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Feature Report

“A Strategy for Deterring Russian Nuclear De-Escalation Strikes”. Written by Matthew Kroenig; published by the Atlantic Council; April 24, 2018

http://www.atlanticcouncil.org/images/Nuclear_Strategy_WEB.pdf

In recent years, Western analysts have become aware of the possibility that Russia may conduct limited nuclear “de-escalation” strikes in a bid to escalate its way out of failed conventional aggression. The United States and its NATO allies, however, have not developed a clear strategy for deterring limited Russian nuclear strikes. Specifically, in the event of a limited Russian nuclear attack, how would the United States and its NATO allies respond?

As part of this conversation, in his latest report Dr. Matthew Kroenig addresses the challenge of Russian nuclear de-escalatory strikes and provides recommendations for a clearer US and NATO nuclear deterrence strategy toward Russia.

TABLE OF CONTENTS

NUCLEAR WEAPONS

- [Boeing to Start LRSO, B-52 Integration Studies Next Year \(Inside Defense\)](#)
Boeing will receive a contract worth up to \$250 million to study how to make the Long-Range Standoff Weapon safe to fly on the B-52 bomber.
- [Democrats Fight Pentagon's Push for Battlefield Nukes \(Military Times\)](#)
House Democrats are fighting on multiple fronts to block the Trump administration from developing a new tactical nuclear weapon, and the debate threatens next to spill onto the House floor.
- [New ICBM in 2020, Hypersonic Glider in 2019: Putin Outlines Nuclear Deployment Plans \(RT\)](#)
The Russian military is expected to deploy the Sarmat ICBM in 2020 and the Avangard hypersonic glider warhead in 2019, according to Vladimir Putin.
- [Russia Hints at a Nuclear Armed Drone Submarine for 2027 \(C4ISRNET\)](#)
Poseidon is an unobvious name for a robot. So when a country decides to name a category of vessel after the god of the ocean, it suggests a gravitas, a significance that no lesser name would convey.

US COUNTER-WMD

- [The U.S. Army Is Turning to Robot Soldiers \(Bloomberg\)](#)
Right now, they're used for reconnaissance and explosives. Soon, they'll be on the battlefield alongside troops. Then comes the hard part.
- [The Sensors That Could Sniff Out Chemical Weapons \(C4ISRNET\)](#)
Researchers in the Material Science and Technology Division are developing atomically-thin semiconductors to serve as sensors in emerging detection systems.
- [Industry Asked for New Hawaii Radar Proposals \(Inside Defense\)](#)
The Missile Defense Agency has launched a potential \$1 billion competition for new radars being developed to increase the effectiveness of the Ground-based Midcourse Defense segment of the Ballistic Missile Defense System against long-range North Korean rockets.
- [Missile-tracking Satellites are Part of the Plan to Foil Russia's Hypersonic Weapons \(SpaceNews\)](#)
Russia reportedly is testing hypersonic ballistic glider weapons that currently would be undetectable after the initial boost phase of their flight.

US ARMS CONTROL

- [In Defense of the Low Yield Nuclear Trident Missile \(Real Clear Defense\)](#)
As strategist Colin Gray (who according to Secretary of Defense Mattis is “the most near-faultless strategist alive today”) has expounded upon at length, the amount and sophistication of a state’s arms are properly categorized as the effect, not the primary cause of war.
- [To Experts, North Korea Dismantling Nuclear Site Is Like Destroying Evidence \(CNN\)](#)
No weapons inspectors or individuals with any kind of expertise were expected to attend the event, which North Korea has said would “ensure transparency of discontinuance of the nuclear test.”
- [Nuclear Weapons Treaty Exit on Table as Iran Gauges EU Action on Deal \(Al-Monitor\)](#)
While having granted Europe a chance to save the Joint Comprehensive Plan of Action (JCPOA), Iran is in parallel mulling an exit from the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in response to the US withdrawal from the JCPOA.
- [U.S. Issues Steep List of Demands for Nuclear Treaty with Iran \(Chicago Tribune\)](#)
The United States on Monday issued a steep list of demands to be included in a nuclear treaty with Iran to replace the deal scuttled by President Donald Trump and threatened “the strongest sanctions in history” if Iran doesn’t change course.

COMMENTARY

- [Pompeo’s Iran Plan: Tell Them to Give Up \(The New York Times\)](#)
Since President Trump renounced America’s commitments under the 2015 Iran nuclear deal this month, the question has been what comes next.
- [In Taking on Iran and North Korea, One Size Does Not Fit All \(The Hill\)](#)
A regime-change policy for rogue Tehran could serve the national interest because Iran has a viable coalition of dissidents; but the same policy might be a disaster, if it were applied to Pyongyang, which lacks a self-sustaining opposition.
- [America’s New Stealth Bomber has a Stealthy Price Tag \(Defense One\)](#)
Revealing how much the Air Force’s B-21 is costing won’t help America’s enemies — but will make oversight possible.
- [Is It Time for Israel to Reveal the Truth about Its Chemical Weapons? \(The Conversation\)](#)
The multilateral attack on Bashar al-Assad’s chemical weapons facilities in Syria after a lethal gas attack in East Ghouta is already fading from memory, but the question it poses remains: how can the spread of chemical weapons across the Middle East be controlled?
- [What the North Koreans Told Me about Their Plans \(The Atlantic\)](#)
What exactly do the North Koreans mean when they say they’re willing to denuclearize? And how exactly would they do so?

NUCLEAR WEAPONS

Inside Defense (Washington, D.C.)

Boeing to Start LRSO, B-52 Integration Studies Next Year

By Rachel Karas

May 22, 2018

Boeing will receive a contract worth up to \$250 million to study how to make the Long-Range Standoff Weapon safe to fly on the B-52 bomber.

Air Force Nuclear Weapons Center spokeswoman Leah Bryant said May 18 the contract, slated to begin Jan. 1, 2019, will ensure the next-generation nuclear cruise missile's airworthiness. Boeing will look into modified aircraft hardware, computer systems and software, crew systems, cybersecurity and flight technology, among other issues.

According to an April 10 notice, the Air Force expects the contract will last five to six years. Bryant did not offer specifics on how the B-52 or LRSO might have to be modified to work together.

Boeing's studies will last into the engineering and manufacturing development phase, slated to begin in early 2022. Raytheon and Lockheed Martin are now refining their LRSO designs under the technology-maturation and risk-reduction phase. The new missile will fly on the B-52 and Northrop Grumman's developing B-21, while the Air Force plans to retire the B-2 in the early 2030s.

<https://insidedefense.com/insider/boeing-start-lrso-b-52-integration-studies-next-year>

[Return to top](#)

Military Times (Vienna, Va.)

Democrats Fight Pentagon's Push for Battlefield Nukes

By Joe Gould

May 22, 2018

WASHINGTON — House Democrats are fighting on multiple fronts to block the Trump administration from developing a new tactical nuclear weapon, and the debate threatens next to spill onto the House floor.

House Armed Services Committee Democrats broadly backed a failed amendment to the National Defense Authorization Act earlier this month that would have stripped the bill's proposed sea-launched, low-yield nuclear warhead.

Democrats have proposed multiple NDAA amendments that are hostile to the weapons. On Tuesday, the panel's top Democrat, Rep. Adam Smith, of Washington, said the fight isn't over.

"I wouldn't even describe it as unease. We are inalterably opposed to it," Smith told reporters, adding that low-yield nukes are "a mistake."

"It makes people start calculating: 'Well, it's a small nuclear weapon, maybe we'll have a small nuclear exchange and that will be OK,'" Smith said. "Our deterrence policy has to be: no nukes under any circumstances."

Smith's stance is along the same vein as his previous positions on nuclear weapons. He's balked at the long-term costs of nuclear weapons modernization, proposed the country adopt a policy of not using nuclear weapons first and attempted to cut funding for the air-launched cruise missile replacement.

Smith's call to arms — or dis-arms — Tuesday came hours before the top Democrat on the Senate Subcommittee on Energy and Water Development, Sen. Diane Feinstein, voiced her opposition to the \$65 million allocated in the committee's appropriations bill.

"I cannot support a new nuclear weapon," Feinstein, of California, said during the subcommittee's markup of the bill. "Quite frankly, I don't believe there's anything such as a limited nuclear war. I don't see any reason to develop new low-yield weapons. Once a nuclear weapon is used, by any country against any target, I believe it's Armageddon, and it's the end of us."

The weapon exceeds past nuclear modernization efforts, she said before signaling support for the appropriations bill overall.

A day earlier, the House Rules Committee cleared an NDDA amendment that would fence half the 2019 funding for the weapon — a modified W76, dubbed the W76-2 — until the defense secretary submits an assessment of its impact on strategic stability and options to reduce the risk of miscalculation.

That amendment, by Reps. Earl Blumenauer, D-Ore., and Jim Garamendi, D-Calif., was among 103 that House Rules cleared Monday for floor consideration. Among the 560 others pending Tuesday, one from Rep. Ted Lieu, D-Calif., would kill the W76-2 by shifting its \$65 million budget line to deficit reduction.

These amendments have a long, dim path procedurally and politically. All but a few Republicans, who hold the majority in both chambers, are unlikely to vote for measures that tie the president's hands or contradict his defense strategy.

The Trump administration's Nuclear Posture Review laid out the thinking behind the weapons. Russia is investing in its own, assuming it can use them on the battlefield to back down any enemy who lacks proportional response, the thinking goes.

The House Armed Services Committee earlier this month voted along party lines to include an endorsement of the Nuclear Posture Review in the NDAA and to reject a series of Democratic amendments along these lines.

In the debate, HASC Republicans echoed Defense Secretary Jim Mattis and other Pentagon leaders to favor a robust nuclear program that poses a credible deterrent and keeps pace with Russia's and China's modernization efforts. Plus, it provides the United States with more flexibility in war, it's argued.

HASC Democrats, generally speaking, echoed disarmament advocates, warning against a new arms race, a lower threshold for the use of nuclear weapons and a heightened risk of miscalculation.

"We understand they are inalterably opposed, but we have to understand Russia has this capability," House Strategic Forces Subcommittee Chairman Mike Rogers, R-Ala., said Tuesday of Democrats.

"I think one of the reasons they don't believe we wouldn't respond is we don't have the capability to do it without all-out nuclear war," Rogers said of Russia. "They have to understand that we can, with precision, do exactly what they would do to us."

The debate likely to spill onto the House floor has already spread beyond the House Armed Services Committee. "At a time when we should be reducing the threat of nuclear war — indeed at a time

when we are asking other nations to [reduce] this threat, we are doing just the opposite,” said Rep. Barbara Lee, D-Calif. Lee proposed and withdrew an amendment to move \$65 million for the W76-2 to nuclear nonproliferation accounts.

On Tuesday, Smith declined to say whether Democrats would continue to target appropriations bills.

“I can’t say. It seems like the Republicans are all in for this,” he said. “But yeah, we’re going to keep fighting this, through this administration and beyond.”

<https://www.militarytimes.com/congress/2018/05/22/democrats-fight-pentagon-push-for-battlefield-nukes/>

[Return to top](#)

RT (Moscow, Russia)

New ICBM in 2020, Hypersonic Glider in 2019: Putin Outlines Nuclear Deployment Plans

Author Not Attributed

May 19, 2018

The Russian military is expected to deploy the Sarmat ICBM in 2020 and the Avangard hypersonic glider warhead in 2019, according to Vladimir Putin. He described both weapons as essential for future nuclear deterrence.

The deadline for the deployment of the two weapon systems was confirmed by the Russian president on Friday during a meeting with defense officials and contractors – the first such meeting since the reshuffle of the Russian cabinet earlier this week.

The Sarmat is Russia’s future silo-based intercontinental ballistic missile, which will replace the ageing Voyevoda ICBMs. The new weapon is said to have extended range, which allows such missiles to reach US territory from the south, where they cannot be stopped by anti-ballistic interceptors deployed in Alaska.

The Avangard is a nuclear warhead, which can glide through the atmosphere at hypersonic speeds that make it virtually impossible to intercept with modern and near-future technologies. The Sarmat is expected to carry Avangard gliders.

Both weapon systems were showcased by Putin in March during a key policy speech. He said they and several other weapons currently in development in Russia make American ABM systems incapable of reducing Russian nuclear deterrence in the foreseeable future. He said this means that Washington’s decades-old effort to tip the strategic balance with Russia in America’s favor has failed.

<https://www.rt.com/news/427196-sarmat-avangard-deployment-deadlines/>

[Return to top](#)

C4ISRNET (Vienna, Va.)

Russia Hints at a Nuclear Armed Drone Submarine for 2027

By Kelsey Atherton

May 19, 2018

Poseidon is an unsubtle name for a robot. So when a country decides to name a category of vessel after the god of the ocean, it suggests a gravitas, a significance that no lesser name would convey. This week, Russian media floated a new machine, an underwater uninhabited robot program, tentatively aimed at at 2027 release, which earns its divine moniker in the least subtle of ways: it's built to carry and use nukes.

We first saw a glimpse of Poseidon or a Poseidon-like craft in the draft of the Pentagon's nuclear posture review released this January, though it didn't have that moniker then. That document referred to an "autonomous underwater vehicle" dubbed Kanyon by the Pentagon and formally labeled Ocean Multipurpose System Status-6. This vehicle would operate from another submarine, though it's own speed and depth ranges fall within the capabilities listed this week for the Poseidon drone.

As reported by Russian state-owned media agency TASS, Poseidon is designed to be armed with a "two megatonne warhead," primarily aimed at destroying hardened naval bases accessible from the sea. To get to those targets, the Poseidon will travel at depths of over 3,000 feet below the surface and with a top speed of around 80 mph. In addition to potentially carrying a nuclear warhead, the Poseidon will run on a nuclear powerplant.

That is a lot of hurt and danger to put inside a robot. Fascinating still, this isn't the first time a Russian government has floated the idea.

"A similar concept was under development in the USSR in the 1950s-1960s but was ultimately shelved", says Samuel Bendett, a research analyst at the Center for Naval Analyses. "So this particular UUV is unique."

The Cold War was full of strange ideas for unmanned nuclear weapon systems, like the U.S. Navy's experiments with the Gyrodyne DASH remotely piloted helicopter built to carry B57 nuclear depth charges, or the plans to use uncrewed but remotely controlled B-47 bombers as one-way nuclear dive bombers. While putting a nuke on a remote controlled craft carried plenty of its own risks, in light of autonomous systems those risks seem almost quaint, as remote control leaves a human in control for the entire operation. And while the United States is committed to its new B-21 bomber being "optionally manned", Pentagon officials are still skeptical that this optionally manned version will ever be used with nuclear weapons on board.

Operating underwater, for a vessel like Poseidon, means operating autonomously, as the signals that enable remote control simply cannot penetrate water in a meaningful way. We have seen such autonomous operations before, notably in unarmed systems like the Echo Seeker scout, but putting weapons on an autonomous system is a categorically more dangerous problem, and that danger scales up drastically when the weapon's destructive potential is measured in megatons.

"Details about the actual technology that would give this weapon autonomy are scarce, at best," says Bendett, "though we can suppose that it would travel along pre-programmed routes to reach the target. Russians are experimenting with small ISR UUVs such as 'Galtel' — Russians recently announced it was mapping the sea bed near Syrian coast in autonomous mode that was assisted by on board AI. Perhaps similar technology, once perfected via numerous trials, can guide the Poseidon UUV."

This is the better context for understanding Poseidon: as a capstone program for an expansive program of underwater robots, rather than an immediate threat to start planning for tomorrow. After all, the oceans of the world already have nuclear-armed submarines operated by multiple nations, ready for a war everyone hopes never comes. Poseidon would be one way for Russia to continue this capability, with fewer human labor requirements.

“In their official statements, Russian position their unmanned underwater vehicles as extensions of their military capabilities in the ‘World Ocean,’” says Bendett, “Russians view the global maritime commons as a single entity where they earlier had difficulties “seeing and hearing” -- that changes dramatically with the development, testing and fielding of various unmanned/semi-autonomous underwater systems with ISR or combat capabilities.”

There is a vast gulf between concept art and aspirational concept and viable, real-world threat. And not all vessels named Poseidon live up to their great and terrible namesakes. Still, we should look at Poseidon as a herald of what the future might contain, one where 2-megaton warheads are somehow condensed into a drone-sized body, where robots lurk below the surface waiting for the end of the world, where other robot ships track those submarines from the surface, and where the hypotheticals posed by science fiction spill into reality.

“Poseidon fits into the Russian plans for a breakthrough technology capable of greatly extending the nation’s military reach far from shore,” says Bendett. “That is, of course, if it works as planned and there are no technical issues with its operation.”

<https://www.c4isrnet.com/unmanned/2018/05/18/russia-hints-at-a-nuclear-armed-drone-submarine-for-2027/>

[Return to top](#)

US COUNTER-WMD

Bloomberg (New York, N.Y.)

The U.S. Army Is Turning to Robot Soldiers

By Justin Bachman

May 18, 2018

Right now, they’re used for reconnaissance and explosives. Soon, they’ll be on the battlefield alongside troops. Then comes the hard part.

From the spears hurled by Romans to the missiles launched by fighter pilots, the weapons humans use to kill each other have always been subject to improvement. Militaries seek to make each one ever-more lethal and, in doing so, better protect the soldier who wields it. But in the next evolution of combat, the U.S. Army is heading down a path that may lead humans off the battlefield entirely.

Over the next few years, the Pentagon is poised to spend almost \$1 billion for a range of robots designed to complement combat troops. Beyond scouting and explosives disposal, these new machines will sniff out hazardous chemicals or other agents, perform complex reconnaissance and even carry a soldier’s gear.

“Within five years, I have no doubt there will be robots in every Army formation,” said Bryan McVeigh, the Army’s project manager for force protection. He touted a record 800 robots fielded

over the past 18 months. “We’re going from talking about robots to actually building and fielding programs,” he said. “This is an exciting time to be working on robots with the Army.”

But that’s just the beginning.

The Pentagon has split its robot platforms into light, medium and heavy categories. In April, the Army awarded a \$429.1 million contract to two Massachusetts companies, Endeavor Robotics of Chelmsford and Waltham-based QinetiQ North America, for small bots weighing fewer than 25 pounds. This spring, Endeavor also landed two contracts worth \$34 million from the Marine Corps for small and midsized robots.

In October, the Army awarded Endeavor \$158.5 million for a class of more than 1,200 medium robots, called the Man-Transportable Robotic System, Increment II, weighing less than 165 pounds. The MTRS robot, designed to detect explosives as well as chemical, biological, radioactive and nuclear threats, is scheduled to enter service by late summer 2019. The Army plans to determine its needs for a larger, heavier class of robot later this year.

“It’s a recognition that ground robots can do a lot more, and there’s a lot of capabilities that can and should be exploited,” said Sean Bielat, Endeavor’s chief executive officer. Specifically, he points to “the dull, the dirty and the dangerous” infantry tasks as those best suited to robotics.

During combat operations in Iraq and Afghanistan, the Defense Department amassed an inventory of more than 7,000 robots, with much of the hardware designed to neutralize improvised explosive devices (IEDs). Military brass were trying to quickly solve a vexing problem that was killing troops, but the acquisition strategy led to a motley assortment of devices that trade journal Defense News last year called “a petting zoo of various ground robots.”

This approach also meant that each “pet” was essentially a one-off device used for a single task. The Army’s current approach is to field more inter-operable robots with a common chassis, allowing different sensors and payloads to be attached, along with standardized controllers for various platforms, said McVeigh, a retired Army colonel.

This strategy is also geared toward affordability. “If we want to change payloads, then we can spend our money on changing the payloads and not having to change the whole system,” he said. While it ramps up to use its newer robots, the Army will retain about 2,500 of the medium and small robots from the older fleet.

Amid their many capacities, none of the current or planned U.S. infantry robots is armed—yet. Armed robots are hardly new, of course, with South Korea deploying sentry gun-bots in the demilitarized zone fronting North Korea and various countries flying drones equipped with a variety of weapons.

“Just strapping a conventional weapon onto a robot doesn’t necessarily give you that much” for ground troops, said Bielat, the Endeavor Robotics CEO. “There is occasional interest in weaponizing robots, but it’s not particularly strong interest. What is envisioned in these discussions is always man-in-the-loop, definitely not autonomous use of weapons.”

Yet, depending on one’s perspective, machines that kill autonomously are either a harbinger of a “Terminator”-style dystopia or a logical evolution of warfare. This new generation of weaponry would be armed and able to “see” and assess a battle zone faster and more thoroughly than a human—and react far more quickly. What happens next is where the topic veers into a moral, perhaps existential, morass.

“It seems inevitable that technology is taking us to a point where countries will face the question of whether to delegate lethal decision-making to machines,” said Paul Scharre, a senior fellow and director of the technology and national security program at the Center for a New American Security.

Last year, 116 founders of robotics and artificial intelligence, including Elon Musk, the billionaire founder of Tesla Inc. and SpaceX, sent a letter to the United Nations urging a ban on lethal autonomous weapons.

“Once developed, they will permit armed conflict to be fought at a scale greater than ever, and at timescales faster than humans can comprehend,” the letter stated, warning of a “Pandora’s box” being opened with such systems.

To date, 26 countries have joined calls for a ban on fully autonomous weapons, including 14 nations in Latin America, according to the Campaign to Stop Killer Robots. Notably absent from this list are nations with robust defense industries that research AI and robotics—countries such as the U.S., Russia, Israel, France, Germany, South Korea and the United Kingdom.

The campaign was launched five years ago by activists alarmed at the prospect of machines wielding “the power to decide who lives or dies on the battlefield.”

“If you buy into the notion that it’s a moral and humanitarian issue—that you have machines making life-and-death decisions on the battlefield—then it’s a very simple issue,” said Steve Goose, director of Human Rights Watch’s arms division and a co-founder of the campaign. “People have a sense of revulsion over this.”

Not long ago, such futuristic software seemed, if not quite impossible, at least 30 years away. Given the pace of research, however, that’s no longer the case—a fact that has given the effort by Musk, Goose and others new urgency.

“It seems that each year, that estimate has come down,” Goose said. Autonomous weapons systems are “years, not decades” hence, he said in an interview last month from Geneva, where a UN group convened its fifth annual conference on Lethal Autonomous Weapons Systems.

Much of the recent discussion has focused on defining the terms of debate and where human control for lethal decisions should lie. There are also questions as to how quickly such machines will proliferate and how to deal with such technology in the hands of rogue, non-state actors.

Over time, Goose said, the campaign will “convince these governments that every nation is going to be better off if no nation has these weapons.” But Scharre said there’s no chance the UN will agree to a legally binding treaty to ban autonomous weapons. He predicts that “a critical mass” of nations supporting some type of ban could pursue an agreement outside the UN.

While proponents may argue that autonomous robot soldiers will shield soldiers from harm, they will also remove the bloody consequences of armed conflict, a knowledge that “puts a valuable brake on the horrors of war,” said Scharre, a former Army Ranger.

“There’s a value of someone being able to appreciate the human consequences of war,” he said. “A world without that could be potentially more harmful. If we went to war and no one slept uneasy at night, what does that say about us?”

<https://www.bloomberg.com/news/articles/2018-05-18/the-u-s-army-is-turning-to-robot-soldiers>

[Return to top](#)

C4ISRNET (Vienna, Va.)

The Sensors That Could Sniff Out Chemical Weapons

By Adam Stone

May 21, 2018

As Syrian leader Bashar al-Assad has shown, chemical weapons are no longer on the forbidden fringe of warfare.

“Let’s be clear: Assad’s most recent use of poison gas against the people of Douma was not his first, second, third, or even 49th use of chemical weapons,” Ambassador Nikki Haley told the UN Security Council on April 13. “The United States estimates that Assad has used chemical weapons in the Syrian war at least 50 times. Public estimates are as high as 200.”

That evolution has breathed new urgency into U.S. military efforts to more effectively detect the use of chemical and other non-conventional arms. One project underway at the Navy Research Lab stands at the forefront of that effort.

Researchers in the Material Science and Technology Division are developing atomically-thin semiconductors to serve as sensors in emerging detection systems. The team published a 2017 paper in Scientific Reports and has two patent applications pending.

“We’re now in the applied phase of basic research. We’re going to start building prototypes that we can test in real world situations,” said Adam Friedman, the lead researcher on the team which includes at least seven physicists, chemists and engineers. “We’re looking for ways to build the technology that we can put into real sensors in the field.”

The military already has access to a range of portable sensors. The primary models detect based on electronic measurements, optical readings and ion mobility spectrometry. They’re good, but not good enough. The chief drawback is that sensors are specialized: chemical sensors look for chemicals but aren’t optimized to search for traces of radiation, for example. Most also have mechanical limitations.

“They can usually do only one thing, they tend to be dependent on things like temperature and humidity, and they also use a lot of power,” Friedman said.

Other military leaders have acknowledged the need for a more robust solution.

“As the threat of a chemical or biological attack on the United States homeland and military forces abroad continues to grow, the Department of Defense’s (DoD) sense of urgency to develop effective chemical and biological sensors to mitigate this threat also grows,” a DARPA document reads.

DARPA has its own effort underway. Its SIGMA+ program aims to combine sensors with sophisticated analytics as a means for detecting nuclear, chemical and other threats.

Atomic-scale sensing

The NRL effort aims to create a sensing mechanism that is literally three atoms thick, a sensor that virtually eliminates concerns about size, weight and power.

“We’re talking about putting the entire thing onto a watch battery,” Friedman said. “If you do that and add a few antennas and some measuring electronics, it would cost \$10 per sensor and weight less than 5 grams. You’d probably get a week of batter life out of it.”

The physics is excruciating, but it basically comes down to this: all the major “nasty compounds” tend to shed electronics. Sarin gas, ammonia-based explosives, “they all have an excess amount of

charge, and these [developmental] materials happen to be very good at accepting charge," Friedman said.

"These films can sense a single electron. It is reflected in the film's conductivity and reflected in its optical properties. The film becomes more conductive and we read that conductivity" in order to determine what happened, he said.

Scientists know what it looks like when toxic substances shed electrons. The material being developed by NRL will detect those minuscule electronic exchanges and rapidly determine what noxious substances are present.

Navy's expeditionary forces have already expressed an interest in the technology, "You have lots of people and potentially lots of information about the battlefield," Friedman said. With a fast and accurate detection tool, "you can put it all together to get a much better picture of what is going on."

The NRL sensor could be incorporated into existing sensor platforms within five years. In the long term, scientists envision this becoming a standard piece of expeditionary equipment.

"My goal is to put a sensor on every single Marine or soldier in the field and to be able to integrate the information from all of those sensors to get an overall picture of the battlefield," Friedman said.

"If you can make the sensors small and sensitive and wearable, and if everyone has one and they are interconnected, your platoon will be able to pinpoint buried explosives or the location of a chemical factory," he said. "It would make the battlefield safer for soldiers who would have much more information, and it would make missions much more efficient if you are trying to locate something that could possibly be dangerous."

<https://www.c4isrnet.com/intel-geoint/sensors/2018/05/21/the-sensors-that-could-sniff-out-chemical-weapons/>

[Return to top](#)

Inside Defense (Washington, D.C.)

Industry Asked for New Hawaii Radar Proposals

By James Sherman

May 18, 2018

The Missile Defense Agency has launched a potential \$1 billion competition for new radars being developed to increase the effectiveness of the Ground-based Midcourse Defense segment of the Ballistic Missile Defense System against long-range North Korean rockets.

On May 16, the agency issued a request for proposals for the Homeland Defense Radar-Hawaii program. The solicitation is not public.

The Missile Defense Agency previously announced plans to award up to three indefinite-delivery, indefinite-quantity contracts and plans to build up to three sensors as part of the program.

"The MDA anticipates to award up to three IDIQ contracts but will award to all qualifying offerors for the development and delivery of no more than three Homeland Defense Radars," the notice states. "This strategy will promote competition and leverage industry innovations available to the warfighter to meet requirements."

MDA estimates the five-year cost of the Hawaii radar project -- between FY-19 and FY-23 -- to be \$763 million for development and acquisition and \$321 million for military construction.

<https://insidedefense.com/insider/industry-asked-new-hawaii-radar-proposals>

[Return to top](#)

SpaceNews (Alexandria, Va.)

Missile-tracking Satellites are Part of the Plan to Foil Russia's Hypersonic Weapons

By Sandra Erwin

May 20, 2018

Russia reportedly is testing hypersonic ballistic glider weapons that currently would be undetectable after the initial boost phase of their flight.

WASHINGTON — The Pentagon is looking at the possibility of deploying sensors in space to fill blind spots in the nation's antimissile defense system.

This not a new idea. Six previous administrations have weighed concepts for space-based sensors but none materialized — the exception being two experimental satellites launched during the George W. Bush presidency that are still in orbit.

The Trump administration is expected to seek funds in 2020 to begin work on a constellation of missile-watching sensors. Congress has hinted it would support the plan in light of new warnings that Russia is testing hypersonic ballistic glider weapons that currently would be undetectable after the initial boost phase of their flight.

To track these ultra-high speed gliders, the vantage point of space would be advantageous, said Tom Karako, senior fellow at the Center for Strategic and International Studies.

"We're hearing a lot of good words about a space sensor layer. But as of right now it has not been translated into programs and budgets," Karako told SpaceNews.

The Pentagon is expected to shed light on its future plans in the upcoming Ballistic Missile Defense Review. Defense Department spokeswoman Dana White said last week the review is still going through the approval process and its release is forthcoming.

With both Russia and China said to be close to deploying hypersonic glide vehicles — conceivably with nuclear warheads — the Pentagon does not have a lot of time to study how to build a defense architecture, said Karako. "We have to move out," he said. "We should not wait for the 2020 budget. If we're serious about the need for speed, there should be an adjustment to the 2019 budget."

Senior defense and military officials have been pushing to get a program started, said Karako. "Mike Griffin [undersecretary of defense for research and engineering] is leaning forward on this pretty hard," he said.

Missile Defense Agency Director Lt. Gen. Samuel Greaves has been a proponent of deploying sensors in space, as has U.S. Strategic Command's Gen. John Hyten.

"MDA could take the lead, but Greaves might bring in the Air Force as well," said Karako. Greaves is a former director of the Air Force Space and Missile Systems Center. "He is a space guy," which makes this a "particularly ripe moment" for MDA and the Air Force to collaborate on this project.

The utility of space sensors has been studied for decades so the Pentagon has plenty of data to draw from. Electronic eyes in low-Earth Orbit would be looking sideways at objects "with the coldness of space behind them," said Karako. "That vantage point is useful. You also can watch objects

persistently from birth to death as opposed to ground-based radars which by nature are limited by the horizon.”

The Pentagon during the Clinton administration conceived a plan for a 24-satellite LEO constellation to track missiles, but it never got off the ground. The Bush White House ordered two prototype satellites from Northrop Grumman, known as the Space Tracking and Surveillance System. “They’re still up there,” said Karako. “But they are not very survivable, and two satellites in LEO can’t cover the globe.”

It is hard to conceive a scenario to defend the United States from hypersonic vehicles that does not involve a layer of sensors in space, Karako said. “You don’t have to fill up the Pacific Ocean with lots of radars looking up at the sky. You can do a lot from space.”

The problem for the United States is that the existing missile shield designed to thwart a ballistic missile attack cannot handle the “quasi ballistic threat” that would be posed by the next generation of Russian and Chinese weapons. A hypersonic weapon could be launched atop an intercontinental ballistic missile, and it would glide on top of the Earth’s atmosphere to its designated target. The glide vehicles were designed to penetrate U.S. missile defenses by flying around radars and high in the atmosphere above the reach of U.S. interceptor missiles like Patriot. They are aimed “at the gaps and seams of where our missile defenses are able to intercept,” said Karako.

The Missile Defense Agency continues to operate both STSS satellites. It requested \$37 million in its 2019 budget for operations and sustainment. The satellites were launched in 2007, and have far exceeded their life expectancy. One option for MDA is to build out that constellation. Another is a more distributed architecture of smaller and less expensive satellites.

Karako said the price tag would be significant but it could be offset by spending less money on ground-based sensors. “Populating every island in the Pacific with a radar is not cheap either.” The Pentagon has requested \$2.5 billion in 2019 for two large radars.

<http://spacenews.com/missile-tracking-satellites-are-part-of-the-plan-to-foil-russias-hypersonic-weapons/>

[Return to top](#)

US ARMS CONTROL

Real Clear Defense (Chicago, Illinois)

In Defense of the Low Yield Nuclear Trident Missile

By Matthew R. Costlow

May 23, 2018

Why do states go to war? Obviously there is no mechanical formula where if factors x, y, and z are present – then war is certain. Individual leadership personalities, the anarchic international system, the structure of political incentives, and multiple other theories are plausible answers to the question; but one misconception remains popular today: weapons cause war.

As strategist Colin Gray (who according to Secretary of Defense Mattis is “the most near-faultless strategist alive today”) has expounded upon at length, the amount and sophistication of a state’s arms are properly categorized as the effect, not the primary cause of war. “States do not fight

because they are heavily armed; rather they are heavily armed because they judge war to be a serious possibility.”

In the debate about how many and what type of weapons the United States should maintain, failure to understand and correctly adjust U.S. strategy to the real causes of war can have catastrophic effects. One such weapon in the critics' crosshairs is the proposed modification of a “small number” of nuclear warheads on submarine-launched ballistic missiles. This modification would reportedly change a small number of the high yield nuclear warheads to low yield nuclear warheads.

Despite broad bipartisan support of the proposed change, including from the past two Secretaries of Defense who served under President Obama, critics have labeled it as “more usable,” a “gateway to nuclear catastrophe,” and the igniter of a “global nuclear arms race.”

Are critics right that a potentially less-destructive, but still massively-powerful, nuclear weapon is “easier” to use, thus making nuclear war and arms races more likely? The available evidence suggests otherwise.

First, the claim that low-yield nuclear weapons can make a President's trigger finger itchier is simply unsupported by history. Despite reportedly having thousands of low-yield sea, air, and land-based nuclear weapons throughout the 1960s and 1970s, U.S. Presidents did not seem any more inclined to begin a nuclear war or escalate a nuclear crisis. The United States and the Soviet Union, and now Russia, have reportedly had low-yield nuclear weapons for over half a century, so if they were such destabilizing weapons, it seems we should have evidence for it by now. The nuclear crises of the Cold War were caused by differences in political preferences, not because of the yields of nuclear weapons.

Again, if the total number of non-strategic nuclear weapons was linked to the possibility of war, the United States and Russia should be having the most peaceful political relations in decades, since the number of U.S. and Russian non-strategic nuclear weapons is likely at its lowest since the 1960s. The current antagonistic relationship then must be caused by something other than non-strategic nuclear weapons themselves. Even less so considering the NPR proposal calls for a “small number” of nuclear warheads to be modified, hardly the thousands from the Cold War.

Understand that the weapons by themselves are not unnerving, our adversaries' political and military intentions for utilizing them are. The British reportedly have low-yield options on their submarine-launched nuclear missiles, but they are not a revisionist power, so we do not fear them. Russia, on the other hand, retains and is modernizing about 2,000 of these “battlefield” nuclear weapons, has revisionist intentions, and regularly threatens their use against U.S. allies and partners; thus the United States views it as a threat.

Second, the claim that modifying a few U.S. nuclear warheads will cause a “global nuclear arms race” is absurd on its face; timelines since the Cold War, in fact, show otherwise. Partially declassified CIA documents show that as early as 1999 the intelligence community suspected Russia was developing low and very low yield nuclear weapons, yet the United States went in the opposite direction by moving to consolidate and retire four reportedly variable-yield warheads with low options.

And at a total cost of about \$65 million over five years for the low-yield modification program, the problem is not money.

Fundamentally, it is the fear of causing a nuclear war that has critics so concerned – a legitimate fear that should not be brushed aside casually. Again, however, weapons don't make war, political intentions do. Military strategist Carl von Clausewitz said “war is the continuation of politics by other means,” and weapons are only the end result, not the cause.

At the end of the Cold War, Russia likely maintained more strategic and non-strategic nuclear weapons than it does today; but by 1994 the U.S. Department of Defense could speak about “partnership with Russia” and a new era of improved political relations. Again, the weapons themselves did not cause the Cold War, opposing political and ideological goals caused the Cold War.

Thus, U.S. political considerations should be the lens through which we view nuclear weapons. The primary purpose of the low-yield nuclear missile is to credibly communicate to Russia or any other competitor that there will be no advantage in striking the United States or its allies, even with a low-yield nuclear weapon. This is not a nuclear “war-fighting” weapon, it is primarily a political weapon aimed at dissuading any adversary’s misguided dark fantasy of possibly fighting and winning a nuclear war.

Existing U.S. low-yield options are air-delivered, but as U.S. STRATCOM Commander General John Hyten testified recently, they “may not be the right response in terms of timeliness and survivability to get to where the threat is.” This point is where critics of the low-yield option, like former Secretary of Defense William Perry, are led astray. The bipartisan 1983 Scowcroft Commission, on which Secretary Perry served as a member, stated: “Deterrence...requires military effectiveness.” The purpose of the low-yield weapon is not to fight a limited nuclear war, it is to deter such a fight; and one of the characteristics required for that mission is “military effectiveness,” i.e., range, speed, and survivability.

The real source of nuclear danger today is not the replacement of the aging U.S. nuclear arsenal, nor the modification of a few U.S. warheads. Rather, the nuclear threat radiates from the heart of Moscow in the forms of serial violation of arms control agreements, nuclear targeting threats, and a revisionist state policy which respects no boundaries.

State and non-state actors, including disarmament activists, would do well to concentrate their efforts on the Russian political problem, not the U.S. military response.

https://www.realcleardefense.com/articles/2018/05/23/in_defense_of_the_low_yield_nuclear_trident_missile_113476.html

[Return to top](#)

CNN (Atlanta, Ga.)

To Experts, North Korea Dismantling Nuclear Site Is Like Destroying Evidence

By Jamie Tarabay

May 22, 2018

(CNN) — Cheryl Rofer is a chemist who spent 35 years working on environmental cleanups everywhere from Estonia to Kazakhstan, disassembling and decommissioning nuclear weapons, and overseeing the destruction of chemical weapons.

But unlike international journalists, she is not on the list of people invited this week to witness the destruction of North Korea's Punggye-ri nuclear test site.

"I was hoping you were going and I could talk you into bringing me along," she said to CNN.

The small contingent of international journalists invited into North Korea departed Beijing Tuesday for Wonsan, a city on the country's east coast.

No weapons inspectors or individuals with any kind of expertise were expected to attend the event, which North Korea has said would "ensure transparency of discontinuance of the nuclear test."

When it made the announcement on April 20, the Workers' Party of Korea's Seventh Central Committee declared that the country had "realized nuclear weaponization," and to ensure the end of all nuclear testing it would "discard" the test site in the north.

Journalists from the US, China, Russia and the UK have all been invited to witness the event. They're expected to view the activity from a distance, without any real opportunity to get a sense of what might have happened inside Punggye-ri's tunnels.

Like trampling on a crime scene

Bruce Bechtol says evidence that might have been collected will now be lost to the world.

"It's kind of like a murder scene where they let people like you and me trample around in it, it's the same concept," said Bechtol, a professor of political science at Angelo State University who has authored several books on North Korea.

"The North Koreans have conducted all these tests here, every single weapons test, so if they let experts in to look at these tunnels before they let anyone else in that would be potentially for us an intelligence boon," he said.

Some observers have said that the site had become partially unusable anyway due to the damage incurred after six nuclear tests since 2006, while others say the site was still in operation only months ago.

Regardless of its operating status, there is still much to be gained from allowing experts in to look around and collect various residue, says Rofer.

"If I were going I would want to bring some capability of taking samples, and I would also want to bring a geologist with me. I'd want to have a radiation counter, I would want to go into the tunnel to see if parts of it have caved in in the back, and I would want to take radiation measurements."

All those samples and tests could yield information on the kinds of weapons that were being tested, she said.

"Isotope measurements could tell you about the design of the device, it would tell you what kind of bombs they're making, what they're making them out of, how much uranium and plutonium is in the bombs. We might be able to infer what they're planning and the shape of their progress," she said.

All of that information, experts say, could then be fed back to negotiators to give them a stronger hand in dealing with the Kim regime, including giving them the ability to know whether they are truly extracting concessions, or just cosmetic changes.

A feeling of déjà vu

The prospect of such a public demolition gives Melissa Hanham, a senior research associate at the James Martin Center for Nonproliferation Studies, a sense of déjà vu.

"A lot of this reminds me of the theater of when they destroyed the cooling tower under the Bush administration, and the media was invited to observe the tower exploding and gave a good visual which the Bush administration and the Kim family promoted," she said.

"It's not irreversible, they eventually found a different way to cool the reactor."

In 2008, North Korea destroyed a water cooling tower at a facility state officials admitted to using to extract plutonium to build nuclear weapons. The massive explosion at the Yongbyon facility was meant to symbolize the end of Pyongyang's nuclear program.

During that time, under pressure from restrictive sanctions and international isolation, the North Koreans were more forthcoming about the extent of their program. Along with the journalists invited to watch the event were US State Department officials and observers from the International Atomic Energy Agency, CNN reported.

Among the disclosures North Korea made at the time about its nuclear program was the revelation that it had produced roughly 40 kilograms of enriched plutonium, something the US State Department said was enough for about seven nuclear bombs.

In response, then-US President George W. Bush said he would lift some US sanctions against North Korea and remove it from the administration's list of state sponsors of terrorism.

It later emerged that the North Koreans had been building a separate facility to continue producing fissile material without disclosing it to international authorities.

Last November, President Donald Trump returned North Korea to the state sponsors of terrorism list.

Critical to understanding North Korea's nuclear history

The world is missing an opportunity in allowing North Korea to unilaterally dismantle the site without having a chance to inspect it first, says Cheon Seong Whun a visiting research fellow at the Asan Institute for Policy Studies.

"It's very critical evidence that helps us understand the history of North Korea's nuclear program, and if North Korea is sincere about giving up its nuclear weapons," he said.

"What they have to do is provide all necessary information and documents to the international community and then invite UN inspections, North Korea doesn't have to dismantle this on its own, this isn't something that should be done in haste."

Cheon, a former South Korean government official who worked in the defense and unification departments, argues rather, that North Korea might be destroying the site now to avoid providing access to it down the road, possibly as part of a concession from a summit with Trump that is planned for June 12 but currently looking uncertain.

"North Korea's arbitrary action to dismantle this facility on its own, this is not something that we can believe is part of North Korea's declared aim of denuclearization. It's nothing more than destroying evidence."

For longtime North Korea observers, another indicator of Kim Jong Un's motives lie in the timing of the scheduled demolition -- it's happening at the same time South Korean leader Moon Jae-in is visiting President Trump at the White House.

"Look at the timing," said Cheon. "This is the time Moon is meeting Trump in Washington, this isn't just a coincidence, he wants to take advantage of this event with political propaganda."

Rofer believes even if parts of the tunnels are blown up, they can always be unearthed later should the North Koreans want to reuse the site.

"It is absolutely correct that we [the international community] seem to be making all the concessions," she said.

<https://www.cnn.com/2018/05/22/asia/north-korea-destroy-nuclear-site-intl/index.html>

[Return to top](#)

Al-Monitor (Washington, D.C.)

Nuclear Weapons Treaty Exit on Table as Iran Gauges EU Action on Deal

By Saeid Jafari

May 18, 2018

While having granted Europe a chance to save the Joint Comprehensive Plan of Action (JCPOA), Iran is in parallel mulling an exit from the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in response to the US withdrawal from the JCPOA. Such a move would be accompanied with many legal complications but is nonetheless among the most likely of Iranian responses should Europe fail to guarantee that its interests will be protected as outlined in the nuclear deal.

US President Donald Trump's stepping up of his threats to pull out of the JCPOA in the months leading up to his May 8 withdrawal prompted Iranian officials to retort that the West — and especially the United States — would be surprised by their response were Trump to follow through with his threats.

The clearest indication of what this surprise response would be came to light April 24 when Ali Shamkhani, the secretary of the Supreme National Security Council, said, "The NPT acknowledges the right of all its member states to leave the treaty if their interests are endangered," adding that this was an option the Islamic Republic was considering.

This is after Foreign Minister Mohammad Javad Zarif stated April 23, "There are some people in Iran who are talking about that [leaving the NPT]. That's not, certainly, the government's position."

But how seriously should such a prospect be taken? Will Iran truly leave the NPT now that the United States has pulled out of the JCPOA? And does leaving the NPT mean Iranian abandonment of the JCPOA? To answer these questions, one first needs to consider whether Iran's potential withdrawal from the NPT will be in violation of the JCPOA. Although the nuclear deal does not highlight Iran's permanent presence in the NPT as a requirement, it does seem to presume it.

For example, the initial section of the JCPOA states that "the E3/EU+3 and Iran acknowledge that the NPT remains the cornerstone of the nuclear non-proliferation regime and the essential foundation for the pursuit of nuclear disarmament and for the peaceful uses of nuclear energy." The document also points out that the full implementation of the JCPOA will ultimately lead to a normalization of Iran's status as a signatory to the NPT. Furthermore, Iran, as part of its comprehensive safeguards agreement, commits in the nuclear deal to the ratification of the Additional Protocol, which is aimed at monitoring its nuclear activities within the limits of the NPT. Therefore, Iran's exit from the NPT could be interpreted as a violation of the JCPOA, making the situation legally complicated.

Reza Nasri, an Iranian international lawyer based in Switzerland, told Al-Monitor, "In legal discussions a verb can be interpreted in many ways. For example, Iran's exit from the NPT can be viewed as a countermeasure to the United States' violation [of the JCPOA]. It is also a reversible measure that will be adopted merely with the aim of making the United States abide by its commitments as stated in the JCPOA. In other words, Iran's intention to leave the NPT will not be to violate the JCPOA but to force the United States to return to it."

Iranian officials have repeatedly maintained their commitment to the JCPOA, even with the absence of the United States. At the same time, as pointed out by President Hassan Rouhani on May 8, this continued commitment has been described as dependent on whether the European signatories can

provide the necessary guarantees that Iran will enjoy the economic benefits outlined in the nuclear deal.

Azizollah Hatamzadeh, a Tehran-based foreign policy analyst, told Al-Monitor, “For now, Iran needs to showcase its relevance to the other side so that the other parties realize that any breach of commitment will have consequences. Basically, we need to change the equation to make the Europeans realize that if they do not take serious steps to save this agreement, it will have serious consequences. To achieve this goal, Iran’s threats need to be precise and credible. In my opinion, Iran can propose better measures than pulling out of the NPT. For example, it can make [implementation of] the JCPOA conditional through a legal amendment in its parliament.” He added that there is the potential of a “step-by-step increase in uranium enrichment.”

There are, of course, those in Iran who do not think that everything is dependent on US policy. In an April 22 interview with Al-Monitor, Zarif said, “The Trump administration was never in the JCPOA. They made sure over the last 15 months that Iran would not benefit from the economic dividends of the JCPOA, and so whatever they do in three weeks would not be a major break from the past.”

Indeed, Zarif’s approach reflects the current path favored by the Iranian government, which is to shape policy dependent on how Europe reacts to the US withdrawal.

Nosratollah Tajik, a former senior Iranian diplomat, told Al-Monitor, “We signed the JCPOA with the intention of engaging with the international community. Meanwhile, Trump came to power with the slogan of ‘America First.’ Considering that the international community was our priority from the start, we need to make sure our words do not create fear so as to prompt others to line up behind Trump instead of standing up to him.”

He added, “At the same time, we signed the JCPOA to gain benefits; otherwise, it is a piece of paper with no value. If we feel those benefits no longer exist, naturally we will act in a different manner. For now, the European countries at least claim to be with Iran and not Trump in this path. Therefore, we have to try to keep Europe and countries other than the United States on our side as much as possible.”

As Iran and Europe engage in trying to find ways to guarantee that Tehran will receive its promised benefits, it is also worth noting that remarks made by Iranian officials in recent months indicate that they had anticipated Trump’s decision. Indeed, Zarif’s YouTube message May 3 showed that Tehran was still hopeful about the response of European signatories to the JCPOA to a US exit from the deal.

For now, only time will tell whether Europe will manage to save the deal. While there has been some pushback from Europe, including steps to revise the Blocking Statute as well as tough rhetoric about not being “vassals” of the United States, it remains to be seen whether Iran’s interests will be guaranteed in practice. If not, there will likely be a repeat of the circumstances surrounding the collapse of the 2003-05 engagement between Iran and Europe to find a solution to the nuclear issue.

<https://www.al-monitor.com/pulse/originals/2018/05/iran-jcpoa-nuclear-deal-npt-exit-withdrawal-europe-eu.html>

[Return to top](#)

Chicago Tribune (Chicago, Illinois)

U.S. Issues Steep List of Demands for Nuclear Treaty with Iran

By Josh Lederman, Associated Press

May 21, 2018

The United States on Monday issued a steep list of demands to be included in a nuclear treaty with Iran to replace the deal scuttled by President Donald Trump and threatened "the strongest sanctions in history" if Iran doesn't change course.

Drawing sharp contrasts with the 2015 deal, Secretary of State Mike Pompeo said a stronger pact should require that Iran stop enrichment of uranium, which was allowed within strict limitations under the previous deal. Iran would also have to walk away from core pillars of its foreign policy, including its involvement in Syria, Yemen, Lebanon and Afghanistan.

"This list may seem long to some, but it is simply a reflection of the massive scope of Iranian malign behavior," Pompeo said. "America did not create this need for changed behavior. Iran did."

Pompeo vowed that Trump's approach would ensure "Iran has no possible path to a nuclear weapon, ever." As he called for a better agreement to constrain Iran's activities, he said the U.S. would "apply unprecedented financial pressure" to bring Tehran back to the table.

"These will end up being the strongest sanctions in history by the time we are complete," Pompeo said at the conservative Heritage Foundation in his first major policy speech since taking over as top diplomat.

At the same time, Pompeo offered Iran a series of dramatic potential U.S. concessions if it agrees to make "major changes." Under a new agreement, the U.S. would be willing to lift all sanctions, restore full diplomatic and commercial ties with Iran, and even support the modernization of its economy, Pompeo said.

"It is America's hope that our labors toward peace and security will bear fruit for the long-suffering people of Iran," Pompeo said.

Still, Pompeo's list of 12 requirements included many that Iran is highly unlikely to consider. He said Iran must allow nuclear inspectors "unqualified access to all sites throughout the country," Pompeo said, alluding to military sites that were off-limits under the 2015 deal except under specific circumstances. To that end, he also said Iran must declare all previous efforts to build a nuclear weapon, reopening an issue that the U.N.'s International Atomic Energy Agency has already deemed a closed matter.

Pompeo also demanded that Iran cease from a range of activities throughout the Middle East that have long drawn the ire of the U.S. and its allies. He said Iran must end support for Shiite Houthi rebels in Yemen, "withdraw all forces" from Syria, halt support for its ally Hezbollah and stop threatening Israel.

Iran must also "release all U.S. citizens" missing in Iran or being held on "spurious charges," he said.

Taken together, the demands would constitute a wholesale transformation by Iran's government, and they hardened the perception that what Trump's administration really seeks is a change in the Iranian regime. A longtime Iran hawk, Pompeo has spoken positively about regime change in the past, but in his confirmation hearing last month he sought to soften that stance.

Laying out Trump's new approach Monday, Pompeo said he couldn't put a timeline on how long the strategy might take.

"At the end of the day, the Iranian people will get to make their choice about their leadership," Pompeo said. "If they make the decision quickly, that would be wonderful. If they choose not to do so, we will stay hard at this until we achieve the outcomes that I set forward today."

In another departure from the Obama administration's approach, Pompeo said that "a treaty is our preferred way to go." Former President Barack Obama did not seek a Senate-ratified treaty with Iran because of the dim prospects for getting approval from a Republican-run Congress.

Pompeo's speech came after Trump earlier this month infuriated U.S. allies in Europe by withdrawing from the 2015 deal brokered by President Barack Obama, Iran and world powers. Europeans allies had pleaded with Trump not to scuttle that deal and are now scrambling to keep the deal alive even without the U.S.

But the Trump administration has held out hope that those same allies will put aside that frustration and work with the U.S. to ramp pressure back up on Iran through sanctions in a bid to bring Tehran back to the negotiating table for a stronger deal.

Pompeo said he understood that Trump's decision "will pose financial and economic difficulties for a number of our friends." But he warned them that the U.S. planned to follow through with threats to punish European companies that continue doing business with Iran that is allowed under the deal but will violate reimposed U.S. sanctions.

"I know our allies in Europe may try to keep the old nuclear deal going with Tehran. That is their decision to make," Pompeo said. "They know where we stand."

Associated Press writer Matthew Pennington contributed to this report.

<http://www.chicagotribune.com/g00/news/nationworld/politics/ct-pompeo-iran-nuclear-deal-20180521-story.html?i10c.encReferrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8%3D&i10c.ua=1&i10c.dv=14>

[Return to top](#)

COMMENTARY

The New York Times (New York, N.Y.)

Pompeo's Iran Plan: Tell Them to Give Up

By Carol Giacomo

May 21, 2018

Since President Trump renounced America's commitments under the 2015 Iran nuclear deal this month, the question has been what comes next. On Monday, Secretary of State Mike Pompeo announced what he expected to happen — Iranian capitulation.

In a belligerent speech to the conservative Heritage Foundation, Mr. Pompeo said the administration intended to use all of America's economic and military might if Iran did not stop uranium enrichment, developing nuclear-capable missiles and supporting Hezbollah, Houthi rebels in Yemen and Iranian forces in Syria.

The demands — 12 points in all — are so extensive that it is unlikely Iran could comply any time soon, even if it wanted to. And any benefits it would achieve in exchange — sanctions relief, the re-

establishment of diplomatic and commercial relations — would be at some unspecified point in the future.

Mr. Pompeo promised to bring “unprecedented financial pressure on the Iranian regime,” to track down and “crush” Iranian operatives and their Hezbollah proxies around the world, and to inflict “bigger problems than they’d ever had before” if Iranian leaders resume their nuclear program.

There are many things wrong with this approach, but let’s start with this: It’s not a strategy. It’s wishful thinking that will make regional tensions worse, if not lead to outright conflict.

We’re at this absurd point because Mr. Trump cast aside a multinational deal under which Iran curtailed its nuclear program in exchange for sanctions relief. Mr. Trump objected that the deal did not address concerns it was never meant to address, like Iran’s regional activities.

Mr. Trump and his lieutenants act confident that reimposing American sanctions will bring Iran, hampered by a weak economy and political unrest, to heel. But the sanctions that preceded the 2015 nuclear deal were effective because they were broadly supported by the international community, especially Europe, Russia and China.

The Europeans have reaffirmed their commitment to the deal as well as to continued economic engagement with Iran. So what is Mr. Trump doing? Making enemies of America’s best friends by threatening them with sanctions.

Justifiably angered, the Europeans are discussing ways around the American sanctions, further eroding the trans-Atlantic alliance and perhaps hastening the day when they have a financial system far less entwined with the United States’.

Mr. Pompeo’s speech did not demonstrate how walking away from the nuclear deal “has made or will make the region safer from the threat of nuclear proliferation,” Federica Mogherini, the European Union’s foreign policy chief, said. There is “no alternative” to the deal, she said.

There is no defending Iran’s support for Bashar al-Assad, the bloody dictator in Syria, or its use of Hezbollah militants to control Lebanon and threaten Israel. But other countries — including Russia in Syria and Saudi Arabia in Yemen — also fuel regional instability.

Although Mr. Pompeo said the administration’s aim was a comprehensive agreement with Iran, the real goal seems to be to break the regime or force it to resume the nuclear program, thus giving the United States and Israel an excuse for military action.

The world’s experience with regime change in Iraq should make clear why this is a terrible idea. Along with waging war on a false premise, causing tens of thousands of deaths and trillions of dollars in wasted funds, and enabling the spread of Islamist militants, it’s a major reason Iran has gained a foothold in Iraq today.

It’s no coincidence that John Bolton, one of the George W. Bush administration’s architects of that disaster, is now at the center of American policymaking as Mr. Trump’s national security adviser.

There’s also the irony of, as Mr. Pompeo is making these demands, his boss is offering North Korea’s leader, Kim Jong-un — believed to have as many as 60 nuclear weapons — security guarantees to abandon his arsenal. Iran has no nuclear weapons and has significantly curbed its program.

Over the past several weeks, the Iranians have had a reasonably measured response to the American provocations, even as President Hassan Rouhani, a moderate, has faced pressure from hard-liners eager to push back against the United States and restart the nuclear program. The world is left to hope — with no help from Washington — that restraint can hold.

<https://www.nytimes.com/2018/05/21/opinion/pompeo-iran-deal-give-up.html>

[Return to top](#)

The Hill (Washington, D.C.)

In Taking on Iran and North Korea, One Size Does Not Fit All

By Raymond Tanter

May 22, 2018

In the run-up to negotiations with Pyongyang, President Trump has sought to project that he will not settle for just any deal. Looking ahead, he may have in mind a desire to replicate the Pyongyang model with Tehran, “maximum pressure,” combined with willingness to enter broad negotiations — coercive diplomacy.

Meanwhile, foreign policy leaders are discussing the practicalities of denuclearizing North Korea. They need to consider questions like: What does verified denuclearization mean? What were the roadmaps for denuclearization of Pyongyang? How can denuclearization be verified?

Importantly, our leaders must recognize the discrete challenges of Pyongyang and Tehran. Relying on “one size fits all” may lead to disaster. A regime-change policy for rogue Tehran could serve the national interest because Iran has a viable coalition of dissidents; but the same policy might be a disaster, if it were applied to Pyongyang, which lacks a self-sustaining opposition.

What’s sauce for the goose is sauce for the gander: If a regime-change policy were applied to one rogue state, then would that policy be applicable to another rogue state? Not so fast, the bottom line here is that the reverse is true.

Like Pyongyang, which is a nuclear-armed state with a nearing potential capability to strike our cities, Tehran is likely to have those capabilities after a few years of determined effort. Unlike Pyongyang, with no signs of a substantial anti-regime movement, regime change from within Iran can be a tool in the administration’s toolbox. How?

An organized opposition to the Iranian regime exists, and regime change might include the National Council of Resistance of Iran (NCRI), in a principal role.

There’s also the sunset clause in the accord (refraining from breakout for 10 years, after political commitment among parties); and second, snapback provision (reimposing sanctions if there were noncompliance); and, third, international inspections.

Now, what about conflict between the United States and Europe?

Old Europe strikes back against New America

Consider the EU reaction to Washington’s decision to isolate Tehran with secondary sanctions; the EU strikes back to protect European companies from our sanctions, imposed by Treasury on Iran, May 15.

Treasury’s Office of Foreign Assets Control (OFAC) imposed sanctions on the governor and a senior official of the Central Bank of Iran. According to the White House, they moved millions of dollars on behalf of the Islamic Revolutionary Guard Corps (IRGC) to Hezbollah. They were designated as Specially-Designated Global Terrorists (SDGTs), pursuant to Executive Order (E.O.) 13224, which targets terrorists and those providing support to terrorists or acts of terrorism.

But Europe is fighting back against Washington’s isolation of Iran with new rules to protect EU companies from our sanctions.

The Commission said last week it is planning to shield EU-based companies continuing to trade with Iran, despite our decision to quit the deal and reintroduce sanctions.

Earlier, on Feb. 3, 2017:

“Department of the Treasury’s Office of Foreign Assets Control (OFAC) sanctioned multiple entities and individuals involved in procuring technology and/or materials to support Iran’s ballistic missile program, as well as for acting for or on behalf of, or providing support to, Iran’s (IRGC).”

Although outside the jurisdiction of the deal, Treasury acted in the financial sector to counter Tehran’s malign behavior abroad. We could intensify use of economic sanctions to counter Tehran, without repudiating the accord; it does not address Iran’s support for terrorism or ballistic missiles, per White House critiques of the deal.

The Path Forward

The following measures are necessary, per a new book written by NCRI experts, whose findings are consistent with the Trump administration’s strategy: immediate, complete, simultaneous and unfettered inspection of all six sites and centers associated by the IAEA and the full disclosure of the results as soon as possible.

Moreover, “Team Trump” should:

1. Broaden sanctions on Pyongyang and Tehran and instruct his team to persuade European counterparts to implement additional sanctions on these rogue regimes.
2. Press Iran to extend the sunset clause, which lengthens the time Iran has to acquire nuclear weapons. Extending sunset provisions, while providing Tehran with incentives, e.g., sanctions relief is standard practice in the world of arms control.
3. Curb the rogues’ ballistic-missile programs. As CIA Director Mike Pompeo said, “There is a long history of proliferation ties between North Korea and Iran,” and we know technology transfers make it easier to maintain and grow a weapons program.

Trump can strengthen his “America First” platform by addressing those most threatening to U.S. security — Pyongyang and Tehran. The public servants in this administration embodies an ethos of service — one that is civic as well as military — which the United States needs.

<http://thehill.com/opinion/national-security/388723-in-taking-on-iran-and-north-korea-one-size-does-not-fit-all>

[Return to top](#)

Defense One (Washington, D.C.)

America’s New Stealth Bomber has a Stealthy Price Tag

By Kingston Rief and Mandy Smithberger

May 21, 2018

Revealing how much the Air Force’s B-21 is costing won’t help America’s enemies — but will make oversight possible.

The B-21 Raider — the U.S. Air Force’s next nuclear-capable bomber — is being designed to evade enemy air defenses for decades to come. But there’s one thing the program is evading right now: the scrutiny of the American taxpayer and many of their elected representatives.

Citing the need to protect national security, the Air Force has kept secret the value of its 2015 contract award to Northrop Grumman Corp. to continue developing the bomber as well as the estimated total program acquisition and sustainment costs.

As lawmakers in the House and Senate continue to write and debate the fiscal year 2019 National Defense Authorization Act this week, they should support efforts to force the public disclosure of the contract and other program cost data.

Doing so won't give U.S. adversaries a leg up. Fear of a "sticker shock" backlash or embarrassing cost overruns are not legitimate reasons to keep taxpayers in the dark about the price tag of one of the Pentagon's largest and most important programs.

The Air Force is developing the B-21 to replace the aging B-1 and B-2 bombers. The current plan is to procure at least 100 new bombers that would begin to enter service in the mid- to late-2020s, with its nuclear weapons delivery capability to be certified two years after initial operating capability. Last October, the Congressional Budget Office projected the total program acquisition cost (development and procurement) at \$97 billion in 2017 dollars.

According to Senate Armed Services Committee Chairman John McCain, R-Ariz., releasing the value of the contract award would not reveal anything about the B-21's capabilities that couldn't be gleaned from the information that has already been released.

The Pentagon has already released substantial information to help solidify political support for the program, but not the essential budget details that would hold the department's feet to the fire on program outcomes.

The list of released info includes: the estimated cost of the engineering and manufacturing development phase; the estimated per bomber unit cost; an artist's rendering of the bomber; the main subcontractors for the bomber; the estimated cost of the bomber between 2017 and 2026; and the estimated cost of nuclear modernization between 2018 and 2040, which includes the cost to add, certify, and support a nuclear capability for the bomber.

In addition, while the B-21 is deemed a special access program the specific details of which are only available to a small number of lawmakers and their staff, it is an acknowledged program with an unclassified budget request. The Air Force has divulged the contract value and total costs of other such programs, such as the service's new nuclear air-launched cruise missile program, known as the LRSO.

The case for greater public disclosure of B-21 costs is strengthened by the fact that Northrop Grumman's winning contract bid was lower than the Pentagon's estimate, raising concerns that it was unrealistic. It would not be the first time that a contractor has underbid to win a contract, only to ask for more money after they won.

Moreover, the Defense Department has a long history of underestimating how much its major aircraft acquisition programs will cost. In the 1980s, the B-2 bomber program overran its cost so badly that a mere 20 aircraft emerged from a \$40 billion program intended to buy 135 to 150 aircraft. The service also deeply underestimated the unit cost of the F-22 and F-35 aircraft.

This troubled past reinforces the need for greater oversight of key program benchmarks such as price. Divulging the value of the B-21 contract would shed greater light on whether the contract can be executed at the bid price and make it harder to avoid accountability in the event of future cost overruns.

In recent years, some members of Congress, led by Sen. McCain, have pursued legislation to bring greater transparency to and control the cost of the B-21 program. These efforts ultimately failed in the face of strong opposition by the contractor, Air Force leaders, and their supporters.

But the fight goes on. Reps. Ralph Norman, R-S.C., and Earl Blumenauer, D-Ore., have filed a bipartisan amendment to the 2019 defense authorization act that would require public disclosure of the value of the B-21 contract. The amendment could be debated and voted on later this week.

Safeguarding U.S. military technology is a national security imperative. So too is accountability to Congress and the American taxpayer. Declassifying the cost of the B-21 won't undermine U.S. security. But it would help to ensure more effective oversight of a program on which so much is riding.

<https://www.defenseone.com/ideas/2018/05/B-21-stealth-bomber-stealthy-price-tag/148372/?oref=d-topstory>

[Return to top](#)

The Conversation (Boston, Mass.)

Is It Time for Israel to Reveal the Truth about Its Chemical Weapons?

By Melanie Garson

May 21, 2018

The multilateral attack on Bashar al-Assad's chemical weapons facilities in Syria after a lethal gas attack in East Ghouta is already fading from memory, but the question it poses remains: how can the spread of chemical weapons across the Middle East be controlled? And answering that question demands scrutiny of the region's most powerful and yet most opaque military power: Israel.

Israel's chemical and biological weapons programme is shrouded in even greater secrecy than its notoriously opaque nuclear programme. Both the weapons and the secrecy around them are born of the same strategic imperative, namely to limit existential threats to the Israeli state.

The programme was initiated under Israel's first prime minister, David Ben-Gurion, who authorised it only reluctantly. Both he and subsequent leaders were wary of introducing such weapons into the Arab-Israeli conflict, fearing they might trigger a regional arms race. Nonetheless, even prior to the 1948 Arab-Israeli War, Israel initiated research into unconventional warfare through the HEMED BEIT unit, forefather of the government-controlled Israel Institute for Biological Research (IIBR).

In 2013, after the last set of international efforts to rid Syria of chemical weapons, Foreign Policy magazine published a set of CIA documents from 1983 that revealed evidence Israel had pursued a chemical weapons programme. Suddenly, attention was again focused on the IIBR – long suspected of being the research centre behind the Israeli programme.

Now, one of the foremost experts on Israel's nuclear policy and strategy, Professor Avner Cohen, has seized the opportunity to reiterate that Israel should ratify the Chemical Weapons Convention, which it signed in 1992. Since Israel has never put the treaty into effect, the exact nature of the weapons it has developed and possibly still possesses remains the subject of international speculation.

Self-defence and deterrence

As Cohen explains, the 1983 CIA documents likely evidence the remnant of a programme developed in the 1950s and 1960s. Around that time, Egypt developed chemical weapons and tested them during the Yemeni civil war. Anticipating Egypt's plans as early as 1955, Ben Gurion sought an "additional cheap non-conventional capability" that could be operationalised if hostilities with Egypt escalated. This capability was probably upgraded and maintained with assistance from

France, whose Beni Ounif chemical weapons testing range in the Algerian Sahara was visited by Israeli scientists in the 1960s.

It seems the deterrent effect may have worked in the turbulent years that followed. Despite Israel's preparations for chemical assault, experts have suggested that Egypt refrained from using chemical weapons against Israel in the 1967 Six Day War because Egypt "feared Israeli retaliation in-kind".

Although Israel acceded to the 1925 Geneva Weapons Protocol on February 29, 1969, alongside other countries with chemical stockpiles at the time such as the US, Cohen writes that the contents of its arsenal were considered unsavoury but "legitimate retaliatory weapons". Egypt long retained an advanced chemical weapons programme; it provided WMD to Syria in the early 1970s and technological assistance to Iraq in the late 70s and 80s. Saddam's Iraq also threatened Israel with chemically armed ballistic missile attacks during the First Gulf War. In this climate, there was little incentive for Israel to forgo its chemical weapons capability.

While Prime Minister Yitzhak Rabin tried to end Israel's chemical ambiguity by signing the Chemical Weapons Convention, the geopolitical realities of the size of neighbouring chemical weapons arsenals meant the Israeli establishment still believed it needed an equivalent capacity to serve as a deterrent.

The general consensus today is that while there's little evidence that Israel maintains a chemical weapons stockpile, it retains "breakout capacity" – that is, it could readily mobilise its significant scientific and technological knowledge to restart its programme.

A new world

Given its superiority in conventional weaponry and nuclear capability, it seems unlikely that Israel would deploy chemical weapons if it were attacked. However, as surrounding nations repeatedly cite this weapons capability as the reason they retain their own chemical weapons, the strategic value of an Israeli arsenal – current or potential – is clearly dubious.

The policy of ambiguity also deprives Israel of badly needed international goodwill. As Cohen highlights, had Israel ratified the Chemical Weapons Convention, it would have been able to participate in the recent strikes on Assad's weapons facilities and be seen to defend the international norm that these weapons are beyond the pale.

Globally, there are fundamental changes to the nature of war and international security. Weapons of mass destruction are giving way to weapons of mass disruption, such as cyberattacks; conventional weapons are being transformed by semi- and fully autonomous weapons. The whole notion of deterrence is being challenged, and so is the military role of high technology.

In some ways, Israel is more than ready for this. It continues to live up to Ben Gurion's vision that "science could compensate for what nature had denied", rapidly developing capacity in robotic technologies, cybersecurity and artificial intelligence. If this really is the path to security dominance in the 21st century, Israel may no longer have a need to maintain the rumours of limited and less efficient chemical weapons, and would do well to just put it all out in the open.

Perhaps the regional and domestic situation will at some point settle down sufficiently that Israel and its neighbours can start talking about making the Middle East a WMD-free zone. But until then, the question of whether Israel's policy of ambiguity is more of a hindrance than a deterrent remains open.

<https://theconversation.com/is-it-time-for-israel-to-reveal-the-truth-about-its-chemical-weapons-95604>

[Return to top](#)

The Atlantic (Washington, D.C.)

What the North Koreans Told Me about Their Plans

By Joel S. Wit

May 20, 2018

I was one of a handful of former officials to meet with them when they were just developing their current strategy. Those talks offer the best information we have about how to achieve denuclearization.

What exactly do the North Koreans mean when they say they're willing to denuclearize? And how exactly would they do so? These are the key mysteries at the heart of the upcoming Trump-Kim summit—and indeed they threatened to derail the whole thing this week when Kim Jong Un objected to National-Security Adviser John Bolton's vision for it. In a statement attributed to Vice Foreign Minister Kim Kye Gwan, North Korea chastised Bolton for his invocation of the "Libya model" of unilateral denuclearization as a template, noting that the "world knows too well that our country is neither Libya nor Iraq which have met miserable [fates]." The White House quickly walked back Bolton's remarks.

The exchange did little to clarify how the U.S. plans to achieve denuclearization. But for a group of former U.S. government officials who have been meeting with North Korean officials over the past decade, North Korea's own plans are anything but hidden. A series of meetings with North Korean officials in 2013, which I attended along with other former U.S. officials, holds valuable clues—and they show that the North Koreans have given a great deal of thought to denuclearization and almost certainly have a concrete plan of action for the upcoming summit, whether the White House does or not.

Those meetings happened five years ago, but they took place at the very beginning stages of the nuclear strategy Kim is executing to such dramatic effect now. At the time, Kim Jong Un had just enshrined his byungjin policy, stating that the North intended to develop a nuclear arsenal as a shield behind which it could modernize its economy. North Korean officials explained in these private sessions that Kim had issued the new policy after concluding that his country needed more nuclear weapons to deter the United States. It wasn't just that the North Koreans were concerned about escalating tensions in late 2012 and early 2013, as well as continuing flights of nuclear-capable U.S. bombers over the Korean Peninsula. The North Koreans also felt Washington and Seoul thought they could bully the North during the leadership transition that had begun with the death of Kim Jong Il in December 2011. One North Korean official I spoke to then said "nuclear" equaled "survival."

But other officials said that was only under "present circumstances," and their approach could change if the tense relationship between the United States and North Korea improved. That might explain a puzzling move by the North in June 2013, when the the National Defense Commission—the top government body in Pyongyang chaired by Kim—issued an important new pronouncement that it was open to negotiations on denuclearization. The Obama administration dismissed it at the time as propaganda. But a senior North Korean diplomat told a member of the American delegation that he himself was surprised Pyongyang was speaking of denuclearization again—especially after it had taken the issue off the table not long before.

At the meetings I attended, North Korean officials were emphatic that the pronouncement came from Kim Jong Un himself, and that it reflected his commitment to improving relations with the United States. They emphasized repeatedly that denuclearization could be on the agenda of bilateral talks with the United States, or even multilateral discussions such as the Six Party Talks that had been adjourned in 2008. That position showed a welcome flexibility—it seemed to mean

the denuclearization offer wasn't just a ploy to divide the Americans from their allies by getting them alone in the negotiating room. But it was also a reflection of North Korean self-interest; a more sympathetic China in the room could counter-balance the Americans. The North Korean officials only had one condition: The United States should not set preconditions, such as requiring the North to stop nuclear and missile tests, for negotiations to take place. They said they were, however, willing to take such steps once talks resumed.

Nevertheless, the North Korean proposal was difficult for the United States government to swallow. The Obama administration felt burned by the collapse of the February 2012 "Leap Day Deal," which Washington had hoped would stop nuclear and missile testing, but which was soon followed by a North Korean launch of a satellite into space with a long-range rocket. Throughout 2013, the Obama administration, with the help of President Xi Jinping of China, tried to quietly revive talks, but only if North Korea met preconditions that demonstrated it was, as administration officials often stated publicly, "sincere" about denuclearization. Because Pyongyang would not meet them, Chinese shuttle diplomacy failed. And Pyongyang's view was never fully explored.

Of course, talk is cheap. Maybe the North Korean government pronouncement on denuclearization was just a ploy, although any seasoned analyst of Pyongyang's policies would note that its government statements are not issued lightly. And indeed, in the private meetings, the North Korean officials actually laid out a concrete plan to achieve denuclearization.

Not surprisingly, for the North Koreans the key to denuclearization was that the United States had to end its "hostile policy." That demand sounds vague to many Americans, but in fact, the North Koreans have made it quite clear on a number of occasions what ending a "hostile policy" would entail: stopping political, security, and economic confrontation in return for eliminating their nuclear weapons. The "political" part means U.S. recognition of North Korea as a sovereign state through establishing diplomatic relations between the two countries. (As the North Koreans pointed out, theirs is one of the few states in the international community that the U.S. has never recognized, which they see as a clear sign of its true intention to overthrow the regime.) The security part would involve ending the state of war that has existed on the Korean Peninsula since the 1950s by replacing the temporary armistice agreement ending the Korean War with a permanent peace treaty. Finally, the economic part would consist of lifting trade restrictions and sanctions imposed on the North over the decades since the Korean War.

The North Koreans saw all these elements being integrated into a phased approach. In each phase, the two sides would take simultaneous steps leading to the final outcome: the end of hostility and denuclearization. The North Koreans visualized a straightforward three-stage process for their own side of the equation—freezing their nuclear program, disabling key facilities, and finally dismantling not only those facilities but their nuclear weapons as well.

The North Korean plan was encouraging but there were potential problems. First, to get the process rolling, the North Koreans wanted the United States to declare up front all the steps it was willing to take during each phase of denuclearization to show its intention to remove its "hostile policy." In return, the North would initially freeze its nuclear program. However, when the American delegation explained that such a declaration would be problematic, since it would require that the United States lay out all the steps it was willing to take without the North doing the same, the North Koreans indicated they would be willing to consider a bilateral declaration of reciprocal commitments. (In fact, that sounds like an ideal outcome for the upcoming Trump-Kim summit.)

Second, North Korean willingness to consider an initial freeze on all of its nuclear capabilities—not just testing but also production of bomb-making material—was intriguing but raised other problems. Such a freeze would be a big step forward, since it would prevent the North from producing more weapons-grade material and help set the stage for dismantling its weapons. But it

would also require extensive on-site measures to verify that the North wasn't hiding any facilities that could help produce new bombs. When the American team raised verification requirements, the North Koreans acknowledged that this would be a big problem, and noted "we are going to need a creative approach, because just saying it's a problem isn't going to be helpful." Indeed, previous negotiations during the Bush administration had foundered over Pyongyang's unwillingness to accept such measures.

During the 2013 meetings, the North Korean officials also insisted that denuclearization should require the U.S. to end its nuclear umbrella protecting South Korea and withdraw American troops from the peninsula once a peace treaty was concluded. But the North Koreans seemed to grasp the reality that such a demand would be completely unacceptable to both the United States and South Korea and would halt talks in their tracks. Indeed, the North has on more than one occasion, including very recently, seemed to back off this demand.

True, this glimpse of Pyongyang's denuclearization game plan is now five years old—and the North's nuclear capabilities have advanced significantly in the meantime. More recent efforts to discuss that plan again in private with them have failed, perhaps because the North Koreans were anticipating discussions with the Trump administration and did not want to tip their negotiating hand. The 2013 plan may have been subject to some revision. In fact, the North Koreans have already deviated from it, albeit in a positive direction from the U.S. perspective: They have taken unilateral steps—halting nuclear and missile testing as well as pledging to dismantle their nuclear test site—that seemed implausible five years ago.

In any case, the proposal the North Koreans offered then still gives the clearest picture we have to date of what they might want from the upcoming negotiations. And what they outlined was a step-by-step process of denuclearization accompanied in each phase by U.S. measures of their own. It is entirely different from the "Libya model" espoused by John Bolton, which involves giving up its program first and only then getting benefits in return. Indeed, the Trump administration doesn't necessarily endorse Bolton's view. Susan Thornton, the acting assistant secretary of state in charge of Asia, said last week that it was obvious there would be multiple steps in a long process of denuclearization, and the key issue was what happened first.

How those differences over denuclearization are resolved inside the Trump administration, and whether common ground can be found with the North Koreans, will determine the future of the Korean Peninsula. The stakes are nothing less than the success or failure of the world's best current chance to disarm North Korea. The Thornton approach could mean, over the long term, that it really happens. The Bolton approach would assure that it won't.

<https://www.theatlantic.com/international/archive/2018/05/north-korea-denuclearization/560774/>

[Return to top](#)

ABOUT THE USAF CSDS

The USAF Counterproliferation Center 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 Director for Nuclear and Counterproliferation (then AF/XON), now AF/A5XP) and Air War College Commandant established the initial manpower 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.

The Secretary of Defense's Task Force on Nuclear Weapons Management released a report in 2008 that 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." As a result, 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 continuing education through the careers of those Air Force personnel working in or supporting the nuclear enterprise. This mission was transferred to the Counterproliferation Center in 2012, broadening its mandate to providing education and research to not just countering WMD but also nuclear deterrence.

In February 2014, the Center's name was changed to the Center for Unconventional Weapons Studies 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.

The CSDS (now the Center for Strategic Deterrence Studies) 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.

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