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## Feature Report

***“Understanding Deterrence”***. By Michael J. Mazarr. Published by RAND; 2018

<https://www.rand.org/pubs/perspectives/PE295.html>

The challenge of deterrence — discouraging states from taking unwanted actions, especially military aggression — has again become a principal theme in U.S. defense policy. Because many potential adversaries are significantly more capable than they were a decade or more ago, moreover, the risks of actually fighting a major war are more significant than ever — making it even more imperative to deter conflict. Yet much of the emerging dialogue on deterrence remains characterized by unsupported assertions, claims that contradict the empirical record, and little reference to classic analyses. Meanwhile, changes in the international security environment have altered the context for deterrence, possibly challenging long-held assumptions and creating new requirements. This Perspective draws on a range of recent and classic RAND Corporation studies to revisit fundamental concepts and principles about deterrence. The most important overarching lesson of this review is that deterrence and dissuasion must be conceived primarily as an effort to shape the thinking of a potential aggressor. Any strategy to prevent aggression must begin with an assessment of the interests, motives, and imperatives of the potential aggressor, including its theory of deterrence (taking into account what it values and why). Deterrence turns out to be about much more than merely threatening a potential adversary: It demands the nuanced shaping of perceptions so that an adversary sees the alternatives to aggression as more attractive than war.

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The treaty, which was signed in 1992 and went into effect in 2002, has 34 state parties. 32 of these member states are in Europe and include Russia.
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U.S. nuclear deterrence, however, hinges on the assumption that adversaries believe that the United States has a functioning stockpile of nuclear weapons that can and will be used.

# NUCLEAR WEAPONS

The Diplomat (Tokyo, Japan)

## Russia Kicks Off Annual Nuclear Forces Readiness Exercise

By Franz-Stefan Gady

Oct. 15, 2019

The Russian nuclear forces have today begun their annual readiness exercise, dubbed “Grom [Thunder] 2019,” which will involve 12,000 troops, 213 intercontinental-range ballistic missile launchers, up to 105 aircraft and around 20 warships, according to the Russian Ministry of Defense (MoD).

The exercise will take place from October 15 to 17 in all five military districts across Russia including the Western, Southern, Central and Eastern districts, as well as in Barents, Baltic, Black, Caspian, and Okhotsk seas adjacent to Russian territorial waters involving the Northern Fleet. Five nuclear-powered ballistic missile submarines and five strategic bombers are expected to take part in the two-day drill.

During the exercise, the Russian military will test fire 16 cruise and ballistic missiles, according to the head of the Russian Ministry of Defense’s (MoD) Main Department for International Military Cooperation, Major General Yevgeny Ilyin.

“The drills envisage 16 test-launches of cruise and ballistic missiles. Ten aerodromes across the country will be used for aircraft operations,” he was quoted as saying by the MoD on October 14.

“Two RSM-50 [NATO reporting name: SS-N-18 Stingray] ballistic missiles will be launched towards the Chizha firing range. Also, a Yars intercontinental ballistic missile (SS-29) and a Sineva ballistic missile (SS-N-23) will be fired towards the Kura practice range,” the general said.

The SS-N-18 Stingray is a submarine-launched ballistic missile (SLBM) carried by the Soviet-era Project 667BDR Kal’mar (Squid) Delta-III or Project 667 BDRM Delta IV-class nuclear-powered ballistic missile submarines (SSBN). The R-29RMU Sineva is also a SLBM designed to be launched from Delta IV SSBNs.

The SS-29 (aka Topol MR/RS-24 Yars) is a road-mobile ICBM and reportedly entered service in 2010. It is a three-stage solid fueled ICBM, with an estimated range of over 10,000 kilometers, and can deploy active and passive decoys. It is capable of carrying three to six multiple independently targetable reentry vehicles (MIRVs).

The exercise does not include Russia’s newest SSBN armed with its most advanced SLBM, the Project 955 Borei-class (“North Wind”) aka Dolgoruky-class carrying the Bulava RSM-56 (NATO reporting name: SS-N-30) ICBM — a sea-based variant of the Topol-M — capable of carrying up to ten warheads.

Last year’s exercise did not involve the launch of ICBMs. The year before, the Strategic Rocket Force fired four SS-27 ICBMs from the Plesetsk space center located in Arkhangelsk Oblast.

It appears unlikely that the ICBMs were deliberately excluded from last year’s exercise given the centrality of ground-launched nuclear assets in Russian nuclear doctrine. There has been speculation that ICBM participation was cancelled following a failed missile launch.

The exercise will also involve testing Russian nuclear command and control systems.

In September, the Russian MoD officially declared 1426 deployed warheads, 513 deployed launchers, and 757 total launchers according to data exchanged between the U.S. and Russia under New START.

<https://thediplomat.com/2019/10/russia-kicks-off-annual-nuclear-forces-readiness-exercise/>

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Navy Times (Vienna, Va.)

### **Bird Strike Grounds Navy 'Doomsday' Aircraft**

By Courtney Mabeus

Oct. 17, 2019

A Navy doomsday aircraft was temporarily grounded after it struck a bird during a touch and go landing earlier this month, Navy officials said.

The E-6B Mercury aircraft, assigned to Air Test and Evaluation Squadron 20 at Maryland-based Naval Air Station Patuxent River, suffered at least \$2 million in damages after it sucked a bird into one of its four engines during the Oct. 2 landing. A test and evaluation team was aboard at the time conducting a system test, Tim Boulay, a spokesman for Naval Air Warfare Center Aircraft Division said. No one on the aircraft was injured. It's unclear what species of bird was involved.

"We don't know for sure," Boulay said in an email.

The "Class A" mishap, signaling more than \$2 million damages, death or permanent disability, was the first aviation incident of the fiscal year that began Oct. 1, according to Naval Safety Center records.

Boulay said engine has been replaced and the aircraft has returned to service. The incident is under investigation.

The \$141 million Mercury aircraft plays a key role in the Navy's "Take Charge and Move Out," or TACAMO, mission.

The aircraft serves as an airborne command and control post, and connects the nuclear triad of "boomer" submarines, Air Force strategic bombers and LGM-30G Minuteman III intercontinental ballistic missile crews, to the president and defense secretary.

The Oct. 2 incident was one of five class A mishaps involving a bird strike in the last decade, including another E-6B in 2018, according to Safety Center data. Other aircraft involved included an F-35B, a T-45C Goshawk trainer jet and a Marine AH-1W attack helicopter.

<https://www.navytimes.com/news/your-navy/2019/10/17/bird-strike-grounds-navy-doomsday-aircraft/>

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Aiken Standard (Aiken, S.C.)

## **U.S. Supreme Court Will Not Hear S.C. Plutonium, MOX Case**

By Colin Demarest

Oct. 15, 2019

The U.S. Supreme Court will not hear a case tied to the long-term storage of plutonium in South Carolina, the federal rules surrounding it, and the relatively recent death of the Mixed Oxide Fuel Fabrication Facility, a never-finished nuclear fuel facility at the Savannah River Site.

The Supreme Court on Tuesday morning released its latest order list, which lays out appeals justices have privately conferenced and what matters the court will and will not take up. Docket No. 18-1531, South Carolina's plutonium case, was not selected.

The court offered no further comment. That's not unusual.

The denial from the high court seemingly serves as the final nail in the MOX coffin and signals South Carolina has exhausted its options. Any hope of reviving the MOX project is effectively dashed.

The Palmetto State, led by S.C. Attorney General Alan Wilson, in June petitioned the Supreme Court to examine a federal court ruling that the state lacked grounds to challenge the U.S. Department of Energy's MOX-killing procedures and the department's decision to move forward with another plutonium disposition method, dilute-and-dispose.

In a statement Tuesday, Wilson said the Supreme Court's decision to not hear the case was disappointing.

The court receives upward of 8,000 petitions each term — October through June or July. Only about 80 of those petitions are granted and heard.

South Carolina's initial petition detailed four "compelling reasons" why the Supreme Court should pay attention: purported conflict with several other established legal cases, conflict between other circuit courts, "constitutional issues" in regard to states' interests, and an opportunity to clarify another ruling.

Wilson in April said the state's legal team was deliberating a Supreme Court appeal.

"I only mentioned it here to let them know that it's a long shot, but it's still a possibility for us to do," he said at the time, referencing the 60 or so people who had gathered for his talk at Newberry Hall in downtown Aiken.

Pit production important for U.S. and Aiken region, retired Navy vice admiral says

In July, U.S. Sen. Lindsey Graham, the South Carolina Republican heading up the powerful Senate Judiciary Committee, urged the Supreme Court to take the case.

"The federal government previously made legally binding commitments to the state of South Carolina in recognition of its sovereign status and its proprietary interests," reads his court-filed brief. "It has now breached those commitments, causing injury to the state that a court may redress."

MOX, the product of an 2000s-era international pact, was designed to turn at least 34 metric tons of weapons-grade plutonium into fuel for commercial reactors. The project was more than a decade in the making — past due, over budget and the subject of repeat congressional scrutiny — when it was axed in late 2018 by the National Nuclear Security Administration, a semiautonomous Energy Department weapons-and-nonproliferation agency.

The MOX project was terminated five months after U.S. Secretary of Energy Rick Perry notified Congress of his intent to do so and one day after the 4th U.S. Circuit Court of Appeals lifted an injunction shielding MOX construction and other related activities.

MOX employed more than 1,000 people at the time of its death. Project workers were laid off in waves.

The Energy Department had previously argued that keeping the halting project alive — on life support, essentially — cost taxpayers about \$1.2 million a day.

South Carolina officials, in contrast, have long argued that ending the MOX venture would render the state a nuclear dumping ground.

Wilson on Tuesday promised to fight and not let that happen.

"Even though it has abandoned its commitment to build the MOX facility, they must still comply with federal law requiring the removal of plutonium from South Carolina — an issue the state has litigated and prevailed on," the attorney general said. "We will continue to do everything necessary to protect the citizens of our state and hold the federal government accountable under the law."

Metric tons of plutonium, only some of which were destined for MOX, remain at the Savannah River Site, about 30 minutes south of Aiken. The plutonium is kept at K-Area, a reworked and retrofitted reactor facility.

A total 1 metric ton of weapons-grade plutonium was moved out of South Carolina earlier this year, satisfying a separate federal court order.

[https://www.aikenstandard.com/news/u-s-supreme-court-will-not-hear-s-c-plutonium/article\\_cd400cc4-ef4b-11e9-bf12-6fbf4f124ead.html](https://www.aikenstandard.com/news/u-s-supreme-court-will-not-hear-s-c-plutonium/article_cd400cc4-ef4b-11e9-bf12-6fbf4f124ead.html)

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## US COUNTER-WMD

Defense News (Washington, D.C.)

### **Here's Who Will Build the Army's New Missile Defense Radar**

By Jen Judson

Oct. 17, 2019

WASHINGTON — Incumbent Raytheon will build the Army's new missile defense radar to replace the Patriot air-and-missile defense system's current radar as part of the service's future Integrated Air-and-Missile Defense System.

The company has taken its years of experience refining Gallium Nitride (GaN) technology in its own Massachusetts-based foundry and designed a new radar system that will provide the Army 360-degree threat detection capability in a configuration that includes one large array in the front and two smaller arrays in the back.

The contract is worth roughly \$384 million to deliver six production-representative units of the Lower Tier Air-and-Missile Defense Sensor (LTAMDS).

“Our clean-sheet approach to LTAMDS reinforces Raytheon’s position as the world’s premier air and missile defense radar capability provider,” Ralph Acaba, president of Raytheon Integrated Defense Systems, said in a statement.

The service held a “sense-off” at White Sands Missile Range, New Mexico, between three working radars from Raytheon, a Lockheed Martin and Elta Systems team, and Northrop Grumman earlier this year. The service analyzed the results and was in contract negotiations with the winner as the Association of the U.S. Army’s annual show kicked off Oct. 14.

Brig. Gen. Brian Gibson, who is in charge of the service’s AMD modernization efforts, told Defense News in an interview ahead of the show that negotiations were ongoing and that the award would happen soon.

Without public knowledge of the win, Raytheon brought its offering for the LTAMDS competition to the show and passed out red lanyards advertising LTAMDS that said “No time for a blind spot.”

The Army could choose a winner to build prototype radars for its Integrated Air-and-Missile Defense System as soon as next month.

Replacing the Patriot radar has been a long time coming. The radar was first fielded in the 1980s, and the Army previously attempted to replace the system with Lockheed Martin’s Medium Extended Air Defense System through an international co-development effort with Germany and Italy. But that program was canceled in the U.S. after closing out a proof-of-concept phase roughly six years ago.

Since then, the Army has studied and debated how to replace the Patriot radar while Raytheon continues to upgrade its radar to keep pace with current threats. The service has acknowledged that there will come a point where radar upgrades will be unable to keep up with future threats.

Taking years to decide, the service moved forward on a competition to replace the radar in 2017 and chose four companies to come up with design concepts for the capability — Raytheon, Lockheed Martin, Northrop Grumman and Technovative Applications.

Toward the end of 2018, Raytheon and Lockheed were chosen to continue technology development under that program. But then the Army redirected its plans into a sense-off competition last fall.

Raytheon will be expected to build six prototypes by the end of fiscal 2022.

The radar that Raytheon specifically designed for the Army uses next-generation GaN and is 7 feet longer but 11 inches more narrow than the current radar unit. But it no longer requires outrigger stabilizing legs. Rather, the system is held stable by jacks underneath, which means it takes up less space on the sides, according to Bob Kelley, Raytheon’s director of domestic integrated air and missile defense programs for business development and strategy.

The radar meets all of the Army’s mobility and transport requirements, Kelley said, including fitting in a C-17 aircraft.

The smaller arrays are about 50 percent of the size of the legacy Patriot system’s array, but are twice as capable due to the advancements with GaN technology, he added.

Though the Army backed off its 360-degree detection capability requirement for the competition, Raytheon has been steadfast about keeping that capability in its offering.

In addition to being able to constantly cover 360 degrees, the radar can see farther than the currently fielded Patriot. That radar is unable to fully support the maximum kinematic range of the Patriot Advanced Capability-3 Missile Segment Enhancement that it fires. The Army claims that its

effort to tie the Terminal High Altitude Area Defense System with Patriot would help the MSE missile reach its full potential.

The LTAMDS will be able to fully support current missile systems including PAC-3 MSE range capability and will also support future missile ranges as well, Kelley said.

<https://www.defensenews.com/breaking-news/2019/10/17/heres-who-will-build-the-armys-new-missile-defense-radar/>

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C4ISRNET (Vienna, Va.)

## **New Missile Warning Satellites Pass Design Test**

By Nathan Strout

Oct. 11, 2019

The Air Force's next generation early warning missile defense satellite passed a preliminary design review, the service announced Oct. 10.

Next Generation Overhead Persistent Infrared system is being built to replace the Space-Based Infrared System, a crucial part of the nation's missile defense architecture. The Space and Missile Systems Center has awarded contracts for five Next Gen OPIR satellites: three in geosynchronous orbit and two covering the polar regions. Lockheed Martin was selected to build the former while Northrop Grumman was selected to build the latter.

The Air Force's Space and Missile Systems Center announced Oct. 10 the three geosynchronous satellites had completed preliminary design review, which included reviews of both the system/ground and the space vehicle on Sept. 27.

"The combined government and contractor team has demonstrated its ability to move with deliberate speed over the past 18 months while maintaining the technical and programmatic rigor needed to ensure success. I am pleased with the progress we have made and look forward to the remainder of the PDR campaign over the next year," Col. Dennis Bythewood, SMC's program executive officer for space development, said in a press release.

According to the Air Force, the review is a major milestone and means the program is on track for a 2025 delivery.

The first three Next Gen OPIR satellites will use an enhanced Lockheed Martin 2100 common satellite bus. According to the Air Force, those enhancements include "elimination of obsolescence and insertion of modern electronics in multiple subsystems, as well as increased resiliency capabilities that are all applicable to the Next Gen OPIR mission."

The Air Force has accelerated the timeline for Next Gen OPIR to get the first satellite delivered in 2025. That's required more money up front than initially expected. The Air Force has worked to move the needed money to the program through reprogramming requests, a source of division between competing versions of the annual defense budgets in the House and Senate. But SMC credited that reprogramming with keeping Next Gen OPIR on track.

"While the program acceleration to meet this threat head-on created a near-term funding shortfall, Congress's support of the DoD's \$161M reprogramming request has kept the program on-track and I am confident we will close the remaining shortfall in FY20 to enable delivery of our first satellite in 2025," said Bythewood.

With the preliminary design review complete, the program can move forward with “the build and integration of engineering design units for critical subsystems and procurement of critical long-lead flight hardware for a 2025 first Space Vehicle delivery,” said Col. Ricky Hunt, the space segment program manager for Next Gen OPIR. “These [units] are key enablers to demonstrate subsystem capabilities and exercise key integration activities that will burn down program risk before the space flight hardware is delivered.

<https://www.c4isrnet.com/battlefield-tech/space/2019/10/11/new-missile-warning-satellites-pass-design-test/>

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Defense News (Washington, D.C.)

## **Major Missile Defense Command System Heads toward a Critical Test**

By Jen Judson

Oct. 14, 2019

WASHINGTON — The U.S. Army’s major missile defense command-and-control system is headed toward a critical test in 2020 that is essentially a redo after the system was unsuccessful in its first attempt at entering production in 2016.

The Integrated Battle Command System, or IBCS — the brains of the Army’s Integrated Air and Missile Defense System — is critical to the success of the service’s future layered air-and-missile defense mission. The goal is to tie any radar, sensor or shooter into the IBCS to create an intricate web of capability to go after a wide variety of current and emerging threats.

The program’s past is plagued with failures and schedule delays, but in recent years the system saw several successes, teasing out the potential of such a capability if all goes well.

Software problems discovered during the Army’s first limited-user test of the system in 2016 resulted in schedule delays of nearly four years. The Army originally planned to reach initial operational capability in fiscal 2019, but those plans slipped to the third quarter of FY22, according to FY18 budget documents.

“The intent for the program remains pure and the approach to try to get unbridled, uncoupled weapons systems that really seek to maximize the combination of mission command sensors and shooters in a different way,” Brig. Gen. Brian Gibson, who is in charge of air and missile defense modernization for the Army, told Defense News in an interview shortly before the Association of the U.S. Army’s annual conference.

“IBCS requirements have stayed valid since 2016,” he said, noting the failed limited-user test caused the Army to reset the baseline of the program, though the requirements stayed the same. “We didn’t fail because of the requirements the first time; we failed because of technical feasibility of where the product was at the time. Really, it was a stability issue.”

The Army’s second attempt is expected to happen roughly around the beginning of the third quarter of the fiscal year, Gibson said. That will allow the Army to analyze the results and then make a production decision for IBCS.

Gibson is confident that the limited-user test will be successful due to recent test events including demonstrating the F-35 Joint Strike Fighter’s ability to send data to the IBCS system during the Orange Flag Evaluation 19-2 at Palmdale, California, and Fort Bliss, Texas, in June.

Recent soldier checkouts used to prepare IBCS for the limited-user test have also been declared a success.

The Army is getting ready for another test in December “where we seek to up the ante,” Gibson said. “Sort of our final test before we move forward going into the limited-user test next year. That test will have a broader range of threats from ballistic missiles and cruise missiles and air-breathing threats for us to counter. We will also integrate some joint air assets.”

“I think the success in our testing program, other than the traditional developmental tests and operational tests ... that’s been a very positive outcome on this road since the failed one,” Gibson said.

Additionally, IBCS has been designated, among just a few programs and with congressional direction, to adopt an agile software-development process that allows the system to be frequently updated with software upgrades or patches, as opposed to big software drops that potentially happen only once a year.

“So you get a more agile development framework and a more adaptive and flexible and responsive work outcome to then allow the Army to decide on a faster timeline whether to make changes or not,” Gibson said. “I think it really puts the program at a different place than where it was when we failed the [limited-user test].”

While the Army is attempting to speed up the schedule to get to an initial fielding of IBCS, the Defense Department’s Office of Inspector General recently released a report that expressed concern that there might not be enough time between the end of the limited-user test and the scheduled Milestone C production decision to analyze the data and address potential issues.

“That’s a future decision in front of us,” Gibson said. “We certainly are going to wait and assess and report and analyze our performance in the [limited-user test]. And regardless of what the program says today and what we’ve told people, we certainly are not going to shortsight our assessment of whether or not this program met the threshold requirements we are trying to meet.”

If that means the Army has to consider a slip in the schedule “by a week, a month, two months, three months,” the service will do so if the limited-user test shows there is reason to, according to Gibson.

“Given where this program has been, that’s important to make sure we’re confident where it’s at,” he said, “But secondly, this program fundamentally changes our air and missile defense force, so we better make sure how we employ that force, we better make sure that we are confident to proceed. This isn’t [the] time for a quick decision.”

<https://www.defensenews.com/digital-show-dailies/ausa/2019/10/14/major-missile-defense-command-system-heads-toward-a-critical-test/>

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# US ARMS CONTROL

Middlebury Institute (Monterey, Calif.)

## **‘I Like Difficult Questions’ Russian Ambassador Tells Simulation Class**

By Eva Gudbergsdottir

Oct. 10, 2019

Students in Dr. William Potter’s NPT Negotiation Simulation class spend the fall semester immersed in the intricacies of international arms control negotiations through a simulation of the 2020 NPT Review Conference. On Tuesday, October 8th, the class had the opportunity to engage directly with Ambassador to the United States Anatoly Antonov, who formerly headed a number of Russian NPT delegations.

In addition to students from Dr. Potter’s class, other students in the Dual Degree in Nonproliferation and Terrorism Studies with Moscow State Institute of International Relations (MGIMO) attended the class session. Before being appointed Ambassador to the U.S. in August 2017, Antonov served as Deputy Defense Minister, Deputy Foreign Minister, and chief Russian negotiator of the New Treaty of Strategic Offensive Arms Reductions (New START). This was Ambassador Antonov’s third visit to the Middlebury Institute campus.

Dr. Potter, founding director of the Institute’s James Martin Center for Nonproliferation Studies and Ambassador Antonov have known each other for over a quarter of a century. At the beginning of the class session he remarked that more than half of the students in the seminar room are Russian speakers, and that as “U.S. Russia relations continue to erode,” they are our “best hope for the future.”

“Every morning when I wake up and read the newspaper I am scared to see what treaty the U.S. is leaving,” Ambassador Antonov told the students and added that just that day the U.S. had announced it might well pull out of the Open Skies Treaty. He said that he believed the unilateral withdrawal of the U.S. from the Intermediate-Range Nuclear Forces (INF) Treaty was “a disaster for the security of all countries in the world.” It is very easy to destroy treaties, he said, but very difficult to reach consensus in negotiations. “We are against the destruction of the JCPOA,” he said of the Joint Comprehensive Plan of Action, more commonly known as the Iran Nuclear Deal. “The only reason why the U.S. administration did not like it was because it was established by the previous administration.”

The New START treaty, signed by Presidents Obama and Medvedev in 2011, will expire in February of 2021. There is an option to extend it until 2026, but the Trump administration has suggested it would let the treaty lapse. When asked what would happen if there were no longer any arms control treaties, Antonov told the students they were “too young to be so pessimistic.” Then he told them that “we could survive without a START treaty. We are a responsible state and we are a predictable state, and it is very clear where we are going.” The same, he said, could not be said of the U.S. today. It is his opinion that START should be extended and that it would be very dangerous if the U.S. and Russia stopped talking.

“We would like to stabilize relations between Russia and the U.S.” Russian Ambassador to the U.S. Dr. Anatoly Antonov told students in the Dr. Potter’s NPT Negotiation Simulation class.

“We would like to stabilize relations between Russia and the U.S.” Antonov told the students and said that there has been some progress in several areas, such as on strategic stability, on Afghanistan, North Korea, and Syria. He shared some frustrations about U.S. policy in relation to

Venezuela and remarked that they are “waiting for who will replace Mr. Volker to continue discussions about Ukraine,” referring to Kurt Volker who until recently served as U.S. Special Representative for Ukraine. “Of course, there are a lot of irritants,” he admitted, and said that he is unable to get visas for technical staff to work at the embassy and he cannot even bring a team out to assess needs for renovating his residence in Washington D.C.

Offering students advice on how to conduct international negotiations, Antonov said it was most important to respect your opponent and to be patient. “Sometimes inside I am furious, but it is always important to remain calm. If I am failing to persuade you, it means I am failing in my argument.” Representing the Russian Federation he obviously always has to protect the interests of his country, but he said it is important to always keeps in mind that everyone at the table has equal rights, and “we have to treat each other accordingly.”

At the end of the session, California State Senator Bill Monning, a former faculty member at the Institute, thanked Ambassador Antonov for his support of nuclear nonproliferation and engagement with the Middlebury Institute of International Studies and the James Martin Center for Nonproliferation Studies.

<https://www.middlebury.edu/institute/news/i-difficult-questions-russian-ambassador-tells-simulation-class>

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Al-Monitor (Washington, D.C.)

## **Majority of Iranians Now Want to Quit Nuclear Deal**

By Barbara Slavin

Oct. 16, 2019

A majority of Iranians no longer supports the 2015 nuclear deal, thinks their country should withdraw and believes that the United States has done the maximum damage it can inflict on the Iranian economy.

The findings are from a series of new polls of Iranian public opinion conducted by the Center for International and Security Studies at Maryland and IranPoll, a Toronto-based body, which have done numerous similar studies in the past. Interviews of about 1,000 people were conducted by telephone in April, May, late August and early October with a margin of error of plus or minus 3.1 percentage points for each.

While skepticism is always in order when it comes to polls in authoritarian countries, the surveys are interesting for the trend lines they reflect. Most striking is the collapse of support for the Joint Comprehensive Plan of Action (JCPOA), the landmark multilateral agreement reached in 2015 under which Iran accepted curbs on its nuclear program in return for sanctions relief and other economic benefits.

Approval of the deal peaked in August 2015 when more than 85% of Iranians backed it, according to the center’s polling at the time. That figure has been cut in half, to just 42% — with only 12% now saying they strongly support the pact. Nearly 59% say Iran should quit the JCPOA now that the United States has withdrawn and Europe has seemingly proved incapable of circumventing US secondary sanctions and providing Iran with the benefits promised under the deal.

Kurdish deal with Syrian regime against Turkey a boon for Iran

At the same time, three-quarters of those polled said they would support new talks with the United States in a multilateral framework if Washington returns to comply with the JCPOA. A slight majority of 51% would negotiate with the US one-on-one. This appears to mirror Iranian President Hassan Rouhani's refusal to talk to US President Donald Trump unless the United States first lifts sanctions the Trump administration reimposed starting in 2018.

Three-quarters of Iranians support their country's continued adherence to the half-century-old Treaty on the Non-Proliferation of Nuclear Weapons (NPT), under which Iran is allowed to have a peaceful nuclear program but not nuclear weapons. Iran flirted with the idea of quitting the NPT this past spring but has since reiterated its rejection of nuclear weapons. Tehran asserts that its moves to exceed limits on its nuclear program specified in the JCPOA are justified by other parties' noncompliance.

Iranian insistence on their right to the peaceful use of nuclear energy is clear. Nearly three-quarters of those polled in October 2019 said that Iran should reject any new agreement that would require it to give up enriching uranium on Iranian soil. This issue was long a sticking point in negotiations and it was only after the Barack Obama administration accepted limited enrichment by Iran that it was able to make progress toward a deal.

Iranians also appear to oppose a new agreement that would extend curbs on Iran's nuclear program that are due to begin expiring in 2024. A majority of 58% said Iran should not agree to such extensions in return for sanctions relief.

Iranians remain pessimistic about the state of their economy but the gloom has fallen slightly from nearly 72% in an April 2018 poll to just under 68% in October. A small majority of 53.6% believes that economic conditions are getting worse compared to 64% who felt that way in April 2018, when the US intention to quit the deal was announced. This appears to reflect the fact that Iran's economy has absorbed the new sanctions and that the currency, the rial, has appreciated slightly against the US dollar after losing much of its value over the past two years.

Perhaps because of the currency's fall, more Iranians now cite inflation as the country's biggest problem, rather than unemployment, which many have listed as their main concern in the past. The Rouhani government managed to reduce inflation to single digits in its first term, but inflation is back above 40% and many Iranians, particularly in the middle class, have seen their standard of living drop sharply.

Echoing their government's stress on an "economy of resistance," a large majority of 69% said Iran should strive to achieve economic self-sufficiency, up from 53% five years ago. More than 63% of those polled believe the United States has done the most damage it can to Iran in terms of sanctions.

The polls also looked at Iranian attitudes toward foreign countries and their own political figures. Not surprisingly, the US government hit rock bottom, with only 13% expressing approval compared to more than 31% in August 2015, shortly after the JCPOA was concluded. Japan is the most popular foreign country, with more than 70% approval, followed by China (58%), Russia (57%) and Germany (54%).

Among Iranian officials, both Rouhani and Foreign Minister Mohammad Javad Zarif, the chief negotiator of the JCPOA, have seen their popularity slip. About 42% of Iranians express approval for their president, but only 11% are very favorable compared to 61% who felt that way in August 2015.

Zarif was also at his most favorable in 2015, with 56% strongly backing him compared to 26.6% now. Overall, however, Zarif still has a 67% approval rating.

Qasem Suleimani, commander of the Islamic Revolutionary Guard Corps' elite Quds Force, is at 81% popularity (nearly 59% of respondents strongly support him). Conservative Ebrahim Raisi, who lost to Rouhani in the 2017 elections and is now head of the judiciary and a possible successor to Supreme Leader Ayatollah Ali Khamenei, has exceeded Rouhani in popularity according to the new polls, with nearly 64% approval and 28% strong approval.

<https://www.al-monitor.com/pulse/originals/2019/10/iran-poll-majority-exit-nuclear-deal-jcpoa.html>

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VOA (Washington, D.C.)

## **US Ambassador: N. Korea Asked for 'Everything' While Offering Nothing**

By William Gallo

Oct. 14, 2019

SEOUL - North Korea is demanding that the U.S. "do everything" before Pyongyang makes any concessions, Harry Harris, the U.S. Ambassador to South Korea, said in an interview published Monday.

Harris' comments to South Korea's Dong-A-Ilbo newspaper are the first substantive reaction by a U.S. official since North Korea walked away from working-level nuclear talks late last week and blamed the U.S. for the breakdown.

While noting he was not present at the negotiations held in the capital of Sweden, Harris suggested that North Korea, not the U.S., was to blame for the impasse.

"In my view, North Korea demanded that the United States do everything before doing anything," Harris was quoted as saying. He did not elaborate.

The U.S. State Department previously insisted the discussions went "good," and pushed back against North Korea's accusation that U.S. negotiators failed to bring any new ideas to the talks.

North Korea has since threatened to resume long-range ballistic missile or nuclear tests and reiterated its end-of-year deadline for the U.S. to take a more flexible approach.

In the interview, conducted Friday, Harris downplayed the importance of the deadline, calling it "artificially set" by North Korea.

"The U.S. still wants to keep up the dialogue" and figure out how to implement the declaration signed by U.S. President Donald Trump and North Korean leader Kim Jong Un in Singapore in June 2018, Harris said. But whether that happens "depends on North Korea," he added.

Trump has met Kim two other times since Singapore, and has recently said he is open to a fourth meeting.

But Trump has not set a timeline for such a summit, Harris said, adding: "We think it is better to have serious working level talks."

"(Harris) also said yes when asked if his comment means that Washington would not pursue a summit with the North before they see progress in working-level talks," the report noted.

Talks have been stalled since February, when Trump walked away abruptly from a meeting with Kim in Hanoi, Vietnam. At that meeting, Trump rejected Kim's offer to dismantle a key nuclear facility in exchange for lifting a majority of sanctions against Pyongyang.

U.S. and North Korean officials have not commented on what either side offered in Stockholm.

North Korea's foreign ministry insisted last week the North would not hold any more "sickening negotiations" until the U.S. takes a "substantial step" toward a "complete and irreversible withdrawal" of its "hostile policy."

Trump has not publicly reacted to the latest breakdown in talks. But in recent months, Trump has given several signs he is more interested in reaching a deal.

Trump recently fired John Bolton, his national security advisor, who disagrees with the White House's outreach to Kim. Trump has also spoken of the need for a "new method" to the nuclear talks.

<https://www.voanews.com/usa/us-ambassador-n-korea-asked-everything-while-offering-nothing>

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## COMMENTARY

The Strategist (Canberra, Australia)

### **The P5 Must Reaffirm That Nuclear War Can't Be Won and Mustn't Be Fought**

By Ramesh Thakur

Oct. 15, 2019

There are three sets of reasons for a palpable rise in nuclear anxieties around the world: growing nuclear arsenals and expanding roles for nuclear weapons, a crumbling arms-control architecture, and irresponsible statements from the leaders of some nuclear-armed states.

One way to counter this would be for the P5 (China, France, Russia, the UK and the US—the five permanent members of the UN Security Council, which are also the five states recognised by the Nuclear Non-proliferation Treaty as lawfully possessing nuclear weapons) to co-sponsor a resolution affirming that 'a nuclear war cannot be won and must never be fought'.

Ronald Reagan first made that statement in 1984, and he and Soviet leader Mikhail Gorbachev reaffirmed it in 1987 at the signing of the historic Intermediate-Range Nuclear Forces Treaty. Today, their successors seem determined to restart a nuclear arms race and look for 'usable' nuclear weapons.

India, Pakistan and North Korea are enlarging their nuclear arsenals as fast as they can. China's military has called for a strengthening of its nuclear-deterrence and counter-strike capabilities. Earlier this month in Beijing, the People's Liberation Army paraded a range of new missiles, including the DF-41 heavy intercontinental ballistic missile and the DF-17 hypersonic glide vehicle.

In 2017, Paul Selva, a general in the US Air Force who was then serving as vice chair of the Joint Chiefs of Staff, said the future of nuclear deterrence lay in small, low-yield, usable nuclear weapons. The Department of Defense's 2018 nuclear posture review promised two new weapons: a low-yield warhead for the Trident submarine-launched ballistic missile, and a new nuclear-armed sea-launched cruise missile.

Russian President Vladimir Putin responded in March 2018 with boasts of a new array of invincible nuclear weapons designed to evade or penetrate US anti-missile defences anywhere in the world. Earlier this year he issued a warning that Russia could place hypersonic nuclear weapons on submarines deployed near US waters and is developing the ability to trigger a radioactive tsunami

in densely populated coastal areas using a new, nuclear-powered underwater drone. Russia could also deploy nuclear-powered cruise missiles with unlimited range by 2025, several failed tests to date notwithstanding.

The expanded arsenals reflect the disintegrating framework of nuclear-arms control. The US withdrew from the Anti-Ballistic Missile Treaty in 2002. President Donald Trump has exited the Iran nuclear deal, killed off the INF Treaty, and rebuffed Russian overtures to extend New START. The Comprehensive Test Ban Treaty hasn't yet entered into force. Negotiations on a fissile materials cut-off treaty are yet to commence.

On 22 August, invoking the moral authority of the first city attacked with an atomic bomb, an international group of high-level experts issued the 'Hiroshima urgent appeal' to maintain existing arms-control pacts as critical pillars of strategic stability. On 12 September, 100 Euro-Atlantic senior leaders from 24 European countries issued a call for a renewed commitment to arms control.

While the growing arsenals and collapsing pacts have attracted considerable media attention, the impact of the increased nuclear-tipped belligerent rhetoric is still largely below the radar. After the outbreak of the Ukraine crisis in 2014, facing hostile Western criticism of Russia's backing of rebels in eastern Ukraine and its annexation of Crimea, Putin pointedly remarked: 'Russia is one of the most powerful nuclear nations.'

In 2016, when then British prime minister Theresa May was asked in parliament if she would be prepared to authorise a nuclear strike that could kill 100,000 people, she answered, 'Yes.' In 2017, Trump boasted that his nuclear button was bigger and worked better than North Korean leader Kim Jong-un's. The two mocked each other with schoolyard insults and threats and counter-threats.

In February 2019, after a deadly clash between the two countries' air forces, Pakistan's PM Imran Khan warned of the possibility of a nuclear war. PM Narendra Modi responded that India's nukes were not reserved for celebrating the fireworks festival of Diwali. After India revoked Kashmir's autonomy in August, Khan reiterated that a nuclear war was a real risk. Foreign Minister Shah Mahmood Qureshi repeated the warning in Geneva on 10 September. Not to be outdone, Defence Minister Rajnath Singh tweeted that India's no-first-use policy could be shelved under unspecified circumstances.

The more the leaders of the nuclear-armed states revalidate the role of nuclear weapons in their national security, the more they normalise the discourse of nuclear-weapon use and embolden calls for nuclear-weapon acquisition in other countries like Germany, Japan, South Korea and Australia.

Instead, the P5 should co-sponsor parallel resolutions in the UN Security Council and General Assembly to reaffirm the 1987 Reagan-Gorbachev declaration. This could act as the circuit-breaker amid the many threatening nuclear storms that are gathering on the horizon.

Why the UN, why both its principal organs, and why the P5?

The UN is the biggest incubator of global norms to govern the world and the vital core of the rules-based global multilateral order. The Security Council and General Assembly play complementary, reinforcing roles. The 15-member Security Council is the world's only body with the authority to make decisions on war and peace that are legally binding and enforceable on all countries. The P5 can protect their interests with the veto. All of this makes the Security Council the geopolitical centre of gravity of the global order.

But the normative centre of gravity is the 193-member General Assembly, because the UN's unique legitimacy flows from its universal membership and its policy of one-state, one-vote formal equality in decision-making. The assembly's adoption of the Treaty on the Prohibition of Nuclear Weapons

in 2017—against the united opposition of the P5—was an assertion of normative primacy by two-thirds of the international community against the Security Council’s geopolitical dominance.

The chief impact of the nuclear weapons ban treaty is not operational, as none of the countries that voted for it has the bomb, but normative. It dilutes the legitimacy of the continued possession of the bomb by the P5. The major motivation behind the treaty was exasperation at the failure of the P5 to pursue nuclear disarmament. They need to demonstrate nuclear responsibility rather than simply oppose the will of the majority. Otherwise, the already pessimistic mood for the 50th anniversary review conference of the Nuclear Non-Proliferation Treaty next year will deepen even more, threatening the very survivability of this critical anchor of the global nuclear order.

Co-sponsoring identical resolutions in the Security Council and the General Assembly would re-establish the P5’s credentials as responsible nuclear powers without committing them to any concrete course of action.

Its biggest impact would be to harden the normative boundary between conventional and nuclear weapons that has been blurred in recent years with technological developments and serially irresponsible statements on the possession and use of nuclear weapons.

AUTHOR

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<https://www.aspistrategist.org.au/the-p5-must-reaffirm-that-nuclear-war-cant-be-won-and-mustnt-be-fought/>

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Bulletin of the Atomic Scientists (Chicago, Illinois)

## **The Open Skies Treaty May Be the Next Victim in a Spiraling Arms Control Extinction**

By Lawrence J. Korb

Oct. 10, 2019

If President Trump follows through on his threat to withdraw from the Open Skies Treaty, it will undermine US and global security.

The treaty, which was signed in 1992 and went into effect in 2002, has 34 state parties. 32 of these member states are in Europe and include Russia. The only two non-European states are the United States and Canada.

The treaty allows each of the member states to conduct unarmed surveillance flights over each other’s territories to verify arms control agreements and to share the information with the other members. Since the treaty came into force, state parties have flown more than 1,400 flights over each other’s territory.

It grew out of a 1955 proposal by President Eisenhower to allow nations to conduct mutual surveillance flights to calm fears about potential sneak attacks.

Like any treaty, Open Skies has not worked perfectly. Officials in the United States have alleged that Russia has violated it. For example, Moscow has limited the distance of some flights over the Russian enclave of Kaliningrad to a maximum of 500 kilometers since 2014 and blocked all flyovers near the border between Russia and Georgia since 2010. However, while it is true that these restrictions are violations of the treaty, they have had little real effect on our monitoring ability.

Further, the United States has responded by blocking proposed Russian flights over the Pacific fleet in Hawaii and missile defense interceptor sites in Alaska. Still, working to identify and resolve violations is part of enforcing any treaty, and in the past the United States and Russia were able to resolve issues that came up.

But overall, the treaty has benefited the United States, which is a much more open society than many of the other signatories, especially Russia. For example, as four Democratic members of the US Congress noted in a letter to the Trump administration, under the treaty, the United States was able to conduct flights in 2014 after Russia annexed Ukraine and in 2018 when the Russians seized three Ukrainian ships and their crews in the Black Sea. Ironically, the United States has overflown Russia three times more often than Russia has overflown the United States.

Most important, however, withdrawing from the Open Skies Treaty will continue the process of undermining the arms control regime between the United States and Soviet Russia that has been built up over decades, starting in 1972 under President Richard Nixon. President George W. Bush began the process of undercutting this arms control regime in 2002 when he unilaterally withdrew from the Anti-Ballistic Missile Treaty. Trump accelerated the decline by unilaterally withdrawing from the Intermediate-range Nuclear Forces (INF) Treaty and refusing to take Russian President Vladimir Putin up on his offer to extend New START, which expires in February 2021.

In short, there is no sound basis for pulling out of the Open Skies Treaty. Rather than withdrawing, the United States should be upgrading its own aging observation planes to match Russia's more advanced aircraft and discussing ways to modify and revive the now-defunct INF Treaty and extend New START.

<https://thebulletin.org/2019/10/the-open-skies-treaty-may-be-the-next-victim-in-a-spiraling-arms-control-extinction/>

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War on the Rocks (Washington, D.C.)

## **Tearing Down the Nuclear Firewall**

By Al Mauroni

Oct. 15, 2019

In the U.S. nuclear community, you'll often hear a strangely contradictory statement about nuclear weapons. It goes something like this: "We have nuclear weapons so that nuclear weapons will never be used." U.S. nuclear deterrence, however, hinges on the assumption that adversaries believe that the United States has a functioning stockpile of nuclear weapons that can and will be used. In recent decades, arms control, nonproliferation agreements, and confidence-building measures have reduced the possibility of a strategic nuclear exchange between Russia and the United States. However, the risk of a conventional military crisis in Europe, the Middle East, or Asia escalating into a theater nuclear war remains.

The U.S. military needs to prepare its conventional forces to fight through a limited nuclear war. Right now, that planning and training is not apparent. The challenge is that U.S. political and military leaders do not encourage critical discussions on theater nuclear weapons use — every pertinent detail about the nuclear stockpile is classified, and every debate includes references to Cold War strategic weapons. In an ideal world, the United States wouldn't use nuclear weapons if an adversary backs down in the face of a credible nuclear challenge. However, the existence of a nuclear taboo — that political leaders are restrained from first use of nuclear weapons — and Cold

War fears of a strategic nuclear exchange between Moscow and Washington raise questions about the operational value of nuclear weapons. And yet, the issue of limited nuclear war isn't going away.

Any time there is a confrontation with a nuclear-armed nation, U.S. policymakers and military leaders are thinking about the possibility of escalation. This can happen during a standoff in the South China Sea, while facing a crisis with Russia threatening the Baltic States, or when North Korea launches a ballistic missile over Japan. And while the senior decision-makers are asking "what if," there has been a very distinct hesitation by defense analysts and military planners to think about what happens after a limited nuclear exchange. It's been deliberately hard to get past the conventional-nuclear firewall. Does the conventional fight continue after the first nuclear detonation? Isn't escalation to a strategic exchange a foregone conclusion, and if so, isn't it moot to plan for continued conventional operations? That shouldn't be an acceptable response, and some in the U.S. military are working to change that attitude.

### Past Efforts to Plan for Limited Nuclear War

The U.S. government has a history of making plans for limited nuclear war. The plans hinged on having confidence that it could control escalation toward a strategic nuclear exchange. Thanks to accounts by Fred Kaplan, Lawrence Freedman, and Thérèse Delpech among others, we have a general sense of the Cold War history in which the U.S. nuclear posture changed from one of superiority in the 1950s to one of being slowly eclipsed by the Soviets in the 1960s. Arms control and nonproliferation talks started reducing the number of nuclear weapons, leading to a stable balance between the two main powers. In the 1970s and 1980s, U.S. administrations sought to pull back from "assured destruction" plans and discussed the possibility of limited nuclear strikes to achieve political objectives. For instance, the development of "flexible response" options would allow for using nuclear weapons in military conflicts, without going to a full strategic exchange.

During the Cold War, U.S. military forces had plans for using tactical nuclear weapons in Europe, in part because it was better than opting directly into a strategic nuclear exchange in the event of a Soviet attack. People remember President Ronald Reagan reaching out to the Soviet Union's leadership in his desire to decrease nuclear weapons of the two superpowers, and stating that "a nuclear war cannot be won and must never be fought." He said that in his 1984 State of the Union address, while at the same time, his administration was deploying Pershing 2 nuclear missiles and nuclear-armed, ground-launched cruise missiles in Europe. The deployments were in response to Soviet deployments of SS-20 intermediate-range nuclear missiles in Eastern Europe. In fairness, the NATO decision to deploy new U.S. nuclear weapons in Europe was made in 1979 during the Carter administration; Reagan was continuing previously established security plans and did not initiate this action.

When the Soviet Union collapsed in 1991, the United States stood alone as a unitary superpower. As a result, American military planners began to lose their expertise defending against adversaries with nuclear, biological, and chemical weapons. Some began to assume a magic firewall existed under which conventional wars would be fought by the geographic combatant commander, and if the conflict escalated past the firewall into nuclear warfare, U.S. Strategic Command would take over. In other words, strategic nuclear war was always someone else's problem, not that of the geographic combatant commands, who were busy with counter-terrorism operations, tracking illicit smuggling rings, and building partnership capabilities. Even at the senior war colleges, when a wargame escalates to nuclear use, the game ends. No one plays through the aftermath of the first use of nuclear weapons, assuming that they can no longer achieve their objectives.

### Developing an American Theory of Victory

In the face of growing Chinese and Russian power, the U.S. military is starting to discuss conventional-nuclear integration — the concept of integrating the use of nuclear weapons within theater plans to fight a conventional war against a nuclear-armed adversary. The 2018 Nuclear Posture Review notes that “every U.S. administration over the past six decades has called for flexible and limited nuclear response options,” and it warns that “limited nuclear escalation” by Russia or China to secure objectives within a theater of operations will not succeed. Brad Roberts has pointed out that Russia and China have “theories of victory” for using nuclear weapons below the threshold of strategic conflict, while the United States does not. While the military is just now socializing the idea of conventional-nuclear integration, it is not a new concept. Vincent Mazo and Aaron Miles see conventional-nuclear integration as “managing escalation in confrontations with nuclear-armed adversaries” as “an essential element of U.S. national security strategy” in 2016. Prior to that, Jeffrey Larsen and Kerry Kartchner released an edited volume *On Limited Nuclear War in the 21st Century* that offered several points of view on how the United States might prepare for this scenario.

While the academics have been busy, U.S. military leaders are not used to thinking about nuclear warfare. Conventional-nuclear integration is still very much a concept under development. Gen. John Hyten, former head of U.S. Strategic Command, has talked about how strategic deterrence should include both nuclear and non-nuclear weapons — that conventional, precision-strike munitions could offer that threat of force, previously made only by nuclear weapons, to deter an adversary (in some cases). Conventional-nuclear integration appears to go past that point of nuclear weapons only being used as a deterrent. If an adversary uses a nuclear weapon in theater (i.e., not against the continental United States), U.S. forces will have to continue conventional operations while considering how to compel the adversary to cease nuclear weapons use. This requires military planners to consider employment of tactical nuclear weapons while accounting for escalation risks. If U.S. planners are unprepared to respond to this scenario, it may in fact encourage continued nuclear attacks.

It’s all well and fine for the military to talk about conventional-nuclear integration, but are civilian policymakers ready for limited nuclear war? Civilians, after all, are the ones in the U.S. system that make the final decision about nuclear use. History has shown that the U.S. and former Soviet Union leadership have been decidedly pessimistic about using nuclear weapons, even as military leaders were planning for their possible use. Despite the U.S. military’s best-laid concepts, politicians may take significant steps to stop them from becoming official policy. A nation’s nuclear posture is not just the sum of its nuclear weapons and declared doctrine, but also how the politicians think and talk about nuclear weapons. As such, there are several challenges that have prevented the successful socialization of limited nuclear war theory.

#### Building Toward a Better Nuclear Policy

Thirty years after the Berlin Wall fell, many people still view nuclear weapons in terms of the Cold War — that the only possible outcome of any nuclear weapons use will be an apocalyptic, all-out nuclear exchange. Likewise, there is an assumption that there is no middle ground when facing a nuclear-armed adversary. Many believe that “the only winning move is not to play,” to quote *War Games*. Russian and Chinese officials don’t believe that, and they have embraced a role for nuclear weapons in local, regional, and strategic environments. But this Cold War fallacy affects views on U.S. defense strategy, modernization efforts, and political discussions. We can see this on both sides of the political aisle. If the politicians and civilian policymakers do not see a contemporary U.S. theory of victory for nuclear weapons use, then there will be no successful implementation of a conventional-nuclear integration concept.

Discussions outside the Pentagon on nuclear-use scenarios often disregard the possibility of tactical nuclear warfare. Both military and civilian leaders have stated that any nuclear weapon is by nature a strategic weapon. Well, of course it is, in terms of global political effect. That doesn't mean that officials should hide behind the term "non-strategic nuclear weapons," which is not an effective descriptor for military operations. Tactical nuclear weapons are designed to be used within a defined theater of operations and against military, not civilian, targets. It's not that hard. Conventional-nuclear integration requires consideration of the tactical application of nuclear weapons, distinctly short of a strategic nuclear exchange.

The U.S. government needs to discuss nuclear weapons capabilities and reliability more openly to improve policy and analyses. Currently, the public has to accept without debate the arcane and ambiguous statements of the U.S. nuclear community, and take on faith that they have the right solution for future defense scenarios that involve the use of these complex weapons. That's just not good enough. Keeping the recent joint publication on nuclear operations behind a "For Official Use Only" firewall does not help the U.S. military explain contemporary nuclear strategy and operations to the greater national security enterprise or to the general public. It also hampers America's ability to include allies in the discussion of nuclear weapons employment in their countries. These are, again, Cold War rules kicking in, which makes it difficult to have open analysis and debates on the issue of limited nuclear war (or any aspect of nuclear deterrence operations, for that matter).

The national security enterprise and the general public need to understand the U.S. military's concept of nuclear weapons use and its associated theory of victory. Indeed, the debate has already started, with the nuclear modernization program that was started under the Obama administration. To successfully engage in this debate, the U.S. government needs to acknowledge that contemporary nuclear weapons scenarios will not look like the Cold War. The national security enterprise should understand that tactical nuclear weapons are part of the military's toolkit. In order to gain the trust of policymakers and politicians, the Defense Department needs to talk plainly about basic facts regarding nuclear weapons' capabilities, locations, and use. Only then can the U.S. military confidently say that it has integrated conventional and nuclear operations.

Al Mauroni is the director of the U.S. Air Force Center for Strategic Deterrence Studies and author of the book, *Countering Weapons of Mass Destruction: Assessing the U.S. Government's Policy*. The opinions, conclusions, and recommendations expressed or implied within are those of the author and do not necessarily reflect the views of the Air University, U.S. Air Force, or Department of Defense.

<https://warontherocks.com/2019/10/tearing-down-the-nuclear-firewall/>

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## ABOUT THE USAF CSDS

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

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

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

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

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