owned and operated by the United States or Japan, or a combination of both, would hold enemy targets at risk. This would help U.S. forces, mainly from the sea and air, operate in areas increasingly covered by PLA missiles.

Now with two successful tests under its belt, what should the Defense Department do next?

First, Defense Secretary Mark Esper should immediately move these systems from the Strategic Capabilities Office, or SCO, which funded them, to the military services for acquisition, deployment, and troop training. It was gratifying to see that the Secretary is already moving in this direction. “We are supporting those activities, with money and technology,” Esper told lawmakers last week. We should watch to ensure the SCO and the Army and Marine Corps sign the needed paperwork to effectuate the transfer as soon as possible.

Second, the administration should immediately reach out to allies with offers to work with them to co-finance and co-develop intermediate range ground-launched ballistic and cruise missiles. When allies and partners invest in their own defense, especially in U.S. capabilities, it shares the burden for that defense, multiplies the defensive forces that can be brought to bear to challenge adversaries such as the Chinese Communist Party, and promotes interoperability and integration of Western-aligned military forces. For example, Japan already co-develops missile defense systems with the United States and has, over Beijing’s complaints, opted to buy its own Aegis Ashore missile defense system.

What’s more, offering co-development and co-finance opportunities also deals with one of the most oft-repeated red herrings in the debate over what to do about the Russia’s INF violation: the contention that allies and partners won’t host U.S. intermediate-range missiles. (In the recently passed 2020 National Defense Authorization Act, the House approved a provision that bars funding for intermediate-range missiles until the Defense Department details where such missiles would be based. If a similar provision appears in next year’s NDAA, it would put the Defense Department in the absurd position of negotiating basing agreements with allies and partners to host military capabilities that they don’t even own yet.) Co-developing new missiles would also present an opportunity to sidestep basing negotiations because allies could simply deploy their own weapons. The result: stronger allies, more burden sharing, more allied defensive force, and less political heartburn in the politics of our allies and partners around the world.

Lastly, history reminds us that the Soviet Union was driven to negotiate INF because the Reagan administration, working with NATO allies, deployed nuclear-armed missiles in Europe. Though the weapons we are discussing now are strictly non-nuclear, the steps we outlined above could help the

U.S. officials persuade Moscow and Beijing to work towards trilateral arms control. Increasing the operational abilities of U.S. and Japanese forces, for example, can only encourage Beijing to talk.

The Trump administration has an opportunity to change the military balance in East Asia, and elsewhere. These first initial steps by the Defense Department should be applauded, and immediately followed up with the programmatic and budgetary decisions that will offer opportunities for allies and partners to co-develop and co-finance a new, and cost-imposing, capability.

Rebecca Heinrichs is a senior fellow at Hudson Institute, where she provides research and commentary on a range of national security issues and specializes in missile defense and nuclear deterrence. FULL BIO

Tim Morrison was most recently the senior arms control official at the National Security Council. FULL BIO

<https://www.defenseone.com/ideas/2019/12/put-post-inf-missiles-production/162032/?oref=d-river>

[Return to top](#)

The Hill (Washington, D.C.)

A Commitment to Never Use Nuclear Weapons First Will Not Make Us Safer

By Iain King

Dec. 26, 2019

Nuclear threats did not end with the Cold War, and they could be getting even more dangerous in the modern era today. North Korea has illegally developed an atomic and ballistic missile program, Russia is brandishing a new range of nuclear delivery systems, and China continues to build up its strategic arsenal. Meanwhile, measures which have helped to keep the world safe for years, such as the half century old Nuclear Nonproliferation Treaty and other arms control agreements, are facing several challenges.

This worrisome state of nuclear affairs is leading some, including policy thinkers in the three Western democracies armed with nuclear weapons, which are the United States, the United Kingdom, and France, to consider taking new steps to limit the risk of nuclear weapons use. However, some of these supposed precautions, for instance the doctrine of “No First Use,” could actually make the world even less secure. “No First Use” is a public commitment to never to use nuclear weapons, except in response to their use by another power. It has been the declared stance of China and India, although recent remarks by the Indian government raise complications. “No First Use” was also briefly adopted by the Soviet Union in the 1980s.

The case for “No First Use” seems simple. If all states armed with nuclear weapons agree to never use them first then, in theory, they would never be used at all. It may develop the commitments by the United States, the United Kingdom, France, Russia, and China to use nuclear weapons only defensively. “No First Use” could even offer a new route toward a world without nuclear weapons, to which all nuclear powers are committed.

However, upon closer examination, these benefits are illusory. “No First Use” is almost impossible to verify in peacetime. In a crisis situation, few would trust any adversarial nuclear powers to keep their “No First Use” pledge. Instead, they would expect them to qualify their commitments to gain leverage because interests, not stated commitments, will remain a much more trustworthy guide to

their behavior. Finally, how could a “No First Use” policy deter the use of other weapons of mass destruction? It may embolden adversaries to attack by increasing the odds of success.

The last point here is most notable, particularly for the United Kingdom and France, which are democracies with limited conventional forces and nuclear arsenals kept at a “strict sufficiency” level. If massed forces were threatening the vital interests of the United Kingdom or France, then they might have to consider signaling a possible nuclear response. For both countries, “No First Use” is neither practical nor credible. Moreover, even if the United States adopted the posture, the United Kingdom and France would have to demur, creating a possibly damaging split in the alliance.

Further, for the United States to adopt a “No First Use” stance would call into question their extended deterrence guarantees and other security commitments. This could tempt some adversaries to attack United States allies without fearing an escalation, therefore transforming a tactical win against some of those same allies into a strategic victory against Western democracies. It could even invite doubt in the minds of our adversaries whether the “one for all, all for one” Article Five commitment at the heart of the North Atlantic Treaty Organization was still valid. To offset such a risk, significant conventional reinforcements would be required, which would have a large impact on resources and could also be destabilizing.

In extremes, allies may feel it necessary to develop nuclear programs of their own. Far from limiting nuclear dangers, “No First Use” could actually spur proliferation. Because of these real dangers, when the North Atlantic Treaty Organization considered “No First Use” in 1999, it had rejected the policy decisively. President Obama, who had won the Nobel Peace Prize in 2009, offered a credible path toward a world free from nuclear weapons, declaring his firm conclusion that “No First Use” was not the way to go.

There are far more promising ways to make the world safer from nuclear threats. The United States can reaffirm that nuclear weapons are purely defensive and designed only to preserve vital national interests. Officials can intensify the dialogue on doctrine among the leading nuclear powers to minimize the risks of any misunderstanding. Preserving existing arms control regimes and promoting new initiatives should also be priorities.

These steps might not be easy to take, but they would increase stability, while “No First Use” could undermine the function of nuclear weapons as means of deterrence. The challenges in the modern era posed by nuclear weapons and proliferation need to be contained, and progress on nuclear arms control has become as urgent as ever. But for the United States to conclude that it should adopt a “No First Use” policy would be a strategic mistake, and would invite greater nuclear dangers on itself and its allies.

Iain King is a visiting fellow with the Center for Strategic and International Studies and was defense counselor in the British Embassy in Washington.

<https://thehill.com/opinion/national-security/475965-a-commitment-to-never-use-nuclear-weapons-first-will-not-make-us-safer>

[Return to top](#)

Defense One (Washington, D.C.)

Progress, Peril, Hope: The Nuclear Decade in Review

By Joe Cirincione and Michelle Dover

Dec. 30, 2019

Never take progress for granted. That is the big lesson from the past ten years of dealing with nuclear threats. The decade began with great hope for a transformational U.S. nuclear policy and increased global cooperation. It ended with nuclear risks resurgent across the board.

At the beginning of 2010, one of us was writing another book on nuclear policy, the other was finishing senior year in college. But we end this nuclear decade in the same place: deeply worried about multiple nuclear dangers and the failure of U.S. nuclear policy.

There is some good news. We end the decade better off than we began by several measures. In 2010, there were 22,400 nuclear weapons on the planet. Today, there are fewer than 14,000, a 40-percent reduction. For the first time in the Atomic Age, a decade passed without a new nation joining the nuclear club. (North Korea became the ninth nuclear-armed state in 2006.) Moreover, there was no nuclear terrorist attack, not even a dirty bomb—though that was the top threat cited in the U.S. National Security Strategy of 2010.

These gains were fostered by the policies that guided U.S. strategy for most of the decade. We simultaneously reduced nuclear arsenals, prevented new nuclear states from emerging, and secured nuclear materials as we fought the terrorist networks that sought them. This effective combination of “reduce, prevent, secure” created the conditions for states to shrink existing stockpiles, convinced others not to take the nuclear road, and allowed all to cooperate to block terrorists and outlier states from getting their hands on materials for the cores of bombs.

The bad news is that the decade’s progress has stalled. The policies that made it possible have been discarded over the last three years. President Donald Trump inherited substantial nuclear threats. But his administration has made them worse.

Globally, we have an escalating nuclear arms race. Each of the nine nuclear weapons states are building new weapons. Relatedly, we have a near-collapse of arms control structures. Built over years by Republicans and Democrats, they restrained this race and prevented the worst from happening.

Regional threats have intensified, also. The deal that reversed, froze, and secured the Iranian nuclear program is being destroyed—not by Iran, but by the United States. With North Korea, despite promising diplomatic openings, the Trump administration “has yet to develop a workable diplomatic process to structure real, serious and sustainable negotiations,” as a group of senators led by Chuck Schumer recently wrote. The arms race in South Asia now combines with increased instability, and—in the case of India—a dangerous Hindu nationalism that threatens a regional nuclear war with global, catastrophic consequences.

Finally, as one of us recently noted, Donald Trump presents a unique nuclear danger: an unstable individual with the ability to launch a nuclear war whenever he wants, for whatever reason he wants.

It would be easy to blame the current administration for all of these problems. But that would overlook the failures of the previous administration. Obama officials thought they had more time than they did. They believed that half steps would lead to full solutions. They thought that they needed to protect their right flank by continuing status quo policies and appointing supporters of the existing nuclear arsenal to key policy positions.

President Barack Obama had the best of intentions but, as the character played by Louis Gossett Jr. says about Dr. Manhattan at the conclusion of HBO's brilliant *Watchmen* series, "He was a good man, but considering what he could do, he could've done more."

There is still reason for hope. Nuclear weapons may seem like an unchangeable reality in the world, but the world itself is changing around them.

For one thing, the "nuclear have-nots" are demanding a say in their destiny. Fifty years ago, these nations pledged to never acquire nuclear weapons in a bargain enshrined in the Nuclear Non-Proliferation Treaty. In return, the "nuclear haves" pledged to end the nuclear arms race and move towards complete disarmament. For five decades, the former deferred to the whims of the latter.

No longer. With the help of the International Campaign to Abolish Nuclear Weapons and other groups, the have-nots organized a series of conferences on the humanitarian consequences of nuclear weapons in 2013 and 2014, then passed a legally binding treaty through the United Nations that comprehensively prohibits nuclear weapons. The treaty will likely come into force by 2021, creating a new global norm that puts pressure on even those states who remain outside the pact.

Governments are not alone in shaking up the traditional hierarchies. Compared to 10 years ago, the nuclear policy community looks starkly different. The field is younger, more female, more racially diverse, though not nearly enough. This trend is typified by the likes of ICAN abroad and *Beyond the Bomb* domestically.

In all these cases, people are insisting that nuclear decisions, which affect us all, be made by us all.

These trends are positive, but can they overcome the destruction of the arms control regime, the expansion of nuclear stockpiles, and the growing regional threats?

The last ten years show that when policy falters, disasters loom. The history of the next nuclear decade begins now. It will be a race, as former Sen. Sam Nunn says, between cooperation and catastrophe. We hope to see you at the finish line.

Joe Cirincione is president of Ploughshares Fund and a co-host of "Press the Button," a national security podcast. In 2004, he co-wrote "WMD in Iraq: Evidence and Implications," the definitive independent analysis of how U.S. officials systematically misrepresented the threat of Iraq's WMD. FULL BIO

Michelle Dover is director of programs at Ploughshares Fund and a co-host of "Press the Button," a national security podcast. FULL BIO

<https://www.defenseone.com/ideas/2019/12/nuclear-risks-are-rising-after-nearly-decade-decline/162137/?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."

DISCLAIMER: Opinions, conclusions, and recommendations expressed or implied within are solely those of the authors and do not necessarily represent the views of the Air University, the United States Air Force, the Department of Defense, or any other US government agency.