



## **USAF Center for Unconventional Weapons Studies (CUWS) Outreach Journal**

CUWS Outreach Journal 1256

16 March 2017

### **Feature Item: "China's Evolving Nuclear Deterrent Major Drivers and Issues for the United States"**

[http://www.rand.org/pubs/research\\_reports/RR1628.html](http://www.rand.org/pubs/research_reports/RR1628.html)

China's approach to nuclear deterrence has been broadly consistent since its first nuclear test in 1964. Key elements are its no-first-use policy and reliance on a small force of nuclear weapons capable of executing retaliatory strikes if China is attacked. China has recently accelerated nuclear force building and modernization, and both international and domestic factors are likely to drive faster modernization in the future. Chinese nuclear planners are concerned by strategic developments in the United States, especially the deployment of missile defenses. Within the region, Beijing is also an actor in complex multilateral security dynamics that now include several nuclear states, and the improving nuclear capabilities of China's neighbors, especially India, are a growing concern for Beijing. Constituencies for nuclear weapons have gained in bureaucratic standing within the People's Liberation Army (PLA). With few, if any, firewalls between China's conventional and nuclear missile forces, new technologies developed for the former are already being applied to the latter, a trend that will almost certainly continue. Given these changes, China is likely to increase emphasis on nuclear deterrence, accelerate nuclear force modernization, and make adjustments (although not wholesale changes) to policy.

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KGO-TV (San Francisco, CA)

### **Lawrence Livermore Lab Publishes US Nuclear Weapons Test Films**

By Jonathan Bloom

March 15, 2017

What was once highly classified can now be found on YouTube -- and this isn't a leak. The Lawrence Livermore National Lab is beginning to publish thousands of films of U.S. nuclear weapons tests.

The images are both frightening and fascinating.

These are no Hollywood effects. They're films of real U.S. nuclear tests conducted in the 1950s and 60s. They were made for science and measured to create parts of the nuclear prediction models that are still in use today.

"One frame at a time, and they would shine it onto a grid and somebody actually had to eyeball what the answer was or what the measurement was," Lawrence Livermore Lab's Greg Spriggs said.

And that was a problem. With an error of plus or minus 10 percent, it was far less precise than today's computer image analysis. So Spriggs is leading a project to re-analyze the films for data that could be critical if there's ever a nuclear war.

"That he's not going to drop a bomb on one of our enemies and it's going to wipe out one of our allies," he said.

Getting those films into the computer required starting from a dizzying array of different film sizes and formats shot at all different speeds.

"They were looking for every way to possibly capture information from these detonations," Spriggs said.

And James Moyer is an expert in most of them. "This camera is the Eastman high speed camera type three," he said.

It shoots thousands of frames per second to capture every detail of the initial blast.

Moyer has to clean and splice the films and scan them before even more of them start falling apart. "The data that we took back then is it. That's it. We're never going to test an atmospheric shot again, so need to preserve these data," Moyer said.

But why make them public? Spriggs said they're priceless for academic research but also as a reminder. "Of the immense energy that's produced with a nuclear detonation, and hopefully that nobody will ever want to use these things or attack the United States. I don't think they want to have the retaliation of one of these nuclear weapons being dropped on their country," Spriggs said.

<http://abc7news.com/science/lawrence-livermore-lab-publishing-us-nuclear-weapons-test-films/1802890/>

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Reuters (New York, NY)

## **White House Proposes Reviving Yucca Mountain Nuclear Waste Site**

By Timothy Gardner

The White House's 2018 budget plan for the U.S. Department of Energy includes \$120 million for nuclear waste programs including the restart of licensing for Nevada's Yucca Mountain, a project stalled for years by lawsuits and local opposition.

The move signals that President Donald Trump may consider that nuclear waste solutions could extend the lives of existing U.S. nuclear power plants and speed up innovations in next-generation nuclear plants that backers say are safer than previous reactors.

Congress will debate the budget and it is uncertain whether funds for waste will remain in the plan.

While Yucca Mountain would store waste on a practically permanent basis, the budget money would also support programs for storing waste at interim sites before Yucca opens.

"These investments would accelerate progress on fulfilling the federal government's obligations to address nuclear waste, enhance national security, and reduce future taxpayer burden," according to a summary of the budget.

Yucca has been studied by the U.S. government since the 1970s as a potential repository for the nation's radioactive waste and billions of dollars have been spent on it.

But Yucca has never opened because of legal challenges and widespread opposition from local politicians, environmentalists and Native American groups.

In 2010, then-President Barack Obama withdrew the license to store waste at Yucca amid opposition from then-Senate Majority Leader Harry Reid, a fellow Democrat from Nevada.

Maria Korsnick, the head of the Nuclear Energy Institute industry group, said the industry was encouraged by the plan for waste projects but that nuclear energy innovators were "nervous" about cuts to programs that have supported public-private partnerships to bring new nuclear technologies to market.

The budget eliminates funding for the Advanced Research Projects Agency for Energy and an innovative technology loan guarantee program that have been popular with both Democrats and many Republicans.

Trump's energy secretary, Rick Perry, told lawmakers at his confirmation hearing that restarting the Yucca Mountain project could not be ruled out, but that he would collaborate with states.

"I am very aware that this is an issue this country has been flummoxed by for 30 years. We have spent billions of dollars on this issue," Perry told the hearing in January. "I'll work closely with you and the members of this committee to find the answers to this issue."

The White House proposal for the Department of Energy budget calls for an overall cut of 5.6 percent.

<http://www.reuters.com/article/us-usa-trump-budget-nuclear-idUSKBN16N0D5>

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The Guardian (London, UK)

### **Stockpiles of Nuclear Weapons Around the World – In Data**

Author Not Attributed

March 11, 2017

*This week saw more atomic sabre-rattling by North Korea, but it is estimated that the global total of nuclear weapons has shrunk by a third in the last half-decade*

North Korea launched four ballistic missiles earlier this week, leading to renewed condemnation from the international community.

This latest action by the east Asian nation, which has now carried out dozens of missile launches and five nuclear tests, was described by Japanese prime minister Shinzō Abe as “an extremely dangerous action”.

North Korea, on the other hand, says joint military exercises by the US and South Korea are at fault: “The situation on the Korean peninsula is again inching to the brink of a nuclear war,” ambassador Ja Song Nam said in a letter to the UN security council.

It is estimated that North Korea now has 10 nuclear weapons, up from six or eight in 2013. This increase is in contrast to an overall decrease in the number of nuclear weapons worldwide. The Stockholm International Peace Research Institute (SIPRI), an independent resource on global security, has estimated that the number has fallen by almost a third, from 22,600 in 2010 to around 15,395 last year. That said, SIPRI also states that both the US and Russia are going through extensive modernising programmes for their remaining weapons.

The main factor in this reduction is the diminishing numbers of warheads held by the US (which dropped from around 9,600 to 7,000 in that period) and Russia (which went from 12,000 to 7,290). The UK figure also dropped, from 225 to 215.

But some countries’ arsenals have grown: China was thought to have 260 warheads in early 2016, compared with 240 in 2010. India and Pakistan have also seen their figures creep up in recent years: India is thought to have between 100 and 120 nuclear weapons now, compared with between 60 and 80 in 2010, while Pakistan may have as many as 130, up from 70-90.

<https://www.theguardian.com/world/2017/mar/11/stockpiles-of-nuclear-weapons-around-the-world-in-data>

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Los Angeles Times (Los Angeles, CA)

### **This Troubled, Covert Agency is Responsible for Trucking Nuclear Bombs Across America Each Day**

By Ralph Vartabedian and W.J. Hennigan

The unmarked 18-wheelers ply the nation’s interstates and two-lane highways, logging 3 million miles a year hauling the most lethal cargo there is: nuclear bombs.

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The covert fleet, which shuttles warheads from missile silos, bomber bases and submarine docks to nuclear weapons labs across the country, is operated by the Office of Secure Transportation, a troubled agency within the U.S. Department of Energy so cloaked in secrecy that few people outside the government know it exists.

The \$237-million-a-year agency operates a fleet of 42 tractor-trailers, staffed by highly armed couriers, many of them veterans of the Iraq and Afghanistan wars, responsible for making sure nuclear weapons and components pass through foggy mountain passes and urban traffic jams without incident.

The transportation office is about to become more crucial than ever as the U.S. embarks on a \$1-trillion upgrade of the nuclear arsenal that will require thousands of additional warhead shipments over the next 15 years.

The increased workload will hit an agency already struggling with problems of forced overtime, high driver turnover, old trucks and poor worker morale — raising questions about its ability to keep nuclear shipments safe from attack in an era of more sophisticated terrorism.

“We are going to be having an increase in the movements of weapons in coming years and we should be worried,” said Robert Alvarez, a former deputy assistant Energy secretary who now focuses on nuclear and energy issues for the Institute for Policy Studies in Washington. “We always have to assume the worst-case scenario when we are hauling nuclear weapons around the country.”

That worst case would be a terrorist group hijacking a truck and obtaining a multi-kiloton hydrogen bomb.

“The terror threat is significant,” said one high-level Energy Department official, who spoke on condition of anonymity because he was not authorized to discuss the program publicly. “If you are in one of the communities along the route, you have something to worry about.”

The Times reviewed government documents dating back two decades and interviewed dozens of government officials, former military officers and arms control advocates to examine the agency. The picture that emerges is an organization hampered by an insular management, a crisis of morale among the rank-and-file and outdated equipment.

Among the findings of the Times investigation:

The agency is 48 agents short of its planned staffing of 370, a result of budget cuts. Weapons and tactics classes were canceled in 2011 and 2012 for lack of money.

More than a third of the workforce has been putting in more than 900 hours a year of overtime, which former couriers and Energy Department officials say has contributed to a breakdown in morale and rapid turnover.

In 2010, an inquiry by the Energy Department’s inspector general found widespread alcohol problems. It cited 16 alcohol-related incidents over a three-year period, including an agent on a 2007 mission who was arrested for public intoxication and two agents on a 2009 mission who were handcuffed and detained by police after a fight at a bar.

In 2014, the commander of the agency’s operation at the Y-12 National Security Complex in Tennessee threatened to kill an employee in an altercation, but no disciplinary action was taken.



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The agency's top executive in 2009 was charged with drunk driving after police found him parked on a sidewalk with an open bottle of beer and a blood-alcohol concentration of 0.15%, nearly twice the legal limit, according to New Mexico court records.

The agency's truck fleet is antiquated by commercial standards and well past its operational life even under the department's own guidelines. About half the tractors are more than 15 years old. The high-security trailers used by the agency are even older, designed before the current era of terrorist threats.

How the agency wound up in this state is a story of neglect that begins at the end of the Cold War.

After the Soviet Union broke apart in 1991 and chances of a nuclear attack faded, the U.S. dramatically reduced its nuclear stockpile and gave it less attention as military priorities shifted.

The transportation office budget stagnated, and was hit by big cuts in some years, leading to staffing shortages and delays in updating equipment. Drivers had to start working long hours of overtime, which led to morale problems and management breakdowns.

Despite these problems, the agency asserts that it has maintained a high level of security and has never lost a weapon, though it has been involved in several accidents.

The agency denied repeated requests for interviews with top managers. It issued a statement touting its safety record: "For more than 40 years — even after driving the equivalent distance of a trip to Mars and back — no cargo has ever been damaged in transit," it said.

Yet even one of its most stringent security measures was breached, the inspector general found in 2014, when an "unauthorized" employee had access to a nuclear weapon on a convoy mission.

According to two knowledgeable sources, the person in question had lost his human reliability rating, which is based on screening for drugs, alcohol abuse or mental health problems, among other things. Under the agency's rules, the unidentified employee should not have been allowed on the mission. The employee was discovered at a military base and removed from the assignment.

Overseers in Congress say the transportation office is less prepared for an attack than it used to be.

"It clearly needs a reinvestment," Rep. Mac Thornberry, the Texas Republican who chairs the House Armed Services Committee, said in an interview. "Like other parts of the nuclear enterprise, the agency has been allowed to atrophy as the country has focused on other things."

### **'Transportation is the Achilles' heel of nuclear security'**

The United States has 4,018 nuclear warheads.

About 450 are in underground silos in Wyoming, Colorado, Montana, Nebraska and North Dakota. An additional 1,000 or so are on submarines, which dock at bases in Washington and Georgia. Hundreds more bombs are assigned to the U.S. strategic bomber fleet, which is



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based in Louisiana, North Dakota and Missouri. And a reserve stockpile sits in bunkers near the transportation office headquarters at Kirtland Air Force Base in New Mexico.

Each weapon — a complex physics machine that contains as many as 6,000 parts, including tanks of gas, wheels and gears, batteries, wiring, plastic-type explosives and radioactive materials — requires routine inspection, testing and maintenance.

The workers who perform those services don't travel to the weapons. The weapons go to them.

They are picked up by the transportation office and driven to the government's sole plant for working on live nuclear warheads, the Pantex Plant outside Amarillo in the Texas panhandle.

From there, various pieces are parceled out to government plants and laboratories across the country. Uranium assemblies travel to Tennessee, plutonium parts to New Mexico, radioactive gas canisters to South Carolina, non-nuclear classified parts to California and firing mechanisms to Kansas City.

Those parts are then returned to Texas so the warheads can be reassembled and trucked back to their silos or military bases.

The system dates back to the 1950s and the rapid buildup of nuclear arms that accompanied the Cold War. Weapons were spread across the nation to ensure that a significant number could not be destroyed in a focused missile strike.

The same went for the facilities that service those weapons. But exactly where they wound up — and where they are today — largely came down to politics, as members of Congress schemed to bring high-paying jobs to their districts.

The result is an unwieldy system that requires some of the most dangerous and vulnerable components of the nation's defense system to be routinely shipped on long-distance journeys from one end of the country to the other — and the shipments, with the coming modernization effort, are only expected to multiply.

"This has a classic footprint of an antiquated and inefficient supply chain management system that was created at a time of national emergency," said Nick Vyas, an industrial logistics expert at USC.

"If this were a private operation, it would be out of business in less than 90 days," he said. "No person in their right mind would subscribe to a service like this."

More serious than the inefficiencies in moving so many parts is the vulnerability inherent in placing nuclear bombs on the highways, several experts said.

"Transportation is the Achilles' heel of nuclear security and everyone knows that," said Bruce Blair, a retired Air Force missile officer, Princeton University researcher and founder of Global Zero, a nonprofit group that seeks elimination of nuclear weapons.

The danger is not a traffic accident — even a fiery crash is not supposed to explode a warhead — but a heist.

"In an age of terrorism, you're taking a big risk any time you decide to move nuclear material into the public space over long distances via ground transport," Blair said. "Bad things happen."

The high-security trailers that carry the weapons present potential intruders with formidable obstacles, including shock-delivering systems, thick walls that ooze

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immobilizing foam, and axles designed to explode to prevent a trailer from being towed away, according to independent nuclear weapons experts.

"The trucks will kill you," a scientist involved in the matter said.

The Energy Department recruits ex-soldiers and special operations commandos for its courier jobs, usually veterans of U.S. wars. Incoming agents train for 21 months at Ft. Chaffee in Arkansas, focusing on how to counter a roadside attack by terrorists set on stealing a weapon. The couriers must pass yearly psychological and medical assessments.

They spend months each year working out in private gyms, rehearsing tactics and training with high-powered weapons to counter an attack.

The work itself is mundane and tiring, involving long hours on the road under a constant state of high alert. Workers often put in 75 hours a week, according to numerous reviews of the agency.

Matt Hill joined the transportation office after 13 years in the Marine Corps and three deployments to Iraq. He was looking for civilian employment that would tap into his military experience.

But the job was not what Hill expected. Life on the road meant long weeks away from his family. The pay, about \$73,000 a year with overtime, was less than he made in the Marines.

Couriers have been quitting, many of them the experienced veterans so crucial to maintaining safety, Hill said. Finally in February 2016, after just three years on the job, Hill quit too.

"The senior agents are all leaving," he said. "People at the top won't listen."

'Ominous symptoms' of structural problems

The agency has been the target of worker complaints for years.

In the 1990s, a nuclear courier named Jim Bailey alleged that on-the-job radiation exposure had damaged his DNA and led to birth defects in his daughter.

A panel of experts found that was unlikely. But in a 67-page report issued in 1998, it laid out a number of other deep problems within the agency, finding that "low morale, distrust and poor communications" among agents are "the ominous symptoms of progressively worsening structural problems" in working conditions.

Two-thirds of couriers had symptoms of sleep disorders, including irritability, and the cramped trucks led to knee and back ailments, the report found.

Bailey was fired but sued and won a small amount of back pay and the right to return to his job. He never did.

After the terror attacks of Sept. 11, 2001, the government turned its attention to the nation's most critical vulnerabilities and concluded that more needed to be done to prevent terrorists from obtaining a nuclear bomb.

In a 2005 letter to Congress, then-Energy Secretary Samuel Bodman called the transportation office a "top priority" and asked lawmakers for money for more agents, special weapons, tougher armored vehicles and improved tactics.

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The goal was to increase staffing from about 290 to 420 couriers by 2008. But the agency never reached that level, as lawmakers rejected most of the funding request. Today it aims to employ 370 agents but has 322.

The long hours couriers must work — identified as a chronic problem by the inspector general — contribute to poor morale and a tense work environment.

Those tensions can boil over, as when the supervisor in Tennessee threatened to kill an employee. The same supervisor had been involved in seven verbal and physical incidents that weren't reported, including "uncontrolled anger, hostility and aggression toward fellow workers and authority figures," according to a 2014 report by the inspector general.

The failure to discipline the employee posed a grave danger, the report found, concluding that it raised the risk that "unsuitable individuals could be allowed to protect nuclear weapons, weapon components and special nuclear material, raising possible national security concerns."

As for the alcohol issues cited by the inspector general, the agency has banned beer kegs at parties at the Ft. Chaffee dormitory for trainees and mandated random alcohol testing and suspension of agents with a blood alcohol concentration above 0.02%.

And after years of lean budgets — and sometimes outright cuts — the agency requested a 19% increase in fiscal 2017, to \$283 million. But Congress didn't approve it, and the agency's funding for this year is less than what it received in 2012.

The agency has been able to purchase five new rigs a year. More potent self-defense systems for the trucks are on the way in a trailer dubbed the Mobile Guardian, which the Energy Department is spending \$670 million to develop. But the new trailers are not expected to hit the road until 2023 — long after the weapons modernization program is underway.

Meanwhile, the older rigs are well maintained and log fewer miles than comparable commercial trucks, and agency officials are confident they will be able to do the job, said Al Stotts, a spokesman for the nuclear administration.

"They don't send them out with problems," he said.

<http://www.latimes.com/nation/la-na-nuclear-couriers-20170310-story.html>

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The Diplomat (Tokyo, Japan)

### **THAAD and the Future of Strategic Stability in East Asia**

By Eric Gomez

March 10, 2017

*Are China's concerns about U.S. missile defense exaggerated? Perhaps not.*

The deployment of the Terminal High Altitude Area Defense (THAAD) system to South Korea, announced by U.S. Pacific Command on March 6th, improves the United States' deterrent against North Korean attack. Yet it could also significantly damage strategic stability between the United States and China—a downside that has not been widely discussed.

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U.S. officials and China watchers are quick to downplay Chinese concerns by emphasizing THAAD's defensive nature and asserting that North Korea is the primary target of the system. The North Korean threat is a real danger that should be addressed, but addressing that danger in such a way could cause worse long-term problems for East Asia.

The major potential cost of America's decision to deploy more ballistic missile defense (BMD) systems to East Asia may be in how China reacts. The deployment of THAAD, coupled with America's considerable ability to target China's nuclear forces with conventional and nuclear weapons, presents Beijing with strong incentives to adjust their nuclear forces and doctrine. In so doing, China would improve the survivability of its nuclear deterrent, but undermine strategic stability.

During the Cold War, China's nuclear forces were unique due to the small size of its arsenal, which stood in stark contrast to their massive American and Soviet counterparts. Mao Zedong considered nuclear weapons to be "paper tigers" that would be useless on the battlefield, and he had no interest in joining a nuclear arms race with the two superpowers. China's modern nuclear force has improved its secure second strike capabilities, but it is still puny compared to the United States, and it still adheres to a no first use doctrine that was first declared in 1964.

China's small, survivable nuclear force bodes well for strategic stability, because there is little incentive for such a force to use nuclear weapons first in a conflict. A small nuclear force is incapable of disarming a better-armed adversary like the United States, but such a force could ride out a first strike and feel confident in their ability to strike back. The high cost of an assured second strike prevents the United States from using nuclear weapons first, while China doesn't use nuclear weapons first because it couldn't disarm the United States.

THAAD and other forms of BMD upend this strategic balance by providing the United States a degree of protection against nuclear retaliation. The United States could feel more confident about conducting a first strike against Chinese nuclear forces if the few surviving forces can be defeated by BMD systems. Improvements to American remote sensing, conventional precision strike, and nuclear capabilities increase the potency of a disarming first strike, while advances in BMD systems increase the likelihood that China's surviving nuclear weapons can be destroyed en-route to their targets.

If the survivability of China's relatively small nuclear arsenal is threatened, it would make sense for Beijing to make adjustments in doctrine and weapons technology that bolster survivability and keep the assured in "assured retaliation." Changes to China's no first use doctrine would be a major policy shift and face domestic hurdles. However, recent Chinese military publications argue for improving early-warning capabilities and placing nuclear forces on a higher alert level so China's forces can get off the ground before being hit by a U.S. first strike. Adjustments to weapons technology can also enhance survivability. Adding more nuclear warheads to individual missiles would give a bigger punch to missiles that survive a first strike, while hypersonic glide vehicles can conduct flight maneuvers that make it difficult for BMD systems to intercept the warhead.

All of these options would have negative effects on strategic stability because they encourage preemption. China faces a "use it or lose it" problem, while the United States could face a window of opportunity to destroy Chinese nuclear forces as early as possible in

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a conflict. The risks of a crisis or conventional conflict escalating to the nuclear level become more acute.

Of course, it is impossible to say with absolute certainty that this bleak scenario will unfold. While there are multiple ideas about how China could change its nuclear forces and doctrine in destabilizing ways, there have been no official policy announcements yet. Beijing may also conclude that its inability to rein in North Korea's behavior is to blame for THAAD's deployment and adjust their policy in ways that reduce the North Korean threat and the need for THAAD. It is also important to note that THAAD cannot shoot down Chinese intercontinental ballistic missiles that are aimed at the United States, but it can help other BMD systems track and engage such missiles.

While Beijing's response is unknown at this time, there are strong incentives for China to adjust nuclear doctrine and weapons technology in ways that undermine strategic stability. THAAD does benefit the United States by complicating North Korea's ability to conduct missile strikes against the ports that follow-on U.S. forces would use in a conflict. Yet while the THAAD deployment may reduce the chances of nuclear escalation on the Korean Peninsula, it may also increase the likelihood of nuclear escalation with China.

<http://thediplomat.com/2017/03/thaad-and-the-future-of-strategic-stability-in-east-asia/>

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Scout Warrior (Minnetonka, MN)

## **US THAAD Deployment to Korea Rattles China**

By Michael Fabey

March 14, 2017

*Beijing sees THAAD as an escalation against their own missile forces and have argued and fought against the system's deployment since the idea was broached as North Korea began slinging its rockets farther.*

The U.S. Terminal High Altitude Area Defense system (THAAD) deployed to South Korea earlier this month and while the missile-muting shield is meant to keep North Korean nuclear ambitions in check it is also driving the Chinese to distraction.

Beijing sees THAAD as an escalation against their own missile forces and have argued and fought against the system's deployment since the idea was broached as North Korea began slinging its rockets farther.

American analysts and other experts says the Chinese may have a point.

U.S. Pacific Command (Pacom) deployed the first THAAD elements to South Korea this month, implementing the U.S.-South Korean alliance's July decision to bring the defensive capability to the Korean Peninsula.

"North Korea's accelerating program of nuclear weapons tests and ballistic missile launches constitute a threat to international peace and security and violate multiple United Nations Security Council resolutions, Pacom officials said in statement, adding that the THAAD deployment contributes to a layered missile defense system and enhances the alliance's defense against North Korean missile threats.



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### **Provocative North Korean Actions.**

"Continued provocative actions by North Korea, to include (the recent launch of a) launch of multiple missiles, only confirm the prudence of our alliance decision last year to deploy THAAD to South Korea," Navy Adm. Harry Harris, Pacom commander, said in a statement. "We will resolutely honor our alliance commitments to South Korea and stand ready to defend ourselves, the American homeland and our allies."

The THAAD system is a strictly defensive capability, and it poses no threat to other countries in the region, Pacom officials said. It is designed to intercept and destroy short- and medium-range ballistic missiles inside or outside the atmosphere during their final phase of flight.

"THAAD interceptors do not necessarily add much capacity to counter the North Korean missile threat to South Korea," Bryan Clark a military analyst for the Center for Strategic and Budgetary Assessment (CSBA) tells Scout Warrior. "They are designed to intercept faster, longer-range ballistic missiles as they start their terminal phase after they reenter the atmosphere. The short-range ballistic missiles North Korea would use against South Korea can be defeated by Patriot PAC-3 and PAC-3 MSE, which are less expensive and carried in larger numbers by U.S. forces. Note that THAAD interceptors cost about \$11 million each and Patriot interceptors cost between \$2 and 4 million each. Although they use different launchers, 4 PAC-3 interceptors can fit into the same launcher space as one THAAD, increasing the defensive capacity of U.S. forces."

What THAAD brings, however, Clark notes in an email, is the AN-TPY-2 radar and command and control systems. "The sensor and C2 system is what USFK really needs to find and target incoming missiles and apportion missile defenses appropriately. For example, with a good radar, operators can tell what kind of missile they are facing and can decide whether to use a high-end PAC-3 MSE interceptor (price about \$4 million), a PAC-3 interceptor (price about \$3.5 million) a PAC-2 interceptor (price about \$2 million), or (if needed), THAAD.

He also says, "THAAD also provides a longer-range BMD capability that may force an attacker to create more complex salvos to defeat U.S. missile defenses. If the only BMD U.S. forces have is shorter-range PAC-3, an adversary may send in less sophisticated and cheaper ballistic missiles. With a longer-range BMD capability, U.S. forces could intercept some number of ballistic missiles faster away, compelling attackers to use more decoys, penetration aids, ad maneuvering missiles, making salvos more expensive."

THAAD also will be useful against longer range ballistic missiles that North Korea or China may use against Japan or other targets in the Pacific such as Hawaii or Alaska, he points out. "This may be part of China's concern about the THAAD deployment. It may represent a forward missile defense capability for U.S. forces against China, similar to how Aegis Ashore in Europe represents a forward missile defense capability against Russia."

Robert Haddick, a former U.S. Marine Corps officer with service in East Asia and Africa who more recently has been a research contractor for U.S. Special Operations Command, and wrote the book, "Fire on the Water: China, America and the Future of the Pacific," also sees why a THAAD deployment would upset Chinese officials.

"As for China's response to THAAD, it seems a little over the top at first," he says in an email. "But there are two explanations for that. First, Chinese policymakers want to show

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themselves (and everyone else) that they are making progress on creating dominating leverage over other countries in the region, and also success at reducing U.S. influence and allied dependency on the U.S. South Korea's decision to approve THAAD and wave it in after the latest North Korean missile shots shows just the opposite. Namely, that China is not succeeding at driving the U.S. out or economically coercing U.S. allies like South Korea (or Japan)."

Second, he says, "China hates THAAD for the same reason that the USSR hated SDI (Strategic Defense Initiative). Both have/had missile-centric doctrines, investments, and force structures. The centralized control that comes with ballistic missile forces fits the culture of those regimes. Now THAAD (and earlier, SDI) threatens that major, major cultural, doctrinal, and financial investment. PLARF (People's Liberation Army Rocket Force) planners want to be able to calculate with high confidence how many missiles it will take to reduce certain target sets. Highly effective missile defense systems like THAAD upset all that work and investment. Even if THAAD isn't "air tight," it certainly adds great uncertainty to PLARF calculations and basically messes everything up for them. And that makes those officers, and their political bosses, upset."

<http://www.scout.com/military/warrior/story/1762969-us-thaad-deployment-to-korea-rattles-china>

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Defense Video Imagery Distribution System (Ft. Meade, MD)

### **437th AW Tests Aircrew Chemistry for CBRN Operations**

By Megan Munoz

Members of the 437th Airlift Wing (AW) are participating in a chemical, biological, radiological and nuclear (CBRN) exercise, part two of Exercise Bonny Jack 2017, here, which began March 8.

Exercise Bonny Jack 2017 is a three-part readiness exercise for Joint Base Charleston, which began with a two-day mobility exercise March 1 and 2.

Members of the Active Duty and Reserve airlift squadrons here engaged in the CBRN exercise. Pilots and loadmasters tested their ability to perform preflight checks and load cargo in CBRN gear during the exercise.

"We're doing this exercise now to identify things that need to be fixed in case of a real world scenario," said Lt. Col. Jason Morrison, 437th AW inspector general. "Ideally, if we were sending someone to a chemical environment, they would get training before they left and have it fresh in their mind. Depending on the situation, that may or may not be the case."

The CBRN exercise will culminate with a flight to a simulated chemical location, March 15. Pilots and loadmasters will wear CBRN equipment throughout the duration of the flight. When aircraft fly from a non-chemical environment to a chemical environment, the aircrew wears gas masks, gloves and an intercom system to communicate with each other.

"Anytime we do an exercise I try to make it as real as possible," said Morrison. "The more simulations you throw in, the less productive it is for the participants. It takes them out of the scenario, trying to figure out what tasks should be done and which ones should be simulated."



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Bonny Jack 2017 will conclude with a large-formation exercise in May. The large-formation exercise coincides with All American Week at Fort Bragg, North Carolina, where the 437th AW will practice dropping cargo and paratroopers.

<https://www.dvidshub.net/news/226474/437th-aw-tests-aircrew-chemistry-cbrn-operations>

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El Paso Times (El Paso, TX)

### **Chemical Soldiers 'Love' Training at Recent Exercise**

By David Burge

March 12, 2017

Soldiers from Fort Bliss' 22nd Chemical, Biological, Radiological and Nuclear Battalion said they gained some valuable experience during their recent training exercise and are ready for their next step.

"We are ready to go to Yakima," Wash. for a large-scale training event in April and into May, said Spc. Brooklyn Brennan, a Stryker driver with the 44th CBRN Company (Hazardous Response).

"We are getting amazing in our ability to take on bigger missions," said Brennan, of Destin, Fla.

Brennan said she "loved" the training the battalion recently experienced out in the vast Fort Bliss training area.

"It is really teaching me a lot of what I need to know," she said.

The exercise included six days of situational training at the squad and platoon levels and culminated with two companies and the battalion headquarters coming together for a final mission.

On the final day, they practiced identifying mock threats and safely disposing of them. They secured a village out in the training area and then proceeded to go building by building, room by room, looking for threats and weapons of mass destruction.

"This is an opportunity to see all the expertise that comes within the battalion and build our team into a stronger one," said 2nd Lt. Raman Botta, platoon leader for 3rd Platoon, 44th CBRN Company.

Not only did they practice their highly specialized skills as chemical soldiers, but they also practiced key tactical skills such as being able to provide their own security, said Botta, from Grand Blanc, Mich.

"If you can't keep yourself safe in a dangerous area, what does everything else you have learned matter?" Botta asked.

Second Lt. Jessica Fields is a team leader with the 46th Chemical, Biological, Radiological, Nuclear and Explosives Company (Technical Escort).

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Fields' team is relatively new and this was the first time it got to go out in the field together. Her team specializes in taking samples and analyzing potential threats, said Fields, from Downers Grove, Ill.

"This will make us a better team and give us a feel of what we need to do if we deploy someday," Fields said.

<http://www.elpasotimes.com/story/news/military/ft-bliss/2017/03/12/chemical-soldiers-love-training-recent-exercise/98630760/>

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The Carnegie Endowment (Washington, DC)

## **The Real Problem with a Nuclear Ban Treaty**

By Matthew Harries

March 15, 2017

*A world without nuclear weapons would be, in the long term, a better world than today's. But, with treaty negotiations about to start at the UN, it is time to be blunt about the practical implications of a ban, as opposed to its principled ambitions.*

The nuclear-ban-treaty movement has a problem. It is not so much that a ban will be useless, or that it will undermine the Nuclear Non-Proliferation Treaty—although those things might well be true. The problem is that, when one moves past abstract principles to what the ban will actually do in practice, the target of the treaty is clear: intentionally or not, it is an attack on the nuclear-armed democracies—the United States, in particular—and their allies to the near-exclusive benefit of Russia and China.

It is an uncomfortable point to make. A world without nuclear weapons would be, in the long term, a better world than today's, and one hesitates to get in the way of those who are trying to reach that goal. But, with treaty negotiations about to start at the UN, it is time to be blunt about the practical implications of a ban, as opposed to its principled ambitions.

The main way for a ban treaty to achieve anything of substance is to throw grit into the bearings of U.S. extended deterrence. It could do so by various means. It might contribute to pressure to withdraw U.S. nuclear weapons from their NATO host countries in Europe, or at least pressure on those countries not to procure replacements for their nuclear-capable aircraft. More broadly, it might make it harder for NATO to present a united front against Russian nuclear saber rattling—a direct threat to existing global norms of nuclear restraint—by pitching the alliance back into fractious debates about the role of nuclear weapons, on which a delicate consensus has been reached in recent years.

As a leaked U.S. non-paper made clear in the run-up to the UN General Assembly vote to authorize the start of negotiations, a ban treaty signed by U.S. allies or partners could set up legal obstacles to carrying out extended-deterrence-related operations. This could affect not just NATO, but perhaps also East Asia especially, via a prohibition on the transit of nuclear weapons through national territory, airspace, or waters, and a prohibition on participating in nuclear planning or subscribing to nuclear doctrines.

The ban's advocates also hope that it will affect nuclear procurement choices in France or the UK—especially the UK, where there is a tradition of effective disarmament protest, although even there the consensus around nuclear deterrence now seems fairly settled.

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What the ban treaty will not do, however, is encourage Russia or China (let alone North Korea) to disarm, or even to participate more actively in bilateral or multilateral arms control initiatives. How could it? Civil society movements in those countries will not be pressuring their governments to make reductions or to halt existing modernization programs. Moral pressure is not a guiding factor in Russian or Chinese decisionmaking on national security. The logic of a ban treaty, which relies on generating such pressure, applies to countries where there is a direct connection between activism and the making of nuclear policy.

Supporters of the ban might hope that enforced constraints on the nuclear-armed democracies and their allies will encourage restraint on the part of other, less democratic nuclear-armed states. But this argument willfully misunderstands the motives for Russian and Chinese nuclear armament. Those countries' nuclear programmes are primarily driven not by U.S. extended nuclear deterrence per se—nor, it need hardly be said, by British and French nuclear modernization—but rather, in the long run, by U.S. conventional military strength.

A global nuclear restraint regime is badly needed—but it will have to be negotiated with the active participation of at least several of the nuclear-armed states. Meanwhile, there are other important existing initiatives, including the Comprehensive Nuclear-Test-Ban Treaty (which is still to enter into force) and a future Fissile Material Cut-Off Treaty (about which negotiations have not even begun), as well as potential new ones, such as limits on nuclear-armed cruise missiles. These important efforts could be starved of diplomatic oxygen thanks to the attention that will be devoted to the ban treaty. And, yes, the arrival of a ban is likely to make the NPT's difficult politics even more fraught, undercutting the authority of a vital treaty.

In other words, a ban will not reduce the role of nuclear weapons in the international system—except, perhaps, by reducing the credibility of U.S. extended deterrence. That, in turn, could have its own pernicious side effects, including undermining the security of the Baltic states, encouraging North Korean adventurism, and lending weight to calls for U.S. allies to embark on nuclear-weapons programs of their own. Such steps would make a world without nuclear weapons even more distant.

It was probably a mistake, in hindsight, for the United States to have reacted with such hostility to the humanitarian initiative—a series of meetings convened by states and NGOs, beginning in 2013, on the humanitarian impacts of nuclear weapons. Many of the participants in those meetings were driven by legitimate concerns, and the U.S. boycott of the first two conferences only served to increase their frustration. But when the humanitarian initiative turned explicitly into a movement for a ban treaty, it was not surprising to see the United States put high-level diplomatic pressure on states, especially its allies, to stay out—nor was it wrong for the United States to do so. The ban, to the extent that it succeeds, is an attack on core U.S. security interests.

This explains the apparent contradiction that ban-treaty advocates are fond of pointing out: how can the United States and its allies argue that the ban will be both ineffective and harmful at the same time? The answer is that two different things are being measured. The treaty will not bring the world closer to being free of nuclear weapons, but it might help deliver a world in which the nuclear underpinning of the U.S. alliance system is less secure.

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Perhaps this is not a bad thing, one might say—but it is very different from the universal norm that the ban is supposed to advance.

In one sense, the election of Donald Trump was a gift to the ban movement. U.S. extended deterrence seems less attractive when it is Trump's finger on the metaphorical red button. NATO, thanks in part to the U.S. president's own ill-advised words, is ripe with divisions to be exploited. What's more, the coming confrontation over Russia's alleged violation of the Intermediate-Range Nuclear Forces Treaty will require NATO to have some serious backbone—even if the United States does not respond with new nuclear deployments of its own, which hopefully it will not. If I were a Russian policymaker, I would be enthusiastically cheering on the ban movement in private, while maintaining an appropriately scornful tone in public.

A final risk should concern anyone who has a stake in the global nuclear order. The new U.S. administration may use the ban treaty as evidence that it is right in taking a dim view of the multilateral system as a whole. The ban is in danger of vindicating the worst stereotype of the UN: that it is both hostile to U.S. interests and terminally unserious. One can only hope that an administration that is yet to make nominations for dozens of key positions is simply too distracted to take much notice. But, in any case, the fight will soon be on to prevent a wholesale U.S. retreat from the daily business of multilateralism—not just on nuclear issues, but in all policy areas. A ban treaty will not help in that fight, and it might just do some harm.

<http://carnegieendowment.org/2017/03/15/real-problem-with-nuclear-ban-treaty-pub-68286>

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Union of Concerned Scientists (Cambridge, MA)

### **New START is a Winner**

By Stephen Young

U.S. military leaders continue to strongly support New START, the arms control treaty between the United States and Russia that limits each country to no more than 1,550 deployed, long-range nuclear weapons by 2018.

The problem is that President Donald Trump is apparently unwilling to listen to their sage advice.

Back on January 28, in his first phone call with Russian President Vladimir Putin, President Trump reportedly attacked New START, calling it a “bad deal.” It seems any agreement this president did not personally negotiate is a loser.

And that is unfortunate, because according to the Reuters report that broke the story, Putin had raised the possibility of the two countries using New START's built-in option to extend the treaty's life by five years. Such an extension is definitely in the US national security interest: From boots-on-the-ground inspections to detailed data exchanges, the treaty provides verification and predictability that US military leaders consistently desire.



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### **Strategic Commander is “Big Supporter”**

Just last week, Air Force Gen. John Hyten, who as commander of the U.S. Strategic Command is responsible for all U.S. nuclear forces, was asked about New START in a Congressional hearing. He testified:

“I’ve stated for the record in the past, and I’ll state again, that I’m a — a big supporter [of the treaty]. ... when it comes to nuclear weapons and nuclear capabilities, that bilateral, verifiable arms control agreements are essential to our ability to provide an effective deterrent.”

In the same hearing, Air Force Gen. Paul Selva, vice chairman of the Joint Chiefs of Staff, testified that when New START was considered by the Senate:

“the Joint Chiefs reviewed the components of the treaty and — and endorsed it. It is a bilateral, verifiable agreement that gives us some degree of predictability on what our potential adversaries look like.”

While it seems he doesn’t listen to military leaders like these, it not clear just who President Trump does listen to. Reuters reported the president stopped his call with Putin to ask someone unknown what the treaty was before telling the Russian leader that it was a bad deal.

And it doesn’t stop there. More recently, on February 23, the president repeated his criticism of New START, this time in an interview where he declared that the treaty is “a one-sided deal like all other deals we make. It’s a one-sided deal. It gave them things that we should have never allowed. ... Just another bad deal that the country made.”

### **New START passed a high bar for Senate ratification**

Before they can become the law of the land, treaties must pass a high bar: approval by two-thirds of U.S. Senate. The threshold was set to ensure that “bad deals” don’t happen. In the case of New START, 71 senators voted in favor of the treaty, including 13 Republicans. It became the first major arms control treaty negotiated by a Democratic president and endorsed by the Senate. Perhaps this, more than any other reason, is why President Trump dislikes the treaty.

But it took compelling reasons to get those 71 Senate votes, and then just as now, military leaders gave strong support to the treaty. Perhaps most compelling, seven former heads of U.S. Strategic Command wrote a letter to the Senate endorsing the treaty. After detailing several reasons why the treaty was in U.S. national security interests, the letter concluded, “The New START Treaty will contribute to a more stable U.S.-Russian relationship. We strongly endorse its early ratification and entry into force.”

While overall the U.S.-Russian relationship has deteriorated, the New START agreement has been one bedrock of constancy. That is what military leaders sought when the treaty was first negotiated, and why they still support it now. President Trump should start listening to their advice, and stop attacking New START. Instead, he should respond to Putin’s suggestion and extend the treaty by five years.

<http://allthingsnuclear.org/syoung/new-start-is-a-winner>

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Boston Review (Boston, MA)

## **Lessons from the Nuclear Freeze**

By Andrew Lanham

March 14, 2017

In the run up to the 1976 presidential election, Ronald Reagan was struggling. He lost the first six primaries to Gerald Ford. Then he discovered that stoking people's fears about the Soviet Union could win voters. He began making demonstrably false claims that America was falling behind in the nuclear arms race and that the Panama Canal Treaty then being negotiated would let communist forces encircle America. He soon started winning—in North Carolina, Texas, Indiana, Georgia—with the promise that he would save the country from its supposed downward spiral. Although he ultimately lost the nomination to Ford, who in turn lost the general election to Jimmy Carter, Reagan's discovery set the course for his successful 1980 campaign. As William F. Buckley, Jr., observed, Reagan's rhetoric and defense policy proposals hit on the fact that Americans were "tired of being pushed around."

Once in office, his administration's pronouncements about nuclear war flew fast and thick. Secretary of State Alexander Haig said that America had plans, if necessary, to fire a "nuclear warning shot" in Europe. National Security Council member Richard Pipes claimed that there was a 40 percent chance of nuclear war. FEMA director Louis Giuffrida declared in an interview on ABC that while "nuke war" would be "a terrible mess," it "wouldn't be unmanageable." In an October 1981 press conference, Reagan opined that it would be possible to use tactical nuclear weapons on specific battlefields without leading to an all-out nuclear war between the superpowers.

It was significant, then, when two years later his language of war had evolved dramatically. On October 10, 1983, Reagan watched an advance copy of the ABC made-for-TV movie *The Day After*, which depicts a global nuclear war as seen by a family living in Lawrence, Kansas. The film was "very effective and left me greatly depressed," Reagan wrote in his diary. "We have to do all we can to have a deterrent and see there is never a nuclear war." By 1984 Reagan's policy focus had shifted from preparing to win a nuclear war to trying to deter one. In his State of the Union address that year, he declared that "a nuclear war cannot be won and must never be fought." His moderation on nuclear weapons and support for arms control in his second term arguably helped end the Cold War.

What happened? Voters wanted a president with a muscular foreign policy, but they did not want nuclear war. That shared desire allowed the Nuclear Freeze Movement, a grassroots protest against Reagan's defense policies, to organize a broad, nonpartisan coalition around a single cause and bend Reagan toward arms control. Although the movement had mixed results in terms of direct legislative victories, its success at mobilizing the electorate to sway the course of a populist administration is a cause for optimism in the Trump era. The movement showed that a big-tent coalition, mobilized around highly visible and aggressive executive decisions, can change policy and win congressional elections, if not necessarily national ones.

In truth Reagan's nuclear policy differed little from his predecessor's, but his nuclear rhetoric broke sharply with U.S. precedents. Jimmy Carter had signed the 1980 Presidential Directive 59, which reaffirmed the longstanding doctrine that tactical nuclear weapons might be deployed on the battlefield in a so-called "limited" nuclear war. Carter also pushed forward the development of MX multiple-warhead ballistic missiles and increased defense

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spending by 5 percent above inflation. Reagan's plans were essentially the same. The left-leaning magazine *The Nation*, in an editorial four days after Reagan's inauguration evocatively titled "Protest and Survive," opined that "on the war-peace issue" there "was little to choose from" between Reagan and Carter. But *The Nation* also declared that Reagan's "record, his pronouncements, his program, his advisers and his instincts" made nuclear war more likely. Reagan's advisers included members of the radically hawkish Team B, who had helped spread false claims of Soviet military superiority in the late 1970s, including the fantasy that the Soviets were close to deploying laser weapons.

Reagan also followed through on his campaign promise to massively boost defense spending. He had guaranteed a 7 percent increase his first year in office, and he continued to expand defense funding by similar amounts in subsequent years. In 1985 the defense budget was twice the level it had been when Carter left office. The added spending (by a supposed fiscal conservative) nearly quadrupled the federal budget deficit.

Reagan's enormous defense spending during the 1982 recession, combined with his frank and frequent talk of nuclear war, sparked a backlash; his militarism appealed to some voters but inadvertently created breathing room for his political opponents. Protests against Reagan's foreign policy and defense budget soon coalesced in the Nuclear Freeze Movement, launched by the arms control researcher Randall Forsberg, which demanded a halt to nuclear proliferation.

This movement, of course, did not coalesce from thin air. Much of the initial energy of the Nuclear Freeze Movement was drawn from the longstanding antinuclear movement in America. Antinuclear advocacy had begun shortly after the bombings of Hiroshima and Nagasaki, when Albert Einstein started agitating against the weapons he had helped develop, and it continued in the work of such prominent figures as W. E. B. Du Bois, Linus Pauling, Ava Helen Pauling, Martin Luther King, Jr., and the leaders of the 1960s student movement. Those prominent voices were matched by action in the street (and the sea), from marches of Women Strike for Peace to swimmers trying to block Polaris missile-equipped submarines. After the Vietnam War, though, the peace and antinuclear movements largely dissipated. They had no spectacular cause around which to rally public support. Reagan's nuclear provocations provided one.

Forsberg proposed the nuclear freeze in December 1979 at a meeting of Mobilization for Survival, an antinuclear group backed by peace organizations, including the American Friends Service Committee, Clergy and Laity Concerned, and the Fellowship of Reconciliation. Forsberg's plan was enthusiastically received. In 1980 she published a manifesto, "Call to Halt the Nuclear Arms Race," and began building support from other peace and antinuclear groups. Support also came from Europe, where, in 1980, widespread protests erupted in London, Paris, Rome, and Amsterdam against the deployment of American missiles. The *Bulletin of the Atomic Scientists* published a special issue about the European protests in 1980 to try to inspire a similar American disarmament movement, and *The Nation's* 1981 "Protest and Survive" issue reprinted essays from British historian E. P. Thompson's 1980 collection of the same name.

To coordinate the various organizations involved in the freeze, movement leaders founded an umbrella group called the Nuclear Weapons Freeze Campaign. Randy Kehler, a draft and war-tax resister who helped inspire Daniel Ellsberg to release the Pentagon Papers that revealed the lies behind Vietnam, was chosen to lead the coordinating group. Though Kehler

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was a veteran of the activist left, the organization he was in charge of was deliberately located in St. Louis to give the movement a Middle America feel. The freeze movement emerged from the left, but it sought to use a simple message—a bilateral freeze on nuclear proliferation—to appeal across the political spectrum. After building its coalition of leftist domestic and international organizations, the movement aimed to broaden its support across partisan divides and to educate mainstream Americans about the nuclear threat with the goal of impacting the midterm congressional elections in 1982 and the presidential election in 1984.

In 1982 activists across the country, coordinated by Kehler and the Nuclear Weapons Freeze Campaign, started gathering signatures in support of a freeze on nuclear weapons testing, production, and deployment. They got nuclear freeze referenda placed on ballots in hundreds of towns and cities. Eight state legislatures, from Maine to Iowa to Oregon, passed freeze resolutions, and freeze referenda were passed by popular vote in nine states. Senators Edward Kennedy and Mark Hatfield proposed a federal freeze resolution. And polls showed widespread public support: in 1982, 38 percent of Americans did not trust Reagan to make the right decisions on nuclear policy, while 71–83 percent favored the nuclear freeze. A remarkable 45 percent said they supported even a unilateral freeze.

Reagan's militaristic temperament swept liberals, centrists, and even some conservatives into the Nuclear Freeze Movement. It brought together mainstream Democrats and Republicans with radical pacifists, retired admirals, generals, and CIA directors, veteran 1960s antiwar and antinuclear activists, atomic scientists, socialists, Hollywood celebrities, labor unions, big-business Democrats, feminist organizations, Christian groups (especially Catholics), balanced-budget hawks, and big-government progressives who wanted to redirect defense funding toward the welfare programs Reagan had slashed. Reagan denounced the movement as a Soviet plot, and a number of state and municipal bureaus of investigation infiltrated antinuclear groups to keep tabs on their politics. But while the Soviets did try to infiltrate freeze groups, the CIA and FBI found that they had failed to influence the freeze. As the *Washington Post* reported, "Although testimony showed the Soviets spent vast amounts of time and money on forged documents, planted agents and other active measures to try to influence events, . . . the FBI had testified that the efforts 'have had, at best, minimal impact on U.S. decision makers.'" In other words, the overwhelming majority of protesters were ordinary Americans who simply hated the prospect of nuclear war.

The movement's biggest display of strength was a march in New York City on June 12, 1982, that drew a million protesters; it was one of the largest public demonstrations in American history. Freeze organizations also built political action committees and lobbying apparatuses, which donated increasingly large sums to congressional campaigns across the 1980s. Public pressure toward arms control and against increased defense spending, crystallized by the freeze movement, helped Democrats add twenty-six seats to their House majority in the 1982 midterm elections. A freeze resolution was then passed in the House in 1983. Reagan, of course, won reelection in a landslide in 1984, and freeze activists saw his victory as a rebuke of their movement. Forsberg wrote that the election "left us reeling." The movement never fully recovered. But the millions of dollars donated by freeze-based groups moved the House toward arms control and helped Democrats regain the Senate in 1986, the first time they had held the chamber since 1980.

Despite these victories, the movement's outcome was ambiguous. Democratic and Republican politicians quickly coopted the language of freeze, turning grassroots protests in the street into backroom dealing in the Capitol. Unlike the protesters, the politicians were

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much more likely to compromise on the specifics of a freeze. The House resolution, for instance, contained numerous amendments meant to weaken the freeze, including a deadline for arms control negotiation with the Soviet Union after which, if negotiations had not been successful, the freeze would expire. Similarly freeze supporters in the House were still willing to back missile programs such as the MX (though they traded that support for Reagan's agreement with arms control). And the freeze coalition itself soon splintered as pacifists, socialists, mainstream liberals, and conservative defense hawks all demanded different degrees of arms control, disarmament, and defense budget reductions.

Reagan himself managed to coopt the freeze movement's rhetoric and thereby defused public protests. At the height of the freeze movement in 1982 and 1983, Reagan and his allies had cast it as a danger to national security and even as Soviet-inspired sedition—the same charge that had been leveled at antinuclear activists since Du Bois faced McCarthy-style blacklisting in 1951. But Reagan soon recognized the public energy behind arms control and shifted his rhetoric and principal policy aims toward deterrence—though he still deployed MX missiles while negotiating the START II treaty that eventually banned such multiple-warhead weapons.

The centerpiece of Reagan's shift toward deterrence was his infamous Strategic Defense Initiative—also known as Star Wars—which was announced in March 1983. Leftist activists were appalled by the Star Wars proposal. (And the computer-generated graphics Reagan used to illustrate it do look absurd today. How did we believe we were going to use lasers to shoot down nuclear missiles when even our CGI capability was so limited?) But in some ways Star Wars marked an important drawdown in Cold War tensions, a change in posture from offense to defense.

It was also a victory for the Nuclear Freeze Movement. If Reagan had previously shown a cavalier willingness to launch a nuclear war, he now spoke of avoiding war and emphasized peace. Where before his administration had said that nuclear war was “manageable,” in his 1984 State of the Union address, Reagan reached out to the “people of the Soviet Union” to say: “Americans are people of peace. If your government wants peace, there will be peace. We can come together in faith and friendship to build a safer and far better world for our children.” Even if he did not act like it (see: Iran–Contra), he sounded like those left-wing peaceniks. Protesters had tempered Reagan's militarism, and the defense budget would shrink every year after 1985.

Moreover the pressure toward arms control in the Democratic House and Senate, combined with Reagan's new rhetoric, created space for détente with Mikhail Gorbachev, who became general secretary of the USSR's communist party in 1985. As Gorbachev and Reagan worked together on arms control, it gave Gorbachev room to maneuver domestically in Russia as well, since American missiles were less of a looming threat than they had been when Alexander Haig was talking about nuclear warning shots. With reduced foreign policy pressures, Gorbachev propelled political reform in the Soviet Union and across the Eastern Bloc. Those reforms eventually broke up the USSR and began what now looks like an interwar period in the 1990s.

Much as Reagan's militarism became a rallying point for the opposition in the 1980s, Trump's belligerent foreign policy and his hyperbolic threats to use military force, both domestically and abroad, may be one of the most efficacious targets for resisting his agenda. Like Reagan, Trump campaigned on fear tactics, calling Democrats soft on terrorism and

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stoking anxieties about what he pointedly labelled “radical Islamic terrorism.” His executive order blocking immigration from seven (now six) Muslim-majority nations in the Middle East represents a shift in the ongoing War on Terror toward a war against Islam itself. The backlash against Trump’s ban has already shown the power of what citizen protest can do.

The protesters who swarmed to airports across the country to decry the ban were, implicitly and explicitly, rejecting Trump’s expanded war footing. The protesters not only asserted an alternative vision of American identity that is fundamentally open to immigration, they also asserted a vision of American foreign policy in which Islam does not represent a monolithic enemy in a grand clash of civilizations. The airport protests were a kind of foreign policy debate carried out in the streets.

This groundswell of protest directly changed the behavior of elected officials, from Democratic senators who reevaluated their legislative strategy to Republican Senators Lindsey Graham and John McCain, who released a statement blasting Trump’s executive order—even to Trump himself, who at least partially reorganized White House decision making to avoid similar fiascos in the future. When it came to Trump’s ban, much as in the case of the nuclear freeze, grassroots protest politics drove formal political decision making in Washington.

One lesson of the Nuclear Freeze Movement is that when a right-wing populist wins the presidency by promising a tough attitude, the easiest way to fight back is not by picking away at the details of all his policies, but by clearly articulating a few basic ways in which his policies threaten people’s well-being. The airport protests did just that. The idea of immigrants, including elderly grandparents, being forcibly detained on U.S. soil spectacularly made visible the militarism, authoritarianism, and white nationalism of Trump’s worldview. That spectacle generated an effective protest movement in response. The political opposition to Trump would do well to continue using such symbols that easily sum up the many issues on which he sits far outside the public consensus.

For example, Trump wants to massively boost defense spending while slashing healthcare, a pairing that makes visible his lack of actual concern for the working class. Similarly, Trump’s immigration ban, his calls for nuclear proliferation, and his desire to renew torture capture his casual relationship with violence and the ways in which his policies will destabilize international relations, making Americans complicit in forms of brutality that they do not on the whole support. By pointing to these real human costs of Trump’s tough talk, progressives can bring into focus the wider dangers of Trump’s worldview and articulate their own alternative vision of a government that aids the forgotten and oppressed. The Nuclear Freeze Movement, Randall Forsberg reflected in the *Boston Review* years later, succeeded in the 1980s because there was a clear and present danger of mass violence. Public support for arms control waned in the 1990s because the collapse of the Soviet Union removed that danger. Trump’s America First foreign policy once again offers a clear threat of massive state violence across a range of interlinked issues that can and should generate a strong opposition coalition.

Coalitional politics can be tricky. The Nuclear Freeze Movement had limited legislative success partly because it attempted to be thoroughly bipartisan—Senator Hatfield, for instance, who co-sponsored the freeze resolution, was a Republican. This meant that freeze groups did not coalesce behind a Democratic bloc that would vote broadly against Reagan’s agenda. On the other hand, Walter Mondale, who ran against Reagan in 1984, supported the freeze but differed only somewhat from Reagan’s overall defense policies, as Carter had in 1980. For leaders of the nuclear freeze, Mondale was their fourth choice among candidates





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in the Democratic primary. Today, though, the extreme partisan polarization in America means that the anti-Trump opposition can both build bipartisan support against the violence and the global chaos of his America First foreign policy and still present a strong progressive alternative to Trumpism in the 2018 midterms and the 2020 presidential contest.

A debate over America's identity and direction is taking place right now through participatory democracy in the streets. If the progressive opposition to Trump can maintain its grassroots energy, hold its leaders in Congress accountable to their base, and build bipartisan support on key foreign policy issues such as the immigration ban, torture, and nuclear nonproliferation, this citizen movement can shape policy and win elections. Reflecting on her decades of antinuclear activism, Forsberg wrote in 2002 that getting citizens involved in national security decisions is "an incredibly difficult undertaking." "Yet," she concluded, "democratic control in this area is essential to the full development and flowering of democratic institutions, and equally essential to the safety and well-being of ordinary citizens here and throughout the world." The widespread rejection of Trumpism by citizens across the country, who are demanding accountability and change, is an important step in reenergizing and expanding American democracy. The fight, as Forsberg put it, will be long and incredibly difficult. But if the past is any guide, these everyday activists from all walks of life can win.

<https://bostonreview.net/politics/andrew-lanham-lessons-nuclear-freeze>

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38 North (Washington, DC)

### **Understanding North Korea's Nuclear Coercion Strategy**

By William McKinney

March 15, 2017

North Korea's Supreme Leader, Kim Jong Un, proclaimed during his annual 2017 New Year's address that the DPRK military is in the "final stages in preparations to test-launch an intercontinental ballistic rocket." A North Korean intercontinental ballistic missile, or ICBM, would be capable of threatening the continental United States. As a counter-response, the United States and its allies in Northeast Asia, the Republic of Korea (ROK) and Japan, have forcefully condemned the frequent missile tests by the Democratic People's Republic of Korea (DPRK), particularly when coupled with a nuclear test, as clear signals of the North's threatening stance toward the alliances and even the US homeland. In this vein, US Defense Secretary Jim Mattis promised an "effective and overwhelming" response to any use of nuclear weapons against America or its allies, delivering a firm message to North Korea.

And the Trump administration is in the process of conducting a comprehensive North Korean policy review, with all options on the table.

Bellicose statements, such as in Kim's address, and provocative North Korean actions including the recent missile launch toward Japan, are manifestations of the DPRK's coercive nuclear diplomacy. Strategically, the main coercive objective focuses on forcing the United States to abandon the two key principles underpinning its longstanding commitment to the

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“complete, verifiable and irreversible denuclearization” (CVID) of North Korea’s nuclear program—the overriding goal of US policy toward the DPRK.

The first principle reflects the US refusal to acknowledge the North as a nuclear power and resistance to substantial improvements in relations with Pyongyang until it first undertakes significant steps to freeze and dismantle its nuclear and ballistic missiles programs. The second principle embodies Washington’s continued preference for negotiating a multilateral diplomatic solution to the North Korean problem within the framework of the Six-Party Talks (6PT), while maintaining strong alliances with Japan and South Korea and improving relations with China and Russia.

North Korea seeks to collapse Washington’s commitment to these principles by:

Forcing the US to abandon the strategy of “strategic patience.” By demonstrating its resolve and capacity to make continuing improvements in its missile and nuclear capabilities, Pyongyang shows that strategic patience has not worked. North Korea’s determined efforts to evade and mitigate the effects of sanctions, to deflect pressure and threats, and to end its isolation are all integral to these efforts.

Changing the dynamics of security talks. North Korea sees improvements in its nuclear weapons capability as a way to shift the format and dynamics of regional security talks in its favor. Instead of five countries arrayed against it in the Six-Party Talks, Pyongyang hopes to leverage its nuclear status to gain a more equal footing with the United States. Further, the North uses its relationships with China and Russia to strengthen its negotiating position vis-à-vis Washington. Finally, and maybe most importantly, acknowledging North Korean membership in the “nuclear club” serves to marginalize the ROK and Japan among 6PT participants.

Elevating its status. Possession of nuclear weapons strengthens North Korea’s hand in Northeast Asia and elevates its status in the world as one of a handful of countries that possesses nuclear weapons and ballistic missile capabilities. While many see the North as a rogue nation because it continues to violate UN Security Council resolutions and flouts the Nuclear Nonproliferation Treaty (NPT) in the face of strong opposition from the international community, numerous other states either openly or quietly admire it for such independence.

Leveraging greater security and economic benefits. Past North Korean brinkmanship has led to offers of engagement and assistance from countries that want to bolster regional stability. North Korea has seen that its threatening actions can compel concessions from its opponents as well as extract diplomatic and monetary gains. It appears that Kim Jong Un is continuing this pattern of coercive diplomacy.

Driving wedges between its opponents. In the past, the DPRK has experienced some success in driving wedges between divergent US and ROK policy positions. Depending on the outcome of this year’s presidential election in South Korea, the North may find ample opportunity for wedge driving. However, the DPRK’s coercive strategy is vulnerable to being over-played, and in the hands of a young and relatively inexperienced leader there is an even greater likelihood of blowback from South Korea and China.

So what options do the US and its allies have to counter the DPRK’s coercive strategy?

**Maintain the status quo:** The response of the United States and its allies to North Korean provocations—more sanctions, more appeals to China to pressure Pyongyang, and tougher rhetoric—and the results have become very predictable. It is likely that the North’s



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decision-making calculus has anticipated—and discounted the importance of—these responses, which only reinforce the North’s negative behavior. In addition, these responses provide further proof to Pyongyang that its nuclear coercion strategy is working. In short, there really is no upside to business as usual and plenty of downsides.

**Expand and strengthen allied defenses:** The US, ROK and Japan could take additional measures to protect and defend against a heightened North Korean missile and nuclear threat (e.g., testing of the long-range KN-08 or KN-14 missiles and highly accurate, short-range SCUD missile). Yet, even with increased US focus on ICBMs, highlighted by increased US-ROK-Japan trilateral missile defense, there should be no expectation it will bring about a significant change in the DPRK’s nuclear coercion strategy. More likely, it will harden it.

**Undertake kinetic military action:** Focused and proportional kinetic US-ROK military action in response to a North Korean provocation could effectively counter the DPRK’s coercive nuclear strategy, and alter its behavior by sending the message to Pyongyang (and Beijing) that Pyongyang’s strategic nuclear weapons and missiles are destabilizing. A kinetic response could signal to Kim Jong Un and other potential adversaries (e.g. Iran) that the US will not allow itself to be threatened. But, and a big but, such US-ROK military action would entail significant risk to the US and its allies, ranging, for example, from a West Sea warship battle or island shelling to an attack on a DMZ guard post to long-range artillery shelling of Seoul.

**Demonstrate our Extended Deterrence strategy:** Another possible and less risky course of action would be an unambiguous demonstration of US extended nuclear deterrence capability, such as strategic nuclear capable aircraft temporary deployments to Korea, which would be viewed as credible by the DPRK. However, such a demonstration would need to be carefully considered both strategically and operationally. This demonstration would have to involve a much-needed “shot across the bow” of the North to establish its credibility, not only with the North but also with Korea and Japan.

**Seek broader engagement with the DPRK:** Ending or neutering the North’s nuclear coercion strategy will ultimately require a genuine US-ROK combined effort to address North Korea’s security concerns. This will require a concerted effort to “normalize” North Korea through game-changing engagement, and employing a full set of tools in a concerted and coordinated fashion to support a US-ROK plan with well-defined and reasonable end states. Such an approach offers a more positive direction for both US-ROK relations and their relations with the DPRK than the present strategy, which relies on sanctions and isolation to force the North’s preemptive capitulation.

In conclusion, the North is pursuing a strategy to force the United States and South Korea to abandon their policies of minimal engagement with and isolation of the DPRK. US military efforts, both strategic and operational, are required to address the worsening North Korean nuclear threat, but are likely to further cement DPRK hard line positions. Moreover, kinetic action could alter the North’s behavior but only at significant risk to the US and its allies. A safer and equally effective course of action would be an unambiguous demonstration of credible US extended nuclear deterrence.



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Ending the DPRK nuclear coercion strategy, however, will require a genuine effort to address Pyongyang's security concerns within the broader framework of normalizing US-ROK relations with North Korea.

<http://38north.org/2017/03/wmckinney031517/>

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The Japan Times (Tokyo, Japan)

## **Trump Administration Opposes Japan's Participation in U.N. Talks on Banning Nukes**

Author Not Attributed

March 16, 2017

The U.S. administration of President Donald Trump has taken a hard line on Japan's possible participation in U.N. talks later this month on a treaty to outlaw nuclear weapons, sources close to bilateral ties said Wednesday.

In conveying its opposition, Washington has used an expression indicating its strong aversion, the sources said. Japan has not made clear whether it will join the talks starting March 27 at the U.N. headquarters in New York.

While advocating a world free of nuclear weapons as the only country ever attacked with atomic bombs, Japan also relies on U.S. nuclear deterrence for protection.

Japan is expected to make a final decision soon following Foreign Minister Fumio Kishida's talks with U.S. Secretary of State Rex Tillerson on Thursday in Tokyo, the sources said.

At their first meeting last month, Kishida and Tillerson discussed the nuclear weapons ban treaty, prompting working-level officials from both sides to exchange views on the matter, they said. It was during the process that Washington expressed its opposition to Japan participating in the U.N. talks, they said.

Some close to Prime Minister Shinzo Abe believe Japan should not join the talks, given the importance Tokyo attaches to its alliance with the United States, the sources said. As a lawmaker elected from Hiroshima, Kishida has pushed for participation in the talks.

There is concern within the Japanese government that participation in the talks will hurt the alliance with the United States in the medium to long term, especially as Abe and Trump reaffirmed the U.S. commitment to use nuclear weapons to deter attacks against its allies at their summit last month, a senior Japanese official said.

The Trump administration's stance on the treaty is "more severe" than the preceding administration under Barack Obama, the official said.

A U.S. government source, meanwhile, said the United States has been consistent in its stance against allies taking part in the negotiations on the treaty for abolishing nuclear weapons.

A landmark resolution endorsed by the U.N. General Assembly on Dec. 23 paved the way for the start of talks on the treaty.

Of the five recognized nuclear weapons states, the United States, Britain, France and Russia are opposed to the treaty and will not join the talks, while it is uncertain whether China will take part.

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Anti-nuclear nongovernmental organizations and Japanese groups of surviving victims of the 1945 atomic bombings have urged the Japanese government to join the talks in a bid to realize the abolition of nuclear weapons.

<http://www.japantimes.co.jp/news/2017/03/16/national/politics-diplomacy/trump-administration-opposes-japans-participation-u-n-talks-banning-nukes/#.WMnlCS3lvBI>

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World Politics Review (Washington, DC)

### **The Risks of a Silent U.S. Cyberwar Against North Korea's Weapons**

By Andrew Futter

March 15, 2017

Last week, The New York Times reported that the United States had secretly stepped up cyber attacks against North Korea's missile program during President Barack Obama's second term. The attacks were initially a success, according to the Times. "Soon a large number of the North's military rockets began to explode, veer off course, disintegrate in midair and plunge into the sea."

Whether or not a series of test failures in recent years were the direct result of U.S. cyber interference, as the Times suggested, North Korea's nuclear weapons program is a prominent target for U.S. cyber warfare—and President Donald Trump is now at the helm of that campaign. Tensions are rife on the Korean Peninsula and throughout Northeast Asia, as suspicions mount that another North Korean nuclear test may be on the horizon and Kim Jong-un's regime continues to work unabated on a long-range missile with the capability to reach the continental United States. In this climate, is cyberwar the best strategy?

The situation may be as serious as any time since North Korea left the Nuclear Nonproliferation Treaty in 2003 and conducted its first nuclear test in 2006. For the past decade, the race has been on to manage the emerging security threat through a mixture of diplomacy—principally through the so-called six-party talks, with China, Japan, North Korea, Russia, South Korea and the U.S.—and ramping up military assets in the region, particularly the deployment of ballistic missile defenses. But the apparent move toward using cyber weapons against the North marks an important shift in policy—one that may change the security situation considerably, though not perhaps in the best interests of the U.S. or its regional allies in the long run.

The move toward utilizing cyber attacks against North Korea's nuclear and missile programs is likely part of a full-spectrum U.S. missile defense strategy aimed at defending against, delaying and attacking all aspects of the North Korean nuclear threat. Mention of this new expanded missile defense policy has slowly emerged from the Pentagon in recent years, before the Times reported on its boost under Obama.

The idea seems to be to augment kinetic missile interceptors with new and exotic "left of launch," nonkinetic capabilities such as cyber attacks. "Left of launch" is a military term that refers to disabling ballistic missile threats before they are launched.

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This new cyber strategy is a result of two key dynamics. First, an increasing desire to utilize cyber-attack capabilities and malware as a component of national security policy and now, it seems, for missile defense. Second, an accompanying realization that many of the other policies designed to prevent, limit and now protect against a North Korean nuclear armed missile have either failed or are far from perfect.

Of course, this comes with plenty of risks and challenges. Hacking into an opponent's nuclear and missile systems is difficult, and depends on several often-contingent variables. As the Stuxnet attacks against Iran's nuclear enrichment program showed, such operations likely involve months of planning, huge expense, highly specific intelligence—and a way into the network or weapon system. It also requires knowledge of the systems to be attacked, particularly the extent and type of software or hardware being used. All of this, finally, must be carried out in secret. Discovery would not only mean that the plan had failed, but could even be interpreted as an act of war. That's why the perceived benefits of using cyber operations against North Korea must be balanced against both the difficulties involved and the risks of discovery.

More broadly, while the use of electronic measures against North Korea's missile and nuclear program might at first seem like a good idea, enhancing security and minimizing risk, there are several significant trade-offs with this approach. First, because cyber attacks and other "left-of-launch" operations will almost certainly rely upon prior infiltration of North Korean systems, it shifts the missile defense mission conspicuously from defense to pre-emption, marking a notable shift in strategy.

Second, it is questionable how sensible it is to mess around with sensitive and often complex systems such as those that control nuclear weapons and missiles given the possibilities of accidents, miscalculation and unintended launches or explosions.

Third, such capabilities are far less tangible than the deployment of physical missile defense interceptors. Since it is much more difficult to identify the targets of cyber operations and the capabilities being used, it will be far harder to convince America's strategic competitors, such as Russia and China, that the same capabilities might not be used against them, too. This may be particularly important given the role of China in addressing the threats posed by North Korea.

Fourth, the use of electronic attacks in this way creates a dangerous precedent that such actions are a normal part of international relations, thereby legitimizing the conduct of such operations by others. Finally, linked to that, it is highly likely that the U.S. could become vulnerable to such cyber threats in the future—particularly as it modernizes its own nuclear weapons infrastructure.

What all this suggests for the Trump administration is that it ought to think long and hard before continuing and expanding the use of cyber attacks against North Korea's nuclear and missile systems or those of any other enemy. While there may certainly be some short-term military, psychological and political benefits, it is far from clear that the U.S., its nervous Asian allies or the broader global community will benefit from the establishment of this new norm in the long run. This kind of cyberwar might even open a Pandora's box to a new era of nuclear threats

[www.worldpoliticsreview.com/articles/21534/the-risks-of-a-silent-u-s-cyberwar-against-north-korea-s-weapons](http://www.worldpoliticsreview.com/articles/21534/the-risks-of-a-silent-u-s-cyberwar-against-north-korea-s-weapons)

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The Asahi Shimbun (Tokyo, Japan)

### **China premier calls for return to talks on Korean nukes**

Author Not Attributed

Chinese Premier Li Keqiang called Wednesday for new talks to reduce tensions on the Korean Peninsula, ahead of a visit to the region this week by U.S. Secretary of State Rex Tillerson that is expected to focus heavily on efforts to end North Korea's nuclear weapons and missile programs.

Li said China was a strong supporter of U.N. resolutions aimed at nudging the North toward ending its programs, and had "fully complied" with economic sanctions on Pyongyang.

He acknowledged the rising tensions on the Korean Peninsula and northeast Asia in general, saying any conflict would be disastrous for all sides.

"So what we hope is that all the parties concerned will work together to deescalate the situation, get issues back on the track of dialogue and work together to find proper solutions," Li said at his annual news conference held on the final day of the annual legislative session.

China is Pyongyang's most important diplomatic ally and economic partner, and has been under growing pressure from the United States to use its influence to rein in actions by the North seen as provocative.

China has long urged a resumption of six-nation denuclearization talks on hold since North Korea withdrew from them in 2009, and says its leverage over Pyongyang is limited. Despite that, China last month suspended imports of North Korean coal for the rest of the year, depriving Kim Jong Un's regime of a crucial source of foreign currency.

Tillerson arrives in Beijing on Saturday following visits to U.S. allies Japan and South Korea.

Complicating his mission to Beijing are China's strenuous objections to the initial deployment to South Korea of a U.S. missile defense system that have strained relations between Seoul and Beijing and sparked a snowballing economic boycott against South Korea among some Chinese.

In addition to assuaging China's concerns, Tillerson will also seek to arrange a much-anticipated visit by President Xi Jinping to the United States.

Tensions have escalated over North Korean moves to accelerate its weapons development. The North conducted two nuclear tests and 24 ballistic missile tests last year, deepening concern in Washington that it could soon develop a nuclear-tipped missile capable of reaching the U.S. mainland.

Last week, North Korea launched four missiles into the ocean off Japan as the United States and South Korea began annual drills. The allies call the drills routine. Pyongyang regards them as an invasion rehearsal.

Hoping to kick-start discussions, Chinese Foreign Minister Wang Yi last week suggested that North Korea might suspend its nuclear and missile activities in exchange for a halt to the joint U.S.-South Korea drills.

The United States swiftly dismissed the proposal and Li did not repeat it.

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However, the premier did indicate that China was growing weary of the constant tensions and threats of conflict surrounding its formerly close communist neighbor.

"It's just common sense that no one wants to see chaos on his doorstep," he said.

<http://www.asahi.com/ajw/articles/AJ201703160012.html>

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The Diplomat (Tokyo, Japan)

## **Russia's Air Force to Receive 17 New Su-30 Fighter Jets in 2017**

By Franz-Stefan Gady

March 14, 2017

*The latest variant of the heavy multirole fighter aircraft remains the mainstay of Russia's fighter force.*

The Russian Air Force is slated to receive 17 Sukhoi Su-30SM multirole fighter jets, classified by Russian military authorities as 4++ generation fighter aircraft, in 2017, according to a press statement by Russia's deputy defense minister, Yuri Borisov, while visiting the aircraft's manufacturer Irkutsk Corporation on March 9.

"Long-term contracts have been concluded with this plant. This year it is expected to deliver 17 Sukhoi-30SM planes and ten Yakovlev-130 planes," Borisov said, according to TASS news agency. In April 2016, Russia's Defense Ministry and Irkut Corporation concluded a contract for the procurement of over 30 Su-30SM fighter aircraft by the end of 2018.

The Russian Air Force and Navy currently operate approximately 40-50 Su-30SM aircraft. Initially, the Russian military expected 60 new aircraft of the type the end of 2016, yet it is unclear how many new fighters jets have in fact joined the service. The Russian Ministry of Defense intends to induct a total of 90 Su-30SMs, according to various contracts concluded since 2012 as part of Russia's 2011-2020 State Armament Program.

"The Su-30SM is a multipurpose aircraft and armed with bombs, air-to-air, anti-ship, and land attack missiles," I explained elsewhere. "It can be deployed as an air superiority fighter, engage naval surface vessels, or conduct land attack operations." A number of Su-30SMs have been engaged in bombing missions or acted as escorts for other Russian military aircraft in Syria.

Furthermore, I noted:

*The Su-30SM is based on the Su-30 MKI export version, an aircraft jointly developed by Russia with Hindustan Aeronautics Limited for the Indian Air Force. However, the two-seat SM is a localized variant of the MKI and unlike the latter does not contain Israeli and French avionics. It retains, however, the same airframe made of titanium and high-strength aluminum alloys and also features the MKI's AL-37FP thrust-vectoring engines among other things.*

When fitted with extra tanks, the aircraft's range without refueling is approximately 3,000 kilometers.

On March 10, the Russian deputy defense minister also announced that the Russian Air Force will receive 16 new Sukhoi Su-34 fighter-bombers as part of an order placed by the Ministry of Defense for 92 aircraft. "This year, we expect above the plan supplies of four aircraft, and the overall amount of order for this year is 16 Su-34," Borisov said.

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In addition, Borisov stated that upgrades of older variants of the Su-34 will kick off in 2018. “The program of Su-34’s modernization is scheduled for 2018. We discussed with the leadership of the plant and the United Aircraft Corporation the plans of work on the aircraft as part of the future state arms program for 2018-2025.”

<http://thediplomat.com/2017/03/russias-air-force-to-receive-17-new-su-30-fighter-jets-in-2017/>

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The Guardian (London, UK)

### **Russia's Violation of a Nuclear Treaty is a Direct Threat to Europe's Security**

By Sen. Ben Cardin

March 15, 2017

*Russia has been systematically undermining the security arrangements that peacefully ended the Cold War. This puts Europe in danger.*

Russia is once again placing Europe in the shadow of a potential nuclear conflict. Last week in testimony before Congress, US military officials confirmed that Russia has taken another step in shredding Europe’s security defenses by covertly deploying a land-based cruise missile capable of targeting the continent with nuclear weapons. Russia’s deployment of this system is in direct violation of the Intermediate-Range Nuclear Forces (INF) Treaty – and endangers America’s closest allies.

Since World War II, Americans have increasingly come to understand that our security is directly tied to a stable and secure Europe. The greatest threat to Europe’s security today is Russia, which under President Putin’s leadership has been systematically undermining all of the security arrangements that peacefully ended the Cold War.

The cruise missile system Russia has deployed is particularly dangerous and destabilizing. It allows Russia to rapidly target Europe with nuclear forces, providing NATO with almost no warning time to determine if an attack is occurring.

Avoiding this type of situation is exactly why President Reagan and President Gorbachev signed the INF treaty in 1987, which barred the United States and the Soviet Union from fielding nuclear capable ground launched missiles with ranges between 500 and 5,500 kilometers, ending the superpowers’ nuclear confrontation in Europe.

The United States and our European allies face multiple challenges in formulating an effective response to the threat posed by Russia, including its violation of the INF treaty. We need to take defensive measures to protect ourselves and our allies from Russian aggression, but we must do so in a manner that maintains the rules based order that bolsters European and ultimately American security. In addition, we should make clear to the international community that Russia is in violation of its treaty obligations, despite its efforts to cover up and deny its nefarious activities.

I believe four principles should guide American action in response to Russia’s violations of the INF treaty.

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First, the United States should closely coordinate any response with our European and Pacific allies and partners. Although the INF treaty is effectively a bilateral agreement between the United States and Russia, it has a profound impact on our allies' security. Russia's new ground based cruise missile is a direct threat to our European allies and potentially our allies in the Pacific.

Second, the United States should not precipitously withdraw from or violate the INF treaty. Some of my colleagues have suggested the United States should immediately begin building an INF range system and punish Russia by withdrawing from other arms control agreements. This would be serious mistake. Maintaining a united front with our allies requires a policy that focuses squarely on Russia's violations and the threat these violations pose to Europe. Unilateral actions in violation of the treaty could shift blame onto the United States and would cause our NATO allies to question our own commitment to Europe's security.

Third, the United States must directly confront Russia about this violation. In November, the United States convened the first session since 2003 of the INF treaty dispute mechanism, the Special Verification Commission (SVC). During this meeting, Russia continued to insist it is not in violation of the treaty despite the evidence the United States presented regarding testing.

Russian deployment of the prohibited cruise missile warrants another SVC session. At the meeting, the United States should present our new evidence and declare Russia in material breach of the treaty. In addition, we should consider issuing an ultimatum providing Russia with a deadline when we expect them to return to compliance, detailing that a failure to do so would instigate a series of measures in response that would improve our European deterrence and defense capabilities.

Finally, the United States and NATO should immediately put in place defensive measures to negate as much as possible the threat from Russia's new ground based cruise missile system until they correct course. The deployment of a ground-based cruise missile provides Russia with a new capability to threaten NATO bases and ports. The United States should consider new missile defense deployments to Europe including overhead sensors specifically designed to detect cruise missiles, additional Patriot missile defense batteries, and Short-Range Air Defense.

Russia's deployment of these missiles is a serious threat to the United States and our allies. Unfortunately, our preferred solution to this situation – Russia coming back into compliance with the INF treaty – appears increasingly unlikely. Using this as an excuse to abandon all arms control efforts with the Russian Federation is a serious mistake. Instead, we must take decisive action to confront Russia about its treaty violation, while enhancing our defensive security measures so that we can protect our own security and the security of our allies.

<https://www.theguardian.com/commentisfree/2017/mar/15/russias-violation-of-a-nuclear-treaty-is-a-direct-threat-to-europes-security>

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Carnegie Europe (Brussels, Belgium)

### **An EU Nuclear Deterrent Won't Serve Western Interests**

By John Deni

March 10, 2017

*Talk of a European nuclear deterrent might be welcome in Washington, but such a scheme would do very little to help Europe tackle the biggest challenges it faces.*

Since the November 2016 U.S. elections, there has been a great deal of discussion in Europe over how Europeans need to take more responsibility for their security and defense, including by developing an EU nuclear deterrent. This is probably welcome news to U.S. President Donald Trump's administration, which has placed increased emphasis on more equitable burden sharing and may not be overly concerned about the spread of nuclear technology among U.S. allies.

Although European deliberations over how to better provide for European security are positive, an EU nuclear deterrent wouldn't solve inequitable burden sharing. In fact, it would do virtually nothing to enable Europe to deal with today's most likely, most compelling security challenges on the continent and beyond.

Trump made clear his support for the transatlantic alliance in his February 28 address to a joint session of the U.S. Congress, during which he noted, "We strongly support NATO." Just over a week earlier, some of the most senior members of the administration, such as Vice President Mike Pence and Defense Secretary James Mattis, made similar statements at the Munich Security Conference, an annual gathering of policymakers, diplomats, and defense experts in Germany.

Despite these seemingly unequivocal reassurances, there remains concern in Europe over the constancy of America's commitment under Trump. Part of this anxiety may simply be the occasional hand-wringing that comes with being the junior partner in any alliance. But continuing European unease over the U.S. commitment is also likely based on fears that some in the White House, perhaps even the president, are not terribly supportive of the liberal international order generally and the EU specifically. Further concern may stem from the still-uncertain outlines of U.S. policy toward Russia under the new administration.

As a result, some Europeans are beginning to ask what more they can and should do for themselves. One topic that is attracting a great deal of attention, particularly in Germany and especially given concerns over the steadfastness of America's extended deterrent, is a European nuclear force. Because of Britain's pending withdrawal from the EU and the near-unanimous opposition in Germany to a German nuclear capability, an EU nuclear force would likely be based on the French national nuclear deterrent. Assuming the French would somehow share their deterrent in an EU framework, it seems clear that Germany and other leading EU states would have to contribute substantial defense funds toward a so-called Eurodeterrent.

From Washington's perspective, discussion of a Eurodeterrent presents both good and bad news. On the asset side of the ledger, anything that spurs European allies to take on greater international responsibility in the world is welcome. This is particularly so given the high likelihood of an internally focused EU over the next couple of years. Although the union's

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bureaucracy is vast and immensely capable, it is reasonable to expect Brexit negotiations to consume not only time but also significant energy and attention.

At the same time, the EU continues to struggle with immigration and border enforcement, which may ultimately undermine one of the EU's most valuable and most significant achievements: visa-free travel within most of Europe. These twin challenges will mean the EU's Brussels-based institutions and member states have less bandwidth for broader security concerns in Europe and beyond. However, by broaching the subject of whether Europe needs an independent nuclear deterrent, European allies have made clear to Washington that they take their security seriously.

That said, an independent nuclear deterrent would represent an enormous financial liability at a time when most European allies—including large countries like Germany and Italy—are struggling mightily to reach NATO's goal for members to spend the equivalent of 2 percent of GDP on defense. It's already clear that the high cost of maintaining the French national nuclear deterrent has prompted calls for Paris to give up the jet aircraft leg of its nuclear dyad and instead rely solely on submarines. For this reason, some in France might welcome German funding, but in any case, maintaining a modern, capable Eurodeterrent would present participating allies with additional, new defense bills that they are ill prepared to swallow.

Since European defense spending has bottomed out and begun an uneven but broad-based rebound in recent years, there are far more useful priorities for additional funding. Plowing more funds into unmanned systems, combat aviation, rotary lift aircraft, intelligence, surveillance, reconnaissance, training and readiness, and additional manpower would result in capabilities and capacity far more useful for serving European interests than a Eurodeterrent that likely—and hopefully—would never be used.

Put another way, Europe doesn't have the luxury of being able to afford defenses against both the most catastrophic and the most likely security challenges. Because the needs across many areas are so great, allied leaders must ruthlessly prioritize their defense and security requirements, even in an era of expanding defense budgets.

In the short run, those needs center on conventional capabilities that can most effectively deal with Russia's gray zone tactics as well as counter the self-proclaimed Islamic State and other violent extremist organizations with transnational reach. It's difficult to see how a European nuclear deterrent could be employed against little green men or a returning foreign fighter.

<http://carnegieeurope.eu/strategieurope/68242>

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The National Interest (Washington, DC)

## **Russia's Most Powerful Nuclear Attack Submarine Ever Is Almost Ready for Sea**

By Dave Majumdar

March 15, 2017

Russia is set to launch its second Yasen-class nuclear-powered attack submarine on March 30. Called Kazan, the new vessel is an upgraded Project 885M design that is in many ways much more capable than the lead ship of the class, K-560 Severodvinsk.



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"Kazan is expected to be rolled out and put afloat on March 30," a Russian defense source told the Moscow-based TASS news agency.

The Russian Navy will take delivery of Kazan in 2018. Once the vessel is operational, she will be the most formidable enemy submarine that the U.S. Navy has ever faced. "It's probably the most capable nuclear powered submarine out there fielded by a potential adversary," Center for Naval Analyses Russian military affairs specialist Michael Kofman told The National Interest.

Indeed, Kazan is expected to be substantially improved over her older sister, the Severodvinsk. The vessel incorporates new technological developments that have emerged since Severodvinsk started construction in 1993. Kazan also incorporates lessons learned from testing the older vessel.

"The 885M is really the first ship of the class," Kofman said. "The 885M is intended as a substantial improvement, based on the lessons learned from the lengthy development, construction, and testing process for the original 885."

The Project 885 vessels are a departure from previous Soviet and Russian submarine designs. Unlike older Soviet vessels, the Project 885 submarines are multimission boats similar in concept to American vessels like the Seawolf or Virginia-classes.

"[Severodvinsk] is Russia's first truly multipurpose submarine," Michael Kofman and Norman Polmar wrote in the U.S. Naval Institute's Proceedings journal. "The Severodvinsk is capable of antisubmarine, antiship, and land-attack missions. Among the more interesting features are a large bow sonar dome for the Irtysh-Amfora sonar system and an amidships battery of eight vertical-launch cells that can carry 32 Kalibr (SS-N-27/30 Sizzler) or Oniks (SS-N-26 Strobile) cruise missiles. These antiship and land-attack weapons are particularly significant after Russian surface ships and submarines fired long-range mis-siles into Syria in 2016."

Russia plans to build a total of seven Project 885M submarines—Novosibirsk, Krasnoyarsk, Arkhangelsk and Perm are currently under construction at the Sevmash shipyards on the White Sea port city of Severodvinsk.

Meanwhile, Russia is planning on developing a follow-on class of attack submarine that would hunt U.S. Navy ballistic missile submarines. According to the authors of that article, "Now in development is a new Russian 'hunter-killer' submarine. This SSN will have the primary role of countering Western SSBNs. The new SSN is probably a significant program, but very little is known about it other than construction is slated to begin in the near future."

The Russians undoubtedly have the technical skills to develop an extremely formidable new class of attack submarines. The question is does the Kremlin have the financial wherewithal to fund another expensive new defense project.

<http://nationalinterest.org/blog/the-buzz/russias-most-powerful-nuclear-attack-submarine-ever-almost-19775>

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Rudaw (Erbil, Iraq)

## **Peshmerga Chemical Defense Unit Exhumes Victims of Halabja Gas Attack**

Author Not Attributed

The newly-founded Peshmerga Chemical Defense Unit has exhumed a number of bodies in Halabja on Tuesday, thought to be victims of the chemical attack on the city that occurred nearly three decades ago.

Halabja is the site of the worst chemical attack ever carried out against a civilian population in history. Iraqi jets trying to expel Kurdish Peshmerga and Iranian forces dropped chemical bombs on the city, killing 5,000 civilians within hours and injuring another 10,000.

The Peshmerga unit carried out the exhumation process together with the Ministry of Martyrs and Anfal Affairs.

Pari Nuri, director general from the ministry, told Rudaw that they do not know yet the number of the bodies in the grave. She said forensic team will take samples and will determine the number of the dead.

The Peshmerga ministry founded the Chemical Defense Unit after about 100 Peshmerga soldiers received training from German experts both in Germany and also here in the Kurdistan Region in late 2015 and early 2016.

In fighting ISIS along a frontline of several hundred kilometres, Kurdish forces have come under chemical attack several times in the past two years.

Around 14 Peshmerga suffered severe wounds and burns when they were attacked with chemical-laden bombs last May, according to a Peshmerga commander.

The Kurdistan Region is holding the 29th anniversary of the Halabja chemical attack on Thursday.

<http://www.rudaw.net/english/kurdistan/150320172>

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The Diamondback (College Park, MD)

## **The Iran Nuclear Deal has Been a Success for Everyone Involved**

By Moshe Klein

March 15, 2017

The beginning of April will mark two years since the announcement of the Iran Nuclear Deal between the P5+1 (the United States, the United Kingdom, Russia, France, China and Germany) and Iran. The deal, now known as the Joint Comprehensive Plan of Action, promised to lift sanctions on Iran in exchange for the dismantling of its nuclear weapons program. The deal was unanimously rejected by all the major Republican presidential candidates, and welcomed by all the Democratic presidential candidates, despite significant opposition to the deal from top senate Democrats like Senate Minority Leader Chuck Schumer.

However, even with this bipartisan criticism, the deal seems to have had positive effects for everyone directly and indirectly involved. The Middle East is more stable, the Iranian

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regime is farther away from attaining a nuclear weapon than at any time in the past of couple years and the Iranian people have been able to repair their economy.

Prior to the deal, sanctions had hurt the Iranian economy quite badly, and economic pressure undoubtedly brought them to the negotiating table. Since the easing of sanctions, Iran's annual growth rate has risen 4.1 percent and the inflation rate decreased by almost 6 percent. This occurred even though oil is one of their main exports, and gas prices have been dropping dramatically. Furthermore, Iran now has relatively limited, but not negligible, access to nuclear energy. This has helped Iran grow and become more stable.

Israel, Saudi Arabia, the United States and other international and regional powers nervous about Iran's nuclear weapon ambitions have seen Iran's nuclear weapon capability diminish. Before the deal, it would have taken Iran less than three months to create a nuclear weapon, and there were few ways to monitor its nuclear capabilities. Under the current deal, it would take Iran at least a year to enrich enough uranium to build a weapon, if not longer. Additionally, Iran needs to allow experts from the International Atomic Energy Agency, an independent watchdog agency, to inspect all their facilities if they want to keep the sanctions from being reapplied. Furthermore, the deal involves disposing of more than two-thirds of all centrifuges, the elimination of all medium enriched uranium, and the dismantling and rebuilding of the Arak water reactor. All these demands, most of which have already been met, give the United States and its friends more options and time should Iran attempt to attain nuclear weapons. These stipulations make an Iranian push for nuclear weapons significantly harder, at least for the next 10 to 15 years.

One of the main criticisms of the deal was that countries would not "snapback" sanctions should Iran violate the terms of the agreement. However, Iran has yet to void the deal, as countries still maintain adequate incentive to quickly reapply sanctions if necessary. A stable Iran means a weaker ISIS and a more stable Middle East region. Should Iran begin to enrich uranium at nuclear weapon levels, countries would choose to either snap back sanctions or allow for a nuclear arms race in an already volatile Middle East, something no sane person or government would allow to happen. And even if sanctions would not work in deterring Iran from their nuclear weapon ambition, countries would have ample time to prepare and conduct a response, whatever that may entail.

The Iranian government remains a pressing issue for the United States and its allies. Iran is still one of the world's largest state sponsors of terrorism, and displays dangerous rhetoric on a frequent basis. However, so far, the Iran Deal has resulted in an increase in stability in the region and has prevented a potentially catastrophic nuclear arms race.

<http://www.dbknews.com/2017/03/16/iran-nuclear-success-israel-united-states/>

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Arab News (Jeddah, Saudia Arabia)

### **What Future for the Iran Nuclear Deal?**

By Yasar Yakis

US-Iran relations have always been complex, but they are likely to become more so due to President Donald Trump's opposition to the nuclear deal. The issue becomes all the more

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important at a time when they may need to cooperate in their fight against Daesh in Syria and Iraq.

The nuclear deal, or the Joint Comprehensive Plan of Action (JCPOA), was signed on July 14, 2015, after protracted negotiations between Iran and the five permanent members of the UN Security Council — China, France, Russia, the UK and US — plus Germany.

The deal set a framework that looked more or less acceptable to all sides, but its opponents in the US and Iran did not wait long to point at various discrepancies. A rule in international relations says the longest-lasting deals are usually those that make all parties equally unhappy. We may therefore hope the deal outlives the Trump presidency.

Scrapping it was top of his to-do list during his election campaign. Referring to Iran's frozen assets that would be released due to the deal, he said: "Allowing access to billions of dollars in exchange for curbs on its nuclear program is not in America's or the world's interests." Negative reactions to this attitude poured in from the capitals of all other parties to the deal.

Trump must have later realized the difficulty of translating into action all his election promises. He softened his rhetoric during his telephone call with Saudi King Salman, when he spoke of "the strict implementation of all provisions of the deal" rather than scrapping it.

The deal limits the number of centrifuges to be deployed in the next 10 years, and the level of enriched uranium under 3.67 percent for at least 15 years. The stockpile of enriched uranium will be kept under 300kg. Iran has abided by these and many other scrupulously worded restrictions, and the International Atomic Energy Agency (IAEA) has recognized its full compliance.

President Hassan Rouhani promised during his election campaign in 2013 to open up Iran's economy. He may maintain the same promise while campaigning for presidential elections due to be held in May. Improvement in Iran's economy will bring more votes to any political contender. It would be wise to let the public reap the benefits.

Iran is in no hurry to resume its nuclear program because since it has already acquired nuclear technology, it can do so at any time in the future if it becomes necessary. Trump, for his part, does not need to stick to his initial promise of undoing the deal because there are several unrelated means the US can use unilaterally if it wishes to make life difficult for Iran.

For instance, UN Security Council Resolution 2231 abolished all punitive measures imposed on Iran, but unilateral US sanctions blocking Tehran's access to the international banking system are still in place. These sanctions are outside the scope of the JCPOA. They were imposed by Washington due to Tehran's support for terrorist groups.

The Islamic Revolutionary Guard Corps (IRGC), with its 125,000 soldiers, is part of Iran's army and is tasked by the constitution with protecting the country's Islamic system. As well as its military activities, the IRGC is a vast conglomerate involved in missile batteries, oil, gas, petrochemical industries and nuclear programs.

It controls multibillion-dollar businesses in all sectors. Its annual income is estimated at \$12 billion in business and construction. Such a big economic actor has business relations with all financial institutions in the country.

The US considers the IRGC a terrorist organization, so international financial institutions are worried that they may face sanctions if they do business with Iranian banks that deal with the IRGC. After the adoption of UN Security Council Resolution 2231, then-President Barack Obama and his Secretary of State John Kerry tried to reassure international banks





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they could do business with Iranian banks, but this verbal reassurance did not dispel their worry.

They asked for a clear guarantee that they would not be sanctioned. Despite the positive approach of Obama and Kerry, the question is still hanging because of the US Treasury Department's unclear attitude. The irony is that international financial institutions face problems because of US sanctions against the IRGC, but it is the strongest force inflicting losses on Daesh in Syria and Iraq.

<http://www.arabnews.com/node/1067881>

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The Jerusalem Post (Jerusalem, Israel)

### **President Trump, North Korea, and Israel's Nuclear Strategy**

By Louis Rene Beres

March 16, 2017

*A "mad dog" strategy might work for the US and Israel, but it could also backfire against both countries with potentially egregious human costs.*

It appears increasingly plausible that President Donald Trump's first major test in strategic crisis management will come from North Korea. The spillover effects of any such test, a complex challenge that may or may not have a nuclear dimension, could rapidly involve other countries, including several powerful states in the Middle East.

Context is vital. All world politics ultimately comprise a single integrated system of states. What happens in any one geographic area, therefore, can quickly affect another.

Israel is a case in point. As a beleaguered state possessing a prospective (and still intentionally opaque) nuclear "equalizer," Israel is no doubt well aware that the use of nuclear weapons anywhere in the world would immediately erase the longstanding nuclear taboo. A prima facie erasure of this sort could increase the odds of subsequent nuclear firings in Israel's own volatile neighborhood.

Furthermore, as North Korea already has a documented nuclear assistance history with Syria and Iran (the Syrian nuclear threat was eliminated by Israel's preemptive Operation Orchard on September 6, 2007), Jerusalem's concerns over escalations by Pyongyang would be entirely reasonable. Over time, for example, Iran, with or without any additional direct nuclear assistance from North Korea, could be encouraged to render itself less vulnerable to an Israeli hard-target preemption or Israeli cyber-deterrence. The extent of any such encouragement would depend, at least in part, on Pyongyang's prior success or failure in navigating "escalation dominance" with the Trump-led US.

For now, Israel's nuclear strategy remains deliberately ambiguous. The so-called "bomb-in-the-basement" posture has endured since the 1960s, primarily because Jerusalem has not yet had to worry about confronting any enemy state's nuclear forces. This once reasonable position would need to change, however, if Iran were perceived by Israel to have become nearly nuclear. Israel's strategic posture would need to change even more urgently if Jerusalem should find itself facing a nuclear fait accompli in Tehran.

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For Israel, however, it's not just about Iran. For entirely sound reasons, the Jewish State could at some point decide to shift to a more credible and persuasive measure of nuclear disclosure once an actual nuclear attack had taken place anywhere on earth. In essence, there would not need to be any direct connection between such an attack and Israel for Jerusalem to acknowledge new national survival obligations.

For example, any belligerent use of nuclear weapons by North Korea might lower Pakistani cost-benefit calculations of a nuclear war with India. While not directed in any way towards Israel, such a destabilizing development in an already nuclear and coup-vulnerable Islamic state would naturally raise red flags in Jerusalem.

For Israel, a key question is this: What scenarios should be considered once Pyongyang has actually fired nuclear weapons at another state (e.g., Japan, or American military targets) or configuration of states (e.g., South Korea, Japan, and/or the in-range US)? The precise manner and extent to which Israel could be affected in any such taboo-breaking circumstances would depend, inter alia, on prevailing geopolitical alignments and cleavages, both regional and worldwide.

More precisely, the expected impact on Israel would lie in the particular way President Trump had handled the nuclear crisis with North Korea. In this regard, all players in both Washington and Jerusalem need to remember that there is no scientific way of ascertaining risk in unprecedented circumstances. That is because in any valid scientific calculation, probabilities must be based upon the discoverable frequency of pertinent past events.

Leaving aside the 1962 Cuban Missile Crisis, which may or may not represent an apt analogue here, there simply are no pertinent past events.

Inevitably, the potential spillover effect on Israel of any nuclear weapons use by North Korea would depend, in part, upon the combatants involved; the expected rationality or irrationality of those combatants; the yield and range of the weapons fired; and of course, the aggregate calculation of civilian and military harm suffered in the affected areas. If, for example, Pyongyang fired nuclear weapons against American targets, military and/or civilian, Jerusalem could reasonably anticipate an overwhelmingly destructive US response. That said, the extent of the American response would depend a great deal on the inherently uncertain "Trump Factor."

It follows that Israel's senior strategic planners should already be preparing their best estimates of this eccentric factor – although again, there can be no scientifically meaningful basis for any such calculations.

For Israel, further complications could affect its decision-making. Israeli planners would have to account not only for singular nuclear weapons operations launched by North Korea, but also for any interactions or synergies that might then be expected. Because world politics is not geometry, the Israelis would need to take into consideration that the whole of inflicted harm can be substantially greater than the sum of attack "parts."

How should Israeli strategic planners cope with such bewildering insights, complications, and expectations? First, they will need to factor into the evolving corpus of national nuclear policy preparation an updated version of Carl von Clausewitz's classic "friction." According to this nuanced conceptual consideration, Israeli analysts will have to base their enhanced adjustments of the country's nuclear doctrine on a widely integrated range of potentially critical factors. This range should involve a calculated loosening of "deliberate ambiguity," including a recognizable Israeli capacity to deny expected enemy nuclear attack objectives with advanced anti-missile defenses.

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Among other refinements, Jerusalem will need to assess whether or not the new American president is able to maintain complete rationality during any anticipated process of crisis escalation, and whether he can grasp certain plausible expected benefits of "pretend irrationality." In this connection, Israeli leaders will want to recall Moshe Dayan's advice. Said the Israeli Minister of Defense many years back, "Israel must be seen as a mad dog, too dangerous to bother."

When contemplating a nuclear crisis between Washington and Pyongyang, Jerusalem must bear in mind that several intersecting and overwhelmingly destructive consequences could extend to other countries, including Israel. To prepare for such a threat, Israel's strategic planners should be gaming various scenarios in which President Trump (1) hews closely to fully rational "plays;" and (2) adheres to other moves in which he might (however unwittingly) act upon Dayan's apt metaphor of feigned madness. In the latter case, Israeli analysts should examine Trump's expected crisis decision-making together with a pretended irrationality option.

Strategic planners should be warned. A "mad dog" strategy might work for the US and Israel, but it could also backfire against both countries with potentially egregious human costs. In the case of Israel, which is half the size of America's Lake Michigan, these costs could prove existential.

<http://www.jpost.com/Opinion/President-Trump-North-Korea-and-Israelis-nuclear-strategy-484387>

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The Diplomat (Tokyo, Japan)

### **Russia's Air Force to Receive 17 New Su-30 Fighter Jets in 2017**

By Franz-Stefan Gady

March 14, 2017

*The latest variant of the heavy multirole fighter aircraft remains the mainstay of Russia's fighter force.*

The Russian Air Force is slated to receive 17 Sukhoi Su-30SM multirole fighter jets, classified by Russian military authorities as 4++ generation fighter aircraft, in 2017, according to a press statement by Russia's deputy defense minister, Yuri Borisov, while visiting the aircraft's manufacturer Irkutsk Corporation on March 9.

"Long-term contracts have been concluded with this plant. This year it is expected to deliver 17 Sukhoi-30SM planes and ten Yakovlev-130 planes," Borisov said, according to TASS news agency. In April 2016, Russia's Defense Ministry and Irkut Corporation concluded a contract for the procurement of over 30 Su-30SM fighter aircraft by the end of 2018.

The Russian Air Force and Navy currently operate approximately 40-50 Su-30SM aircraft. Initially, the Russian military expected 60 new aircraft of the type the end of 2016, yet it is unclear how many new fighters jets have in fact joined the service. The Russian Ministry of Defense intends to induct a total of 90 Su-30SMs, according to various contracts concluded since 2012 as part of Russia's 2011-2020 State Armament Program.

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“The Su-30SM is a multipurpose aircraft and armed with bombs, air-to-air, anti-ship, and land attack missiles,” I explained elsewhere. “It can be deployed as an air superiority fighter, engage naval surface vessels, or conduct land attack operations.” A number of Su-30SMs have been engaged in bombing missions or acted as escorts for other Russian military aircraft in Syria.

Furthermore, I noted:

*The Su-30SM is based on the Su-30 MKI export version, an aircraft jointly developed by Russia with Hindustan Aeronautics Limited for the Indian Air Force. However, the two-seat SM is a localized variant of the MKI and unlike the latter does not contain Israeli and French avionics. It retains, however, the same airframe made of titanium and high-strength aluminum alloys and also features the MKI’s AL-37FP thrust-vectoring engines among other things.*

When fitted with extra tanks, the aircraft’s range without refueling is approximately 3,000 kilometers.

On March 10, the Russian deputy defense minister also announced that the Russian Air Force will receive 16 new Sukhoi Su-34 fighter-bombers as part of an order placed by the Ministry of Defense for 92 aircraft. “This year, we expect above the plan supplies of four aircraft, and the overall amount of order for this year is 16 Su-34,” Borisov said.

In addition, Borisov stated that upgrades of older variants of the Su-34 will kick off in 2018. “The program of Su-34’s modernization is scheduled for 2018. We discussed with the leadership of the plant and the United Aircraft Corporation the plans of work on the aircraft as part of the future state arms program for 2018-2025.”

<http://thediplomat.com/2017/03/russias-air-force-to-receive-17-new-su-30-fighter-jets-in-2017/>

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The Diplomat (Tokyo, Japan)

## **India Test Fires Supersonic Cruise Missile**

By Franz-Stefan Gady

March 15, 2017

*India successfully test launched a BrahMos Extended Range missile on March 11.*

The Indian Ministry of Defense’s research arm, the Defense Research Development Organization (DRDO), conducted a test launch of an extended range version of the BrahMos supersonic cruise missile from the Integrated Test Range at Chandipur off the coast of the eastern Indian state of Odisha on March 11, according to a statement by the Indo-Russian joint venture BrahMos Aerospace.

“In a historical first, the formidable missile system once again proved its mettle to precisely hit enemy targets at much higher range than the current range of 290 km, with supersonic speed of 2.8 Mach,” the statement reads. According to sources, the standoff engagement range of the improved BrahMos will be approximately 600 kilometers.

“During the launch at 1130 hours, the land-attack version of the supersonic cruise missile system met its mission parameters in a copybook manner. It was a text book launch



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achieving 100 percent results, executed with high precision from the Mobile Autonomous Launcher (MAL) deployed in full configuration,” the statement continued.

The BrahMos is a joint venture between DRDO and Russian rocket design bureau NPO Mashinostroyeniya. The jointly developed two-stage missile is a derivative of the Russian P-800 Oniks over-the-horizon supersonic anti-ship cruise missile and first entered service with the Indian military in 2006. It is twice as heavy and allegedly four times faster than the American Tomahawk subsonic cruise missile.

With top speeds of Mach 2.8 to 3, the BrahMos is considered to be the world’s fastest cruise missile currently in operation. The BrahMos operates on a so-called fire and forget principle. The missile’s terminal altitude is as low as 10 meters; the ship-launched anti-ship version of the BrahMos can fly three to four meters above the sea to avoid detection.

Both the land-launched and sea-launched variants of the missile are already in service. An air-launched version of the missile, the so-called BrahMos-A, is expected to become operational with the Indian Air Force in the near future. BrahMos cruise missiles of all variants can alternatively be fitted with conventional or nuclear warheads.

“With the successful test firing of BrahMos Extended Range missile, BrahMos-ER, the Indian Armed Forces will be empowered to knock down enemy targets far beyond the 400 kilometers. BrahMos has thus proved its prowess once again as the best supersonic cruise missile system in the world,” the CEO and managing director of BrahMos Aerospace said following the successful test launch.

The upgrade of the missile followed India’s entry into the Missile Technology Control Regime (MTCR), which removed caps on the missile’s range. Previous restrictions prohibited Russia from supplying India with the necessary technology to do so.

<http://thediplomat.com/2017/03/india-test-fires-supersonic-cruise-missile/>

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Pakistan Observer

### **Treacherous Indo-US Nuclear Deal**

By Ali Raza

In the wake of provisions of US-India nuclear deal, which was cleverly and cunningly negotiated by India, US approached the Nuclear Supplier Group (NSG), and successfully managed to obtain a nuclear waiver for India to conduct nuclear trade with other countries despite the fact that it is the only country, which is not a signatory of NPT. In addition, India has also successfully managed to obtain nuclear fuel assurance from US. The clauses of US – India Civil Nuclear Agreement (123 agreement) mandates that US will support endeavours of India in development of strategic reserve of nuclear fuel, which would serve as a back up in the event of disruption of supply of nuclear fuel.

As a consequence of said deal, the ban imposed on India in respect of nuclear trade was lifted (which was imposed due to nuclear test conducted by India in 1974), and India started import of uranium from various countries. As per report published by Centre for Public Integrity, India has managed to receive roughly 4914 tons of uranium from France,

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Russia and Kazakhstan. Further, it has also entered into agreements with respect to supply of uranium with Canada, Mongolia and Namibia. Australia has also signed an agreement with India, and has assured India that it would be reliable supplier of uranium to India. It is important to mention here that now indigenous uranium of India is exclusively available and being used by India for making only nuclear weapons as the requirement of uranium for civil nuclear program of India is being fulfilled by the uranium, imported from other countries in the wake of US-Indo nuclear deal.

On the other hand, planning of India to build a nuclear city in its south is also unveiled, and it is also believed that nuclear fuel being used in such a huge nuclear project is homemade, which is now exclusively available for building of nuclear weapons. It has also been reported that two expanded buildings that are being constructed at the site have the capability to accommodate new generation of centrifuges that can enrich uranium than any existing version, and has the capacity to produce around 403 pounds of weapon graded uranium per year.

It is believed that such huge quantity of uranium would be used by India for preparation of Hydrogen bombs. Installation of such a heavy nuclear project is projecting, and would also produce in future, the disastrous impacts for the peace and stability of region. The said project has also high potential of triggering the arms race in the region, at cost of peace and prosperity of the people of region, as Pakistan would be left with no option except to increase its nuclear arsenals for its defense.

A closer view of the steps taken by India in the past one and a half decade reveals that India has treacherously repeated the episode of 1974. India conducted its first nuclear test in 1974 at Pokhran, after making the whole world believe that it is a peaceful country and has no designs of becoming a nuclear power. Similarly, India has deceitfully managed to strike a nuclear deal with US under the garb that it would use the nuclear fuel for civil purposes, but diverted the entire indigenous uranium for its nuclear weapon program. The global powers must realize that India has misused the US – India Nuclear deal, and has managed to increase the stockpile of nuclear arsenals to a very large scale. Immediate steps are required to be taken by international community so that nuclear waiver granted to India be withdrawn immediately, and India be compelled to roll-back its huge nuclear project as it would disturb the strategic balance of the region in its designs of attaining regional hegemony.

<http://pakobserver.net/treacherous-indo-us-nuclear-deal/>

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CNS News (Washington, DC)

## **Pakistan's Nuclear Arsenal Could Easily Become a Hazard**

By Lisa Curtis

March 15, 2017

Michael Krepon, co-founder of the U.S.-based Stimson Center, whose views are widely respected both in South Asia and in Washington, has written a thought-provoking piece on the future of U.S. policy toward Pakistan.

In the article, Krepon argues in favor of a status quo U.S. policy toward Pakistan that relies solely on inducements and engagement, rather than exerting pressure on Pakistan.

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Krepon acknowledges that this policy approach has been ineffective in convincing Pakistan to crack down on some terrorist groups that endanger core U.S. national security interests in the region. Nonetheless, he argues for a status quo policy that does not levy consequences on Pakistan for continued support to international terrorist groups.

Krepon's main reason rests largely on the idea that the nuclear issue is more important than the terrorism issue. Krepon seems to believe that if the U.S. penalizes Pakistan for its continued support for some terrorist groups, the U.S. will lose leverage over Pakistan in keeping its nuclear weapons safe and secure.

Krepon also argues that "the future of Pakistan is more important to the United States than the future of Afghanistan."

Both of these assertions rely on false choices and confuse the problem at hand.

One of the primary U.S. concerns regarding Pakistan's nuclear weapons is the danger that they could fall into terrorist hands. A second concern is that Pakistan would use its nuclear weapons in a potential conflict with India.

Additionally, if the Taliban make further territorial gains in Afghanistan—aided by having a sanctuary inside Pakistan—this will facilitate the revival of al-Qaeda in the region and boost the morale of Islamist extremists across the globe.

These are three potentially very dangerous scenarios that the U.S. must work to prevent. Putting pressure on Pakistan to crack down on terrorist groups within its territory is key to making sure these scenarios don't come to pass.

### **Appeasement Will Not Work**

Krepon's status quo policy would likely lead to the growth of anti-India terrorist groups like the Lashkar-e-Taiba, which conducted the 2008 Mumbai attacks that nearly led to military conflict between the nuclear-armed neighbors.

Moreover, U.S. acquiescence to Pakistan's continued support for some terrorist groups would allow an overall conducive environment for terrorism to thrive in the country—something that puts Pakistan's long-term stability at risk.

It is precisely because of these dangers—the threat of an Indo-Pakistani conflict that could go nuclear, the potential nexus between terror and nuclear weapons, instability of the Pakistani state from the blowback of supporting terrorism, and the need to stabilize Afghanistan—that the U.S. must adopt a more pointed policy approach with Islamabad.

This line of reasoning is spelled out in a report that I drafted with former Pakistani Ambassador to the U.S. Husain Haqqani and with input from several other U.S.-based Pakistan experts.

The report recommends the Trump administration take a sharper, more clear-eyed policy approach toward Pakistan that includes consequences for Pakistani failure to rein in terror groups that threaten stability in Afghanistan, as well as raise tensions with India.

Consequences should include things like enforcing conditions on military aid and revoking Pakistan's status as a major non-NATO ally.

The report stops short of recommending that the U.S. declare Pakistan to be a state sponsor of terrorism this year—though it recommends keeping that option open for the future.

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I have stated my personal opposition to doing this on numerous occasions. Designating Pakistan a state sponsor of terrorism would preclude the U.S. from providing any kind of aid to Pakistan and would lead to an irreparable breach in the relationship.

While tightening U.S. counterterrorism policies toward Pakistan is necessary, it's also not in the U.S. interest to make an enemy out of Pakistan.

Our report revolves around the notion that evoking change in Pakistani terrorism policies is desirable not only for U.S. security objectives, but also for the sake of Pakistan's own future.

Contrary to what Krepon's article suggests, raising the bar on the Pakistanis is not an effort to stigmatize them. Krepon's article wrongly suggests that any policy other than the status quo amounts to disengaging with Pakistan.

Krepon's argument seems to be that the U.S. should allow Pakistan to continue support for some terror groups and wait patiently until Pakistan itself realizes the cost of its dangerous behavior through what he calls a "clarifying process."

### **The Path to Stability**

But the risks in the region are too acute and immediate to wait patiently and assume that Pakistan will eventually change its policies without incurring some international cost. Pressure from the United States is needed.

At the same time, the Trump administration should both publicly and privately maintain avenues for Pakistan to become a U.S. ally in the future. As we state in the report:

"Were Pakistan to cease its current tolerance of and support to terrorist groups, one can envisage grounds for common interest and policies on a range of issues that would form the basis of mutual interest. This could involve a package of trade and investment cooperation that would be mutually win-win for the economies of the United States and Pakistan."

Far from stigmatizing Pakistan or proposing a witch hunt, our report provides a sound and practical way forward for improving the prospects for stability in the region, reducing global terrorist threats, and providing the basis for a stronger U.S.-Pakistan partnership over the long term.

<https://www.cnsnews.com/commentary/lisa-curtis/pakistans-nuclear-arsenal-could-become-hazard>

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Pakistan Observer (Islamabad, Pakistan)

### **WMD Measures Should Not Hinder Access to Technologies For Peaceful Purposes: Fatemi**

Author Not Attributed

March 16, 2017

Pakistan believes that control measures to address risks of Weapons of Mass Destruction (WMD) acquisition should not hinder the legitimate quest of the developing countries to access and use strategic materials and technologies for peaceful purposes, Special Assistant to the Prime Minister on Foreign Affairs Syed Tarqi Fatemi said. Pakistan therefore, advocates the need for striking a right balance between the imperatives of security and

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development, Tariq Fatemi said in his concluding remarks in the regional seminar on UN Security Council Resolution 1540, held here Wednesday.

Developing countries with the requisite advanced capacities, should be afforded an equal opportunity, for participation in the governance of international export control regime, he added. For over four decades, he said, Pakistan has developed the necessary expertise and possesses the right qualifications, to join the export control bodies.

“We have therefore, sought membership of the Nuclear Suppliers Group (NSG), as a mutually beneficial proposition, and as a contribution to the larger goal of non-proliferation”, he argued. The Group is reviewing the legal, technical and political aspects of membership of non-NPT countries. Pakistan believes that the NSG should develop and decide on a credible, transparent and non-discriminatory criteria, so that membership applications of non-NPT states are treated at par.

In pursuing global non-proliferation objectives, and promoting regional as well as international security, he asserted, Pakistan is a strong, capable and committed partner. The dissemination of and advances in technologies as well as international trade, accompanied by risks of their unauthorized access, requires continued vigilance and collaborative efforts. Pakistan’s constructive engagement with and contribution to the Nuclear Security Summit process, the Global Initiative to Combat Nuclear Terrorism, OPCW, IAEA, the United Nations demonstrates our commitment towards advancement of non-proliferation goals, he said.

The two day deliberations were designed to provide a platform for deliberations, sharing of experiences and developing ideas for collaboration. “I hope the seminar has been a worthwhile experience for both our guests from abroad and local officials, academia and think tanks”. Resolution 1540 and its successor incarnations have played an important role in raising awareness about the risks of misuse of weapons of mass destruction, their means of delivery and related materials, he said.

<http://pakobserver.net/wmd-measures-should-not-hinder-access-to-technologies-for-peaceful-purposes-fatemi/>

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Institute for Security Studies (Pretoria, South Africa)

### **AU to Keep Building on Progress to Curb WMD**

By Nicholas Kasprzyk

March 13, 2017

*The UNSC resolution 1540 comprehensive review highlights the active role played by the AU.*

In 2016, the United Nations (UN) 1540 Committee conducted a major exercise with two clear aims: firstly, to take stock of the implementation of UN Security Council resolution 1540, and secondly, to produce recommendations to strengthen efforts in preventing and combatting the proliferation of weapons of mass destruction to non-state actors.

To undertake the so-called ‘comprehensive review’, the 1540 Committee drew on input from states; from international and regional organisations such as the African Union (AU);

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and from civil society, including the Institute for Security Studies. It also relied on in-house substantive expertise to measure progress and identify remaining challenges.

The outcome report, which was submitted to the Security Council in December 2016, provides in-depth analysis of the current state-of-play to ensure that non-state actors, including terrorists, do not get access to the deadliest weapons. It also reflects the important efforts undertaken on the African continent, with tangible results.

The report notes that ‘overall, progress has been made’ – and the assessment is broadly positive. It highlights, however, that more remains to be done, emphasising that it is ‘a long-term task that requires continuous efforts at the national, regional and international levels.’

On the African continent, important progress is observed. At the Assistance and Review Conference on the Implementation of Resolution 1540 hosted by the AU in April 2016, a 1540 Committee expert provided detailed statistics on implementation in Africa, revealing significant advances.

From 2010 to 2015, the number of implementation measures in Africa identified by the 1540 Committee had risen by almost 61%. Seven African states have hosted a visit of the 1540 Committee (Burkina Faso, Republic of the Congo, Lesotho, Madagascar, Malawi, Niger and Zambia), and six African states have formally elaborated a 1540 national action plan (Ghana, Lesotho, Malawi, Niger, Senegal and Togo), which is testimony to the progress made on the continent.

Persistent implementation deficits remain, however, and should not be underestimated. Thirteen of the 17 UN member states that have still not submitted a national report to the 1540 Committee are from Africa. In addition, implementation measures compiled into matrices by the 1540 Committee put Africa at the last position among UN regions. The implementation rate in Africa is at 28%, against 39% in Latin America and the Caribbean, 41% in Asia Pacific, 80% in Eastern Europe and 85% in Western Europe and others.

As was highlighted on several occasions, African states face important capacity-building challenges. This has fuelled expectations on the continent that the 1540 Committee should efficiently expedite assistance delivery, by actively facilitating match-making between requests and offers of assistance.

In this context, the outcome report of the 2016 comprehensive reviews sends a worrying signal, stating that ‘fulfilling [the] matchmaking role [of the 1540 Committee] in a comprehensive and timely manner is one of its most challenging functions’.

In an article published by the 1540 Compass, the point is driven home by Ambassador Román Oyarzun Marchesi, exiting Chairperson of the 1540 Committee. Marchesi describes as a regret from his tenure that ‘the Committee did not find better ways to enhance its ability to match requests for assistance with potential providers of such assistance’.

But if the 1540 Committee faces structural difficulties in fulfilling its matchmaking role, this also represents opportunities to rely more systematically on regional organisations – and to add attention to enhancing their capacity to facilitate assistance delivery.

The Assistance and Review Conference hosted by the AU in 2016 set a precedent that could be replicated on the continent, and serve as a model in other parts of the world. As noted in the outcome report of the 2016 comprehensive review, ‘it was the first time that States that had requested assistance were brought together with potential providers, thereby facilitating a genuine “matchmaking” platform’.



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The outcome report rightfully acknowledges the active role of the AU in support of implementing resolution 1540; particularly since 2011 and the designation of a focal point in the person of the Head of the Defence and Security Division. It mentions several important initiatives undertaken by the AU, highlighting the broad range of 1540-related matters addressed by the continental body.

The comprehensive review has also pointed to other efforts and likely prospects for further preventing the proliferation of weapons of mass destruction to non-state actors on the continent, including a substantive working paper contributed by the AU, which reads as a solid and realistic roadmap.

In the foreseeable future, it can be expected that the AU Commission will focus on options for enhancing its capacity to coordinate and channel assistance. Other areas include developing model legislation; harmonising export controls; training programmes for national points of contact and targeted assistance to states in reporting and implementation.

<https://issafrica.org/iss-today/au-to-keep-building-on-progress-to-curb-wmd>

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38 North (Washington, DC)

### **Designating North Korea a State Sponsor of Terrorism: All Ahead Slow**

By Joseph DeThomas

March 14, 2017

Reopening the discussion about whether to re-designate the DPRK as a state sponsor of terrorism is inevitable in the current environment. The public and highly theatrical assassination of Kim Jong Nam using VX nerve gas followed by a nasty diplomatic contretemps between the Malaysian and North Korean governments would suffice to make any observer question the relevance of the Bush Administration's decision to remove Pyongyang from the State Sponsors of Terrorism list. Designating a government a state sponsor of terrorism is more of an art than a science. Political and diplomatic context plays a considerable role in such designations. But, there are technical and legal aspects to the effort that are necessary and important parts of the designation process as well. If these are ignored, implementation can be seriously affected—as we have seen with the Trump Administration's hasty and ill-conceived initial effort to ban travel from countries that, at one time or another, have been designated as state sponsors of terrorism. The more important question to examine, however, is whether such a designation would be helpful in dealing with the rapidly deteriorating effort to contain North Korea's nuclear and missile programs and to prevent a crisis on the Korean Peninsula. This article will suggest that it would be premature to designate the DPRK until the US has gotten its ducks in a row with regard to North Korea policy and the personnel to implement it.

### **State Sponsorship of Terrorism—Knowing It When We See It**

The Secretary of State has the authority to designate governments as state sponsors of terrorism and to make this designation, the “Secretary of State must determine that the

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government of such country has repeatedly provided support for acts of international terrorism.” International terrorism is defined in the legislation as:

“(1) the term “international terrorism” means terrorism involving citizens or the territory of more than 1 country;

(2) the term “terrorism” means premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents”

Once designated, unilateral US sanctions apply to the country in the following areas:

A ban on arms-related exports and sales;

Controls over exports of dual-use items, requiring 30-day Congressional notification for goods or services that could significantly enhance the terrorist-list country’s military capability or ability to support terrorism;

Prohibitions on economic assistance; and

Imposition of miscellaneous financial and other restrictions.

Only three countries are currently designated state sponsors: Iran, Syria and Sudan. Cuba, Libya, Iraq and North Korea and the former South Yemen were previously designated but were removed in recent years. It is worthy to note that in each case the lifting of the designation took place either in the context of regime change or of a significant shift in the country’s diplomatic relations with the United States.

The Secretary of State has a lot more legislative guidance on how to remove a country from the list than on when to put one on. While the legislation requires the Secretary to report to Congress on specific activities relevant to state sponsorship of terrorism (e.g., providing safe haven to terrorist groups), it does not provide legislative triggers or guidance for designation other than the requirement that such a country must “repeatedly” provide support for acts of international terrorism. Thus, a US ally like Pakistan, which certainly has had rather suspicious links to repeated terrorist attacks in India and Afghanistan, is not designated. There is, therefore, an implicit “national interest” criterion in the designation. Where it would harm the national interest to designate and sanction a country (as designating Pakistan probably would), Secretaries of State have avoided it and the legislation allows such executive discretion.

Removal from the state sponsors list, however, requires the country to meet one of two sets of criteria. The President must either certify to Congress that the government of the country in question has changed fundamentally in terms of policies and personnel and not provided support to terrorism, or that it has not provided support to international terrorism for six months. In both cases, the President must also certify that the government to be removed from the list has given the US assurances that it will not support international terrorism in the future. In 2008, President Bush used this mechanism to remove North Korea from the list of state sponsors. The DPRK had long met the criteria. However, the removal from the list was linked to other elements of US negotiations on nuclear matters. The Executive Branch cannot lift sanctions for state sponsorship of terrorism without meeting the legislative criteria, but in practice, it takes far more than meeting the criteria to be removed.

### **Can North Korea Be Re-Designated? Should It?**

Given the March 8 statement by the Malaysian Prime Minister implicating the government of North Korea in the murder of Kim Jong Nam, it would seem to qualify as an act of state sponsored international terrorism under the law. The use of a prohibited chemical weapon



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in an attack in a public area of another nation makes it particularly heinous. True, it is not of the same level of viciousness as North Korea's past campaign of state sponsored terrorism. The victim was a single North Korean terminated apparently in Pyongyang's Byzantine family power struggle, whereas in Pyongyang's previous campaign of state sponsored terror, the targets were South Korean civilians and officials in large numbers. This included a bomb attack in Rangoon that murdered a significant part of the ROK Cabinet and the bombing of a South Korean civilian airliner killing 115 people in the 1980s. Moreover, a single intra-family assassination does not necessarily meet the "repeated" support criterion for designation, but if the international outcry over the assassination is loud enough (e.g., through some decision of the UN Security Council), one suspects a means could be found to move forward. It would seem absurd to have to wait for Pyongyang to conduct a second VX attack in order to do so. It is possible that the Secretary of State could simply conclude that the DPRK had violated assurances that permitted President Bush to lift the designation as a state sponsor, requiring him to re-designate Pyongyang; he could also consider North Korea's recent cyber attacks on the US and South Korea as an act of state-sponsored terrorism.

So, in all probability, the Secretary could designate North Korea. This might take a little time—even in this post-truth era—as sanctions decisions are fact-based and must meet legal and procedural standards. This will require some concrete, legal basis for concluding there was a definite North Korean government role in the assassination. The real issues are whether and when he should do it.

There are two strong reasons to do so. The first is the heinous nature of the killing—particularly the use of a chemical weapon on the territory of a previously friendly country. The second is that the diplomatic context for removing the DPRK from the state sponsors list has evaporated. Prior to the assassination, the second reason was often given for returning North Korea to the list. It never gained traction largely because it did not give the Secretary any legal basis for such a step. But, now that there is an actual act of terrorism to consider, the lack of a diplomatic context for keeping North Korea off the list provides support for taking the step. It is hard to find a tactical basis for not taking the step when our previous nuclear dialogue is in a state of collapse. There is certainly a diplomatic logic to withdrawing what was, in fact if not in law, a concession made to Pyongyang in the context of progress on nuclear and missile issues now that the North Koreans are hell-bent on developing a strategic nuclear deterrent.

On the other hand, re-designation offers only limited gains. The specific sanctions required by the state sponsor designation largely already apply to North Korea under a myriad of other sanctions provisions. Designation as a state sponsor of terrorism might give our financial officials a little more clout in going after North Korean financial transfers, but there is no sanctions magic here. It will have an additional impact on North Korea's already badly tarnished international reputation. But the greatest practical impact of sanctions for the Kim Jong Nam assassination has nothing to do with imposing additional US sanctions. It is the fact that Malaysia—previously quite tolerant of certain North Korean activities such as taking a relatively restrained approach to inspecting suspect North Korean cargos and tolerating suspect North Korean businesses—is likely to be much more willing to crack down.

However, strategically, there should be no rush to designate Pyongyang. In the larger regional context, the North Korean issue does not need any additional ignition points.

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Tensions are already running high on the North Korean missile front with its tests of ballistic missile strikes on Japan and with both US and Japanese sources floating stories about preemptive military options to deal with it, not to mention the somewhat more rapid deployment of THAAD than outside observers expected. The United States and its allies have one overarching strategic goal here: to prevent the North Korean nuclear and missile program from destabilizing peace and security in East Asia. A decision on designating North Korea needs to be made in that larger context and not as an emotional reaction to another North Korean outrage. This is not to say a designation would likely generate a kinetic response from Pyongyang, but we are already sliding towards confrontation in the region there is no immediate need to do anything to accelerate the slide. The pace of events may already be faster than the involved governments can control.

The situation is rapidly taking on the features of a crisis without exit in which all players are taking steps that—while sensible from their own perspective—successively drive each party in turn to adopt more confrontational responses. The US, ROK and DPRK are all leadership-challenged at the moment, due to various political crises, transitions and self-inflicted wounds in the Kim family. Under these circumstances, the United States and its allies would benefit from taking more time to sort out their own policies and administrations, to put their diplomatic and military ducks in a row for what promises to be a dangerous year on the Korean peninsula, and to allow the facts on the Kim Jong Nam assassination to emerge. Designating North Korea is a card that should be played only if and when it opens up avenues to resolve the larger strategic issue before Washington and its allies. That issue is to prevent a North Korean strategic nuclear force from becoming a threat to peace and to do so without provoking a second (and potentially nuclear) Korean War. This might be in the context of some major sanctions push in the UN Security Council or even renewed negotiations. At minimum one would hope the Secretary of State will discuss how a designation would affect the calculation of our regional allies and the Chinese during his meetings in the region. The Chinese, in particular, seem concerned that events are moving out of control, at least if the Chinese Foreign Minister's recent characterization of the US and DPRK as two trains moving towards each other at high speed on the same track can be taken seriously.

While Pyongyang may richly deserve the designation as a state sponsor of terrorism, it would be no sin to follow a deliberative pace in the designation process. A little over a hundred years ago, a state sponsored international terrorist political assassination in a strange city far away lit a spark among major powers that were absorbed in other domestic and international concerns. They unwittingly followed the logic of their responses to the assassination into a global war totally disproportionate to the crime. That war led to the fall of three empires, the death of millions and the end of Europe's golden age. In the current environment on the Korean peninsula, taking a few weeks or months to sort things through on a terrorist designation will play to the US long-term advantage.

<http://38north.org/2017/03/jdethomas031415/>

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The Hill (Washington, DC)

### **New Nukes? No Thanks.**

By Darryl Kimball and Charles Carrigan

March 13, 2017

So far, President Trump has provided few details about his approach to his most important job as president: reducing the risks of unconstrained global nuclear competition and preventing a nuclear attack against the United States and our allies.

Instead, the new commander-in-chief has instructed the Pentagon to conduct another review of U.S. nuclear strategy, the fourth since the end of the Cold War and the first since President Obama completed a similar review in 2010.

The Nuclear Posture Review will, among other issues, assess how many nuclear weapons are necessary to deter nuclear attack and whether new types of nuclear weapons are necessary. The review may take a year or more to complete.

However, Trump's cryptic calls for the United States to "strengthen and expand" its already unparalleled nuclear capacity may encourage those who would like to overturn existing U.S. policy — which is to not develop new nuclear warheads or nuclear weapons for new military missions — in order to build new types of "more usable" nuclear warheads.

Last week, the House Armed Services Committee held hearings on nuclear deterrence strategy, including perspectives from members of a Defense Science Board panel that recommended in their Dec. 2016 report the development of a "tailored nuclear option for limited use."

At the hearing, the Defense Science Board members acknowledge there is no military requirement for such a weapon.

Nevertheless, the hearing may be a prelude to attempts by House Republicans to build support for the authorization and appropriation of funds for research and development work for new nuclear warheads.

Proponents argue that this is the appropriate response to the possibility that Russia may employ a military strategy of "escalate to de-escalate," which posits that the threat or the use of a small number of nuclear weapons in a conflict can coerce the enemy to back down.

That's dangerous thinking. Once nuclear weapons are used in a conflict against another nuclear-armed adversary — even in small numbers or in a regional conflict — there is no guarantee that there will not be a nuclear response and a cycle of nuclear escalation leading to all-out global nuclear war.

The fog of war is thick. The fog of nuclear war is even thicker. In a rapidly developing crisis, political and military leaders are working with incomplete information. They have little time to think through highly consequential decisions and often have difficulty communicating with the people commanding their forces — to say nothing about their adversaries. Emotions are high, and the likelihood of miscalculation is increased.

Given these realities, responsible leaders understand that military options that can lead to mutual national suicide should not be on the table. As former National Security Adviser McGeorge Bundy, Amb. George Kennan, former Defense Secretary Robert McNamara and

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former Trilateral Commission Chairman Gerard Smith wrote in *Foreign Affairs* in 1982 about nuclear weapons first-use contingency plans in Europe, "No one has ever succeeded in advancing any persuasive reason to believe that any use of nuclear weapons, even on the smallest scale, could reliably be expected to remain limited."

Building new, low-yield nuclear weapons for battlefield use would represent a radical reversal of existing U.S. nuclear policy and practice. The 2010 Nuclear Posture Review clarified that the "fundamental role of U.S. nuclear weapons is to deter nuclear attack."

U.S. political and military leaders have contemplated the use of nuclear weapons on the battlefield in non-nuclear conflicts in the past, including the Korean War, the Vietnam War, the 1991 Gulf War and the 2003 Iraq War. Each time, U.S. leaders have concluded that the use of nuclear weapons was imprudent and unnecessary.

The pursuit of new, "more usable" nuclear capabilities also would undermine the credibility of U.S. nonproliferation efforts. As our nation tries to turn back the tide of nuclear proliferation worldwide, we cannot afford to take actions that needlessly suggest that nuclear weapons can or should be used as if they were just another kind of weapon in our arsenal.

The diplomatic and security costs of developing and possibly testing new types of nuclear warheads far outweigh any marginal benefits of such arms. President Trump and responsible members of Congress should recognize proposals for new, more usable nuclear warheads for what they are: a dangerous lowering of the nuclear threshold that would make nuclear conflict more likely.

<http://thehill.com/blogs/pundits-blog/defense/323653-new-nukes-no-thanks>

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The New York Times (New York, NY)

### **Why Our Nuclear Weapons Can Be Hacked**

By Bruce Blair

March 14, 2017

It is tempting for the United States to exploit its superiority in cyberwarfare to hobble the nuclear forces of North Korea or other opponents. As a new form of missile defense, cyberwarfare seems to offer the possibility of preventing nuclear strikes without the firing of a single nuclear warhead.

But as with many things involving nuclear weaponry, escalation of this strategy has a downside: United States forces are also vulnerable to such attacks.

Imagine the panic if we had suddenly learned during the Cold War that a bulwark of America's nuclear deterrence could not even get off the ground because of an exploitable deficiency in its control network.

We had such an Achilles' heel not so long ago. Minuteman missiles were vulnerable to a disabling cyberattack, and no one realized it for many years. If not for a curious and persistent President Barack Obama, it might never have been discovered and rectified.

In 2010, 50 nuclear-armed Minuteman missiles sitting in underground silos in Wyoming mysteriously disappeared from their launching crews' monitors for nearly an hour. The

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crews could not have fired the missiles on presidential orders or discerned whether an enemy was trying to launch them. Was this a technical malfunction or was it something sinister? Had a hacker discovered an electronic back door to cut the links? For all the crews knew, someone had put all 50 missiles into countdown to launch. The missiles were designed to fire instantly as soon as they received a short stream of computer code, and they are indifferent about the code's source.

It was a harrowing scene, and apprehension rippled all the way to the White House. Hackers were constantly bombarding our nuclear networks, and it was considered possible that they had breached the firewalls. The Air Force quickly determined that an improperly installed circuit card in an underground computer was responsible for the lockout, and the problem was fixed.

But President Obama was not satisfied and ordered investigators to continue to look for similar vulnerabilities. Sure enough, they turned up deficiencies, according to officials involved in the investigation.

One of these deficiencies involved the Minuteman silos, whose internet connections could have allowed hackers to cause the missiles' flight guidance systems to shut down, putting them out of commission and requiring days or weeks to repair.

These were not the first cases of cybervulnerability. In the mid-1990s, the Pentagon uncovered an astonishing firewall breach that could have allowed outside hackers to gain control over the key naval radio transmitter in Maine used to send launching orders to ballistic missile submarines patrolling the Atlantic. So alarming was this discovery, which I learned about from interviews with military officials, that the Navy radically redesigned procedures so that submarine crews would never accept a launching order that came out of the blue unless it could be verified through a second source.

Cyberwarfare raises a host of other fears. Could a foreign agent launch another country's missiles against a third country? We don't know. Could a launch be set off by false early warning data that had been corrupted by hackers? This is an especially grave concern because the president has only three to six minutes to decide how to respond to an apparent nuclear attack.

This is the stuff of nightmares, and there will always be some doubt about our vulnerability. We lack adequate control over the supply chain for nuclear components — from design to manufacture to maintenance. We get much of our hardware and software off-the-shelf from commercial sources that could be infected by malware. We nevertheless routinely use them in critical networks. This loose security invites an attempt at an attack with catastrophic consequences. The risk would grow exponentially if an insider, wittingly or not, shares passwords, inserts infected thumb drives or otherwise facilitates illicit access to critical computers.

One stopgap remedy is to take United States and Russian strategic nuclear missiles off hair-trigger alert. Given the risks, it is dangerous to keep missiles in this physical state, and to maintain plans for launching them on early indications of an attack. Questions abound about the susceptibility to hacking of tens of thousands of miles of underground cabling and the backup radio antennas used for launching Minuteman missiles. They (and their Russian counterparts) should be taken off alert. Better yet, we should eliminate silo-based missiles and quick-launch procedures on all sides.

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But this is just a start. We need to conduct a comprehensive examination of the threat and develop a remediation plan. We need to better understand the unintended consequences of cyberwarfare — such as possibly weakening another nation’s safeguards against unauthorized launching. We need to improve control over our nuclear supply chain. And it is time to reach an agreement with our rivals on the red lines. The reddest line should put nuclear networks off limits to cyberintrusion. Despite its allure, cyberwarfare risks causing nuclear pandemonium

<https://www.nytimes.com/2017/03/14/opinion/why-our-nuclear-weapons-can-be-hacked.html? r=0>

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War On The Rocks (Washington, DC)

### **Get Real on Iran’s Missile Program**

By Bharath Gopaldaswamy and Amir Handjani

Last month Iran test fired a new ballistic missile. The Trump administration formally put Iran on “notice” and sanctioned entities close to and within Iran’s Revolutionary Guard (IRGC) they believed were responsible for the missile test. Iran not only escalated its rhetoric but conducted subsequent war games in the Persian Gulf. President Trump and Iran’s Supreme Leader Ayatollah Ali Khamenei have traded barbs. After four years during which the Obama and Rouhani administrations worked on a framework to de-escalate tensions between the United States and Iran, it’s now conceivable to envisage a situation where the war of words and posturing could escalate into a military conflict.

First, it is important not to confuse Iran’s missile program with the Joint Comprehensive Plan of Action (JCPOA). The JCPOA, signed by Iran and the P5+1 in July 2015, only addressed Iran’s nuclear related activity. It put restrictions on Iran’s nuclear program and capped its domestic enrichment for more than a decade. Iran’s missile program – which Iranians view as legitimate means of defense – was a matter neither party could reach consensus on.

As such, U.N. Security Council Resolution 2231 not only endorsed the JCPOA but also ended all previous resolutions, including those prohibiting Iran from conducting ballistic missile tests. Resolution 2231 states that: “Iran is called upon not to undertake any activity related to ballistic missiles designed to be capable of delivering nuclear weapons.” The operative phrase “calls upon” entails no force or urgency, and the resolution further limits this clause to ballistic missiles designed to be capable of delivering nuclear weapons.

It is important to note that in 2010, U.N. Security Council Resolution 1929 explicitly prohibited Iran from conducting ballistic missile tests. In blunt diplomatic terms, it stated: “Iran shall not undertake any activity related to ballistic missiles capable of delivering nuclear weapons, including launches using ballistic missile technology.” The new resolution was more tempered in its language because Russia, China and the European negotiating partners in the P5+1 argued that prohibitions on Iran’s missile program were only there to pressure Iran to curb its nuclear ambition; once achieved, they saw no reason to continuing pushing for it.

In fact, Iran’s missile program is more for deterrence purposes than offensive first strikes. It is Iran’s answer to the legacy of Saddam Hussein’s missiles raining on Iranian cities during a brutal eight-year war with Iraq. Furthermore, while the security of Iran’s neighbors is guaranteed by the United States, Iran has no such assurances from any outside power. As

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such it must rely on antiquated systems that are often second or third generation Russian or Chinese in origin. Saudi Arabia, Iran's strategic foe and regional neighbor, spends nine times more annually on its defense budget than does Tehran. Riyadh has the benefit of the very best of Western military technology at its disposal. Its air force has been equipped with long-range air-to-surface missiles that can inflict more damage on Iran's military infrastructure. The United Arab Emirates, with a population one-tenth the size of Iran, has a defense budget exceeding Iran's by 50 percent. Iran is outspent and has less sophisticated weaponry than its neighbors. Any serious discussion about its missile program should take this fact into account.

This is not to say that the United States and its allies shouldn't be concerned with Iran's missile program. Over time, as Tehran conducts more tests and refines its indigenous capabilities, its missiles will become more potent and accurate. However, like the JCPOA experience has shown, truly multilateral negotiations (where Iran's legitimate security concerns are addressed alongside those of its Arab neighbors, Israel and – by extension – the United States) would be a far more effective route for the Trump administration to take, as opposed to verbal escalation, sanctions and isolation. Such tactics didn't work in stopping Iran's drive to perfect the enrichment cycle, and they won't work now to stop its missile development.

While it is difficult to imagine a scenario wherein Iran would ever relinquish its ballistic missile program – especially as the rest of the region continues to expand and modernize its military arsenal – it should not be discounted. Should Iran exit the JCPOA and make a dash for a nuclear weapon, it would take years of testing under rigorous conditions before it could put a capable nuclear warhead on a ballistic missile. Such a dramatic step would be picked up by satellite imagery of Western intelligence agencies well in advance. Thus, the United States will retain escalation dominance over Iran for the foreseeable future. This means the U.S. military will maintain supremacy over any Iranian missile strike at each successive rung up the ladder of escalation, all the way up to the point of a nuclear weapons exchange which Iran does not presently have (because of the JCPOA) and has forsworn to ever seek.

The hawks close to President Trump which advocate for a tougher stance with Iran should remember that any arms control agreement like the JCPOA, is voluntary. The Trump administration should heed the lessons of Bush administration, which over-hyped the threat from Saddam Hussein's weapons of mass destruction to the point where war with Iraq became unavoidable. It would be wiser for Trump to begin engaging in rigorous diplomacy with Iran (as the Obama administration did) and address the issue of the Iranian missile program alongside pressing regional security concerns of both Iran and its neighbors in the region. This will be arduous and difficult – like the negotiations that led to the nuclear deal – and chances of success may be slim as Iran and the United States stand on opposite sides of so many issues. And yet the alternative of escalation, sanctions and confrontation will lead to another war in the Middle East – something Trump explicitly campaigned against, and a promise his supporters endorsed.

<https://warontherocks.com/2017/03/get-real-on-irans-missile-program/>

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## ABOUT THE USAF CUWS

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 CUWS'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.

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