



UNITED STATES AIR FORCE CENTER FOR
UNCONVENTIONAL
WEAPONS STUDIES

OUTREACH JOURNAL

Issue No. 1283
29 September 2017

29 Sept 2017 CUWS Outreach Journal

Featured Item: *“Strengthening the Counter-Illicit Nuclear Trade Regime in the Face of New Threats: A Two-Year Review of Proliferation Threats Associated with the Middle East”*. Written by David Albright, Andrea Stricker, Sarah Burkhard and Erica Wenig, published by the Institute for Science and International Security; September 12, 2017

[http://isis-online.org/uploads/isis-reports/documents/Final Policy Report Threats to Counter Illicit Trade Regime 12Sept2017 Final.pdf](http://isis-online.org/uploads/isis-reports/documents/Final_Policy_Report_Threats_to_Counter_Illicit_Trade_Regime_12Sept2017_Final.pdf)

The United States’ and associated global export control regime is losing ground due to several global events and trends underway in the United States and the Middle East. The developments at home and abroad are reducing controls and oversight over the flow of commodities vital to the development of nuclear weapons. Unless these trends are reversed, U.S. efforts to stem and stop nuclear proliferation in the Middle East and elsewhere will weaken. Events contributing to this greater proliferation danger include: 1) relaxed U.S. export control regulations and greater emphasis on global trade with streamlined exchange of intellectual property and commodities, including nuclear commodities; 2) on-going questions over the strong regulation of sensitive trade to Iran’s nuclear and ballistic missile programs; and 3) the expected actions of additional states to obtain nuclear capabilities to counterbalance Iran. This report provides findings from four studies that were part of a two-year Institute for Science and International Security review which identified threats to the United States’ and interconnected global export control regime and actions to take now to mitigate damages.

The review found that U.S. policy goals should include strong efforts to restrict the flow of sensitive technologies to the Middle East where proliferation and security concerns are currently high. This includes examining its own export control reforms and repairing new or ongoing deficiencies that contribute to the spread of sensitive military or other technologies. It should work to negotiate or otherwise impose the extension of limitations on Iran’s nuclear program in the Joint Comprehensive Plan of Action (JCPOA), since the legitimization of Iran’s advanced nuclear program exacerbates proliferation concerns. It should counter illicit nuclear and missile trade in the Middle East and elsewhere, which could support nuclear weapons development. The United States should affirm its strong defensive commitment to allies such as Saudi Arabia, the United Arab Emirates (UAE), Turkey, and Egypt, while working against their development or import of advanced fuel cycle capabilities. The United States should also support the implementation of strong controls and transparency measures in the Middle East to ensure that burgeoning civilian nuclear programs remain peaceful, such as commitments not to enrich or reprocess, implementation of the Additional Protocol, and provision of secure, lifetime fuel supplies for nuclear reactors. It should monitor via national intelligence capabilities any concerning research or imports by Middle East nations that could signify proliferation intentions, and use all available diplomatic or coercive means to prevent additional nuclear proliferation. Finally, the United States and its allies should work to reduce Middle East security tensions and develop threat reduction efforts more broadly.

TABLE OF CONTENTS

US NUCLEAR WEAPONS

- [Nuclear Modernization Programs Advancing Amid Doubts \(UPDATED\)](#)
- [Navy \\$5 Billion Deal Builds New Nuclear-Armed Columbia-Class Sub](#)
- [Nuclear Modernization Critical To Nation's Defense](#)
- [Without New Nuclear Weapon, B-52 Bomber Mission Ends, General Warns](#)

US COUNTER-WMD

- [Metro Transit Police To Receive Radiation Detectors In Face Of 'dirty Bomb' Threat](#)
- [Homeland Security Struggling to Fund Chem-Bio Defense](#)
- [As N. Korea Threatens Nuclear Missile Test, Are US Ballistic Defenses Ready?](#)
- [This Obscure DC-Area Office Helps US Special Operators Hunt Down And Secure Loose WMDs](#)

US ARMS CONTROL

- [Despite Tensions, U.S. Sees Value in New START Treaty With Russia](#)
- [Russia to retaliate against U.S. in military observation flights row: agencies](#)
- [Russia Accuses US Of Missile Treaty Breach](#)
- [US Invites World To Nuclear Weapons Race](#)

ASIA/PACIFIC

- [North Korea Also Has Nerve Agent VX, Chemical Weapons Expert Warns](#)
- [Domestic UDMH Production In The DPRK](#)
- [North Korea's Nuclear Weapons Are Deterring Us First Strike, Russian Official Says](#)
- [Could North Korea's Example Inspire Iran and Pakistan?](#)

EUROPE/RUSSIA

- [Report: Russia Continues to Use Nuclear Threats to Intimidate Neighbors](#)
- [Russia's Rubezh Ballistic Missile Disappears off the Radar](#)
- [Ryabkov: US Provided No Proof of Russia's Alleged INF Treaty Violations](#)
- [Washington Will Not Tolerate Russia's Military Advantage — US Military Chief](#)

MIDDLE EAST

- [Trump's Criticism Of The Iran Nuclear Deal May Only Lead To More Nuclear Weapons](#)
- [European Envoys Join Arms To Defend Iran Deal](#)
- [Iran Tests Missile Despite Trump Pressure](#)
- [Syria Calls Out 'Double Standard' For Israel Nuclear Arsenal](#)

INDIA/PAKISTAN

- [Indian Army Might Get Pinaka Rockets To Counter Pakistan's Mini-nuclear Weapons](#)
- [US NSA Spying On India's Nuclear Weapons](#)
- [India, US Should Go For Pre-emptive Strikes, Destroy Pak's N-assets: Ex-US Senator](#)
- [India Calls For Building Trust, Confidence Among Nuclear Weapon States](#)

AFRICA

- [Chemical Warfare Threatens Nigeria's Economy – Group](#)
- [President Zuma Signs UN Treaty Banning Nuclear Weapons](#)

COMMENTARY

- [Why Donald Trump Wants His Nukes to Be Smaller](#)
- [The Nuclear Threat Can Be Contained By Diplomacy](#)
- [Is It Time For Japan To Go Nuclear?](#)
- [The Lamps are Going Out in Asia](#)

US NUCLEAR WEAPONS

National Defense Magazine (Arlington, VA)

Nuclear Modernization Programs Advancing Amid Doubts

By Jon Harper

September 26, 2017

The Air Force is moving forward with plans to develop new ground-based intercontinental ballistic missiles and air-launched cruise missiles. But there are doubts about whether the programs will be fully funded in the coming decades.

In August, Boeing and Northrop Grumman were awarded \$349 million and \$329 million contracts respectively to conduct technology maturation and risk reduction work for the Ground-Based Strategic Deterrent, known as GBSD, which is expected to replace legacy ICBMs. The goal is to “deliver a low technical risk, affordable total system replacement of Minuteman III,” the Defense Department said in a news release.

The Air Force also awarded Lockheed Martin and Raytheon \$900 million each for the technology maturation and risk reduction phase of the Long Range Stand-Off weapon, known as LRSO, which is intended to replace aging AGM-86B air-launched cruise missiles.

But some analysts question whether enough money will be available to fully fund the GBSD and LRSO programs down the road. The Pentagon is also pursuing next-generation stealth bombers and ballistic missile submarines, which could compete for procurement dollars.

“All three legs of the U.S. nuclear triad are currently slated for modernization in the next 10 to 20 years,” Amy Woolf, a nuclear weapons policy specialist, said in a recent Congressional Research Service report titled, “U.S. Strategic Nuclear Forces: Background, Development and Issues.”

“Each of these programs is likely to stress the budgets and financial capabilities of the services,” she added.

Pentagon cost estimates for the GBSD program have ranged from \$62 billion to \$85 billion. The LRSO program has been estimated to cost \$10.8 billion, Woolf said.

Defense Department officials have said that current nuclear modernization plans could come with a \$350 billion to \$450 billion price tag over the next 20 years, and some think tank analysts have projected even higher costs. At the same time, the Pentagon will also be trying to fund big-ticket conventional weapon systems such as the F-35 joint strike fighter.

“While the Air Force appears committed to pursuing the development of a new ground-based strategic deterrent, there is growing recognition among analysts that fiscal constraints may alter this approach,” Woolf said.

The ongoing Nuclear Posture Review is likely to strongly reaffirm the need to maintain and modernize all three legs of the triad, said Mackenzie Eaglen, a defense budget expert at the American Enterprise Institute.

That conclusion would have strong political support from President Donald Trump and Congress, she said. Whether the efforts will be fully funded in accordance with the Pentagon’s schedule is another matter.

The budgets that Trump has already proposed and the expected topline figures for the fiscal year 2019 budget blueprint “simply do not support full modernization,” Eaglen said in an email. “Things

will get squeezed and pushed to the right. The most likely candidate is the ground-based leg, partly because it is the last to modernize and partly because it is easily criticized as the most vulnerable leg.”

Unofficially, there is a hierarchy of support for the different components of the next-generation nuclear force, she said. The Navy’s Columbia-class ballistic missile submarine tops the list, followed by the B-21 bomber and the GBSD. “Funding will flow accordingly,” she said.

All three legs could see funding and quantity trims, she added.

The most controversial of the nuclear modernization programs is the Long Range Stand-Off weapon.

“Analysts outside government and several members of Congress have questioned whether the Air Force needs to accelerate the LRSO program and whether the United States needs and can afford to develop and produce a new cruise missile in the coming decade,” Woolf said. “They have questioned whether the capabilities provided by the LRSO may be redundant, as the Air Force is also developing a new penetrating bomber.”

A contingent of Democratic lawmakers has come out strongly against the new cruise missile, creating additional uncertainty about its future prospects.

“It is super controversial,” Eaglen said. “This program will be a partisan fight from beginning to end.”

<http://www.nationaldefensemagazine.org/articles/2017/9/26/nuclear-modernization-programs-moving-forward>

[Return to top](#)

Scout Warrior (Minnetonka, MN)

Navy \$5 Billion Deal Builds New Nuclear-Armed Columbia-Class Sub

By Kris Osborn

September 21, 2017

The Navy has awarded a \$5.1 billion contract to General Dynamics Electric Boat for Integrated Product and Process Development of the COLUMBIA Class submarine, a next-generation nuclear-armed ballistic missile submarines designed to ensure a second-strike capability in the event of a nuclear attack on the United States.

The contract award is for the design, completion, component and technology development and prototyping efforts for the COLUMBIA Class Fleet Ballistic Missile Submarines (SSBNs), a Navy statement said. This work will also include United Kingdom unique efforts related to the Common Missile Compartment.

The \$5 billion contract award comes amid concurrent Navy efforts to accelerate design support, development and construction the new class of submarines-- to ensure rapid progress toward the goal of engineering the most lethal, high-tech and advanced ballistic missile submarines the world has ever seen.

“The COLUMBIA class submarine is the most important acquisition program the Navy has today,” Secretary of the Navy Richard V. Spencer said in a statement. “This contract represents a significant investment in maintaining our strategic deterrent into the future, as well as our ongoing partnership with the United Kingdom.”

Designed to serve well into the 2080s and beyond, Navy and General Dynamics Electric Boat developers are hoping to leverage years of science and technology development to best position the new submarine to enter service by 2031.

"Awarding this contract is an important step in ensuring an on-time construction start in FY 2021," Rear Admiral David Goggins, COLUMBIA Class Program Manager, said in a service statement.

The large, multi-billion dollar deal follows a DoD \$203 million modification to an existing deal between the Navy and General Dynamics Electric Boat earlier this year - to begin manufacture of 17 new tactical missile tubes able to fire nuclear-armed Trident II D5 missiles.

The current effort has been preceded by "tube and hull" forging work underway for several years, is part of a collaborative US-UK Common Missile Compartment program.

The US and UK are together immersed in a common missile compartment effort. In fact, the US and UK have been buying parts together for the common missile compartment and working on a \$770 million contract with General Dynamics' Electric Boat.

The US plans to build 12 new Columbia-Class Submarines, each with 16 missile tubes, and the UK plans to build four nuclear-armed ballistic submarines, each with 12 missile tubes.

The Navy and Electric Boat previously completed specifications for the new Columbia-Class submarines, and the program has been progressing through a detailed design phase and initial production contract, service officials said.

In January of this year, development of the new submarines have passed what's termed "Milestone B," clearing the way beyond early development toward ultimate production. Production decisions are known as "Milestone C."

Ultimately, the Navy hopes to build and operate as many as 12 new nuclear-armed submarines, to be in service by the early 2040s and serve well into the 2080s.

Columbia-Class submarines are scheduled to begin construction by 2021. Requirements work, technical specifications and early prototyping have already been underway at General Dynamics Electric Boat.

Designed to be 560-feet- long and house 16 Trident II D5 missiles fired from 44-foot-long missile tubes, Columbia-Class submarines will be engineered as a stealthy, high-tech nuclear deterrent able to quietly patrol the global undersea domain.

The new submarines are being designed for 42 years of service life.

Construction on the first submarine in this new class is slated to be finished up by 2028, with initial combat patrols beginning in 2031, service officials said.

Strategic Nuclear Deterrence

The Navy is only building 12 Columbia-Class submarines to replace 14 existing Ohio-class nuclear-armed boats because the new submarines are being built with an improved nuclear core reactor that will better sustain the submarines, Navy officials have said.

As a result, the Columbia-Class submarines will be able to serve a greater number of deployments than the ships they are replacing and not need a mid-life refueling in order to complete 42 years of service.

With the life of ship reactor core, there is not a need for mid-life refueling, Navy developers explained.

By engineering a "life-of-ship" reactor core, the service is able to build 12 SSBNs able to have the same at sea presence as the current fleet of 14 ballistic missile submarines. The plan is intended to save the program 40 billion savings in acquisition and life-cycle cost, Navy developers said.

Electric Boat and the Navy are already progressing on early prototype work connecting missile tubes to portions of the hull, officials said. Called integrated tube and hull forging, the effort is designed to weld parts of the boat together and assess the ability to manufacture key parts of the submarine before final integration.

Next-Generation Technology

Columbia-Class submarines are being designed with a series of next-generation technologies, many of them from the Virginia-Class attack submarine. Leveraging existing systems from current attack submarines allows the Columbia-Class program to integrate the most current technologies and systems while, at the same time, saving the developmental costs of beginning a new effort, officials said.

The Columbia-Class will utilize Virginia-class's fly-by-wire joystick control system and large-aperture bow array sonar. The automated control fly-by-wire navigation system is also a technology that is on the Virginia-Class attack submarines. A computer built-into the ship's control system uses algorithms to maintain course and depth by sending a signal to the rudder and the stern.

Sonar technology work by sending out an acoustic ping and then analyzing the return signal in order to discern shape, location or dimensions of an undersea threat.

Navy experts explained that the large aperture bow array is water backed with no dome and very small hydrophones able to last for the life of the ship; the new submarines do not have an air-backed array, preventing the need to replace transducers every 10-years.

The submarines combat systems from Virginia-class attack submarines, consisting of electronic surveillance measures, periscopes, radios and computer systems, are also being integrated into the new submarines.

The shafts of the new submarines are being built to last up to 10 or 12 years in order to synchronize with the ships maintenance schedule. Existing shafts only last six to eight years, developers said.

The Columbia-Class will also use Virginia-class's next-generation communications system, antennas and mast. For instance, what used to be a periscope is now a camera mast connected to fiber-optic cable, enabling crew members in the submarine to see images without needing to stand beneath the periscope. This allows designers to move command and control areas to larger parts of the ship and still have access to images from the camera mast, Electric Boat and Navy officials said.

The Columbia-Class submarine are also engineering a new electric motor for the submarine which will turn the shaft and the rotor for the propulsion system. The new motor will make propulsion more efficient and potentially bring tactical advantages as well.

In total, the Navy hopes to buy 12 of the new submarines to serve into 2085 and beyond.

<http://scout.com/military/warrior/Article/Navy-5-Billion-Deal-Builds-New-Nuclear-Armed-Columbia-Class-Sub-107766820>

[Return to top](#)

United States Air Force (Washington, DC)

Nuclear modernization critical to nation's defense

By Nikita Thorpe

September 19, 2017

Senior leaders emphasized the need for modernization in the nuclear force at the Air Force Association's Air, Space and Cyber Conference, Sept. 18, 2017.

Nuclear deterrence has continued to be the foundation of the nation's strategic defense since World War II and transformed the focus of warfare from winning to averting future war, panel members said.

"The wings have never been more important than they are today," said Gen. Robin Rand, commander of Air Force Global Strike Command. "The men and women who are performing the intercontinental ballistic missile mission...are what keeps the world from completely spinning off its axis."

To ensure the U.S. nuclear triad remains robust, flexible, resilient and ready, the Air Force will sustain the ICBM capability by replacing the Minuteman III with the ground-based strategic deterrent, said Rand.

According to panel members, Air Force leaders have foresight and vision to pursue modernization in regards to nuclear deterrence. The new ground-based deterrent provides more efficient operations, maintenance and security by modernizing critical infrastructure and lowering life cycle costs.

Panel members stated the ICBM leg of the triad is the least expensive, but it is not cost effective to sustain. Modernizing will reduce operational and sustainment costs, resulting in a reliable system through 2075.

Although the Minuteman III is an aging weapons system, it will continue to provide a reliable and effective nuclear capability and deterrent for the U.S., its allies and security partners until replaced by the new deterrent system.

"We are actually here talking about how to maintain the credibility on a weapons system that is still very very lethal," said Maj. Gen. Anthony Cotton, 20th Air Force commander. "As soon as you lose credibility the deterrence factor goes away. Right now I will tell you - we are credible."

Rand stated the new deterrent is needed to ensure the weapons system remains lethal through reliability, survivability and the will to use it.

"[Ground-based strategic deterrence] has brought the passion back," said Cotton. "We are putting our money where our mouth is in regards to revitalization and modernization of a very potent weapons system, [making it] an even more lethal weapons system in the future."

<http://www.af.mil/News/Article-Display/Article/1316155/nuclear-modernization-critical-to-nations-defense/>

[Return to top](#)

Military.com (San Francisco, CA)

Without New Nuclear Weapon, B-52 Bomber Mission Ends, General Warns

By Oriana Pawlyk

September 19, 2017

If the United States doesn't invest seriously in the Long Range Standoff Weapon, commonly known as LRSO, it can kiss the future of the B-52 Stratofortress bomber goodbye, the head of U.S. Strategic Command said Wednesday.

Gen. John Hyten said the LRSO is necessary for the B-52 long-range bomber because the B-21 Long Range Strategic Bomber -- the Pentagon's latest classified multi-billion dollar program -- can carry out only one nuclear mission at a time.

"We expect [the B-52] to be a nuclear-capable platform" lasting into the 2050s, Hyten told the audience during a speech at the Hudson Institute in Washington, D.C.

The LRSO program would replace the AGM-86B Air Launched Cruise Missile, known as ALCM, developed in the early 1980s.

"Not only is [ALCM] ancient, it's difficult to maintain, almost impossible to fly. We won't be able to fly it much longer, but it's also built for a different threat environment," the general said.

Hyten said the threat has evolved over the last 40 years, and ALCM is not "the air-launched cruise missile we need today."

Air-Launched Capability

By comparison, LRSO is a nuclear-capable cruise missile launched from aircraft such as the B-52, providing an air-launched capability as part of the nuclear triad -- of which the Air Force oversees two parts.

"Without [LRSO], we don't have the B-52 as a viable platform" anymore, Hyten said.

The LRSO is also planned for the B-2 Spirit and future B-21 Long-Range Strike Bomber.

The B-1B Lancer is not slated to receive the weapon because it is no longer a nuclear-capable bomber, Air Force officials told Military.com last month.

The Spirit, by comparison, currently carries the B83 and the B61 thermonuclear gravity bombs.

How many LRSOs are planned for the B-52 remains classified, officials told Military.com on Thursday.

B-21's Limited Nuclear Role

"A penetrating bomber, like the B-21, that can only drop gravity bombs and attack how many targets at once with a nuclear weapon? The answer is one," he said.

The B-21 will have both nuclear and non-nuclear roles. Conventionally, the B-21 can go after multiple targets, but can carry out only one nuke drop at a time, Hyten said.

"That means that every B-21 only goes after one target" in a nuclear scenario, he said.

Hyten's comments come one month after the Pentagon awarded Lockheed Martin Corp. and Raytheon Co. contracts to begin preliminary work on LRSO.

The defense contractors were awarded agreements valued at \$900 million apiece and lasting almost five years "to mature design concepts and prove developmental technologies," the Air Force said.

How Many Bombers for the Air Force?

The service is weighing just how many B-21 LRS-Bs it truly needs.

The Air Force in June said it wants a total future bomber fleet, not just B-21s, to be around 165 aircraft.

Lawmakers and service officials have gone back and forth on whether the Air Force should acquire more than 100 B-21s.

Rep. Mike Gallagher, a Republican from Wisconsin, questioned whether the Air Force should buy more of the bombers, which will be designed in part to fight through surface-to-air missiles and protect coalition aircraft and drones.

Given the increasingly advanced air defense systems deployed by countries such as Russia, China, Iran and North Korea, he added, "It seems to me the right number of bombers should be north of 160," he said during the House Armed Services Committee's Seapower and Projection Forces Subcommittee on May 25.

Testifying before the committee, Lt. Gen. Jerry D. Harris, deputy chief of staff for strategic plans and requirements, replied, "We do agree that probably 165 bombers is what we need to have."

The 165, however, "refers to the total number of bombers, not the number of B-21s," Air Force spokeswoman Ann Stefanek later clarified to Military.com.

The service plans to spend more than \$55 billion to acquire 100 of the next-generation aircraft as part of the LRSB program.

The Air Force currently has 62 B-1B Lancers, 20 B-2 Spirits, and 77 B-52 Stratofortresses, totaling 159 bombers, Stefanek said.

<http://www.military.com/daily-news/2017/09/21/without-new-weapon-b52-bomber-mission-ends-general-warns.html>

[Return to top](#)

US COUNTER-WMD

WTOP (Washington, DC)

Metro Transit Police to receive radiation detectors in face of 'dirty bomb' threat

By Max Smith

September 26, 2017

If anyone tried to deploy a "dirty bomb" or other radiological weapon in the D.C. region, Metro Transit Police officers might be the first line of defense, and Thursday, the Metro Board is expected to formally accept radiation detection devices purchased for each member of the police department.

The transit police officers play a critical role in efforts to reduce the risk of a radiological terror attack because of the large area the agency covers, briefing documents for the Metro Board said.

The devices were purchased through a federal Homeland Security grant.

“The MTPD role in regional operation plans is to successfully prevent, deter, detect, and interdict the illicit use, storage, or transportation of radiological/nuclear material that could be used to attack WMATA or other critical infrastructure in the (National Capital Region),” the documents said.

The Metropolitan Washington Council of Governments used \$2.4 million in federal grant funding to buy 375 personal radiation detectors for transit police officers, plus more than 80 specialized devices for use by special teams or in special circumstances. Those specialized devices include 10 portable systems that can be used at security checkpoints and 11 devices that identify the type of isotope emitting the detected radiation.

Metro Transit Police plan to train all officers on how to use the personal detection equipment, and about 60 officers will be trained on how to use the specialized devices that can be used either for incidents in the Metro system or anywhere else in the region.

Officers will carry the personal detection devices daily as part of the regular gear. The devices last five to seven years.

<http://wtop.com/tracking-metro-24-7/2017/09/metro-transit-police-to-receive-radiation-detectors-as-defense-against-dirty-bomb-threat/>

[Return to top](#)

National Defense Magazine (Arlington, VA)

Homeland Security Struggling to Fund Chem-Bio Defense

By Vivienne Machi

September 22, 2017

The Department of Homeland Security is facing prolonged budget cuts in its chemical and biological defense portfolio, as it works to address concerns that state and local municipalities are underprepared for a potential attack.

As technologies advance, the prospect of an adversary using a biological weapon — involving biological toxins or infectious agents such as bacteria or viruses — or a chemical warfare agent to target the U.S. homeland is becoming more probable, analysts and officials said.

In terms of biosecurity, “we are much better prepared than we were” post-9/11, said Tom Inglesby, director of the Center for Health Security at the Johns Hopkins School of Public Health in Baltimore, Maryland. “But we are not where we need to be, and the progress is, in some cases, somewhat fragile.”

The world has witnessed the use of chemical weapons against hundreds of people in Syria in recent years, said Rebecca Hersman, director of the project on nuclear issues at the Center for Strategic and International Studies, a Washington, D.C.-based think tank. Earlier this year, the half-brother of North Korean leader Kim Jong Un was assassinated in Malaysia with the nerve agent VX, and the Islamic State has launched multiple chemical attacks against Iraqi and Syrian forces since 2016.

“So what you are seeing ... is a recognition at the state and local level and across DHS that chemical threats, even from a domestic perspective, may have been pushed too far off-burner,” she said.

The department’s science and technology directorate took a 28 percent budget cut when the omnibus bill for fiscal year 2017 was signed in May, and the chemical biological defense division is “taking a cut much more significant than that” in fiscal year 2018, said John Fischer, division director.

“I wish I were flat, but I’m not,” he said at the National Defense Industrial Association’s Chemical-Biological-Radiological and Nuclear Defense Conference in Wilmington, Delaware.

The directorate in May released a budget overview for congressional justification, which stated over \$58 million would be put toward chemical, biological and explosive defense research and development for 2017, assuming a continuing resolution would remain in effect for the rest of the fiscal year. Less than \$53 million was requested for 2018, according to the document. DHS did not respond to requests for an interview.

Programs to develop biosurveillance systems to collect and exploit data in the case of an attack, build more reliable chemical detectors, and develop repositories of biothreat agents that could be used for detection, response and recovery, all see budget reductions in 2018, according to the budget document.

Fischer attributed part of the reason for his directorate’s budget cuts to President Donald Trump’s stated priorities for homeland security.

“The priorities are: increased border security along the southern border, hiring 15,000 more Customs and Border [Protection] agents, and increasing the number of detention facilities for undocumented immigrants,” he said. “That is consuming the budgets. Everybody else within DHS ... is contributing to those priorities.”

Fiscal tightening across the Defense Department also had an impact on military programs that develop chemical and biological countermeasures for civilian use.

The Army’s Medical Research Institute of Chemical Defense at Aberdeen Proving Ground, Maryland, has seen decreased funding since the Budget Control Act was enacted in 2011, said James Dillman, director of research.

The institute discovers and develops medical countermeasures against chemical and biochemical threats via early-stage and pre-clinical research, education and training, and consultation, Dillman said.

Budget constraints have caused the organization to “really narrow our focus” in research opportunities, he noted.

Dillman’s team is currently focused on several countermeasures that could offer protection for the homeland. The Improved Nerve Agent Treatment System, or INATS, includes several new medications that combined, could counter a wider spectrum of nerve agents, he said.

Nerve agents — such as sarin or VX — prevent an enzyme called acetylcholinesterase from breaking down acetylcholine and stopping stimulatory signals.

“You end up with this ramped-up stimulated response to that signal, and that’s what causes ... changes in heart rate, increased secretions, difficulty breathing and convulsions,” Dillman said.

INATS is “trying to address the problem in two different ways,” he continued. “One is trying to block the receptor that has been activated by acetylcholine. And the other is to get the inhibited acetylcholinesterase enzyme back working again.”

The institute is also working on an advanced anti-convulsant system, which would be the next step of treatment for an attack involving nerve agents after medication, Dillman said.

A new way of administering antidotes for cyanide — which affects cellular processes — is also in the works.

“The current cyanide antidote is intravenous, so we’re looking to develop something ... that you could inject intramuscularly, because that would be easier to administer to a patient,” Dillman said.

That countermeasure is currently in pre-clinical study, but the institute is looking to transition it “in the near future” to an office that handles advanced development, such as the Joint Program Executive Office for Chemical and Biological Defense’s Medical Countermeasures Systems or the Biomedical Advanced Research and Development Authority, he added.

The institute is also working to create a countermeasure for mustard gas and other chemicals that target a victim’s skin, eyes and mucus membranes. It is in early-stage development, Dillman said. “Most of the treatment for mustard [gas] is really supportive care ... treating it very similarly as you would a burn.”

The United States boosted research and development for biological defense in the immediate aftermath of 9/11, after five people were killed and 17 infected by anthrax spores sent through the mail, said Ellen Carlin, senior health and policy specialist at the EcoHealth Alliance, a New York-based nonprofit.

But that early ramp-up “has certainly declined” in the 16 years since the attack, perhaps due to “a complacency that sets in” once enough time has passed since a major incident, she added.

“We skate from one emergency to another,” she said. “We have not created an infrastructure for health security preparedness that’s actually commensurate to the need.”

Carlin is co-director of the Blue Ribbon Study Panel on Biodefense, a bipartisan group established in 2014 to assess gaps and provide recommendations to improve U.S. biodefense.

The panel’s 2015 report titled, “A National Blueprint for Biodefense: Leadership and Major Reform Needed to Optimize Efforts,” outlined 33 policy recommendations to improve the nation’s posture toward biosecurity threats, she said.

One key recommendation — to develop, implement and update a comprehensive national biodefense strategy — has moved ahead, she noted. The Fiscal Year 2016 National Defense Authorization Act included language that required four departments — DHS, Health and Human Services, Defense Department and the U.S. Agency for International Development — to create such a strategy, she said.

“The uptick of that particular recommendation is really critical and really central,” she noted. “If they get that right, a lot of the other recommendations can fall into place.”

Despite its projected budget shortfall, DHS is making new investments for chemical and biological defense to better protect major municipal infrastructures and control potential threat agents.

The budget document includes \$5 million to begin building a permanent biodetection test bed in a major subway system. DHS is looking to create and certify the test bed by the end of 2018, it added.

“Subway systems are attractive targets for potential acts of bioterrorism, particularly with aerosolized biological agents,” the document said. A DHS fiscal year 2016 field study in the New York City subway simulated a biological agent release, and confirmed predictions that “contamination will be widespread and a major public health crisis will occur,” it continued.

Fischer said DHS is in discussions with several major cities to potentially host such a test bed. He declined to name them.

There’s a “growing concern within a number of cities in this country that a chemical-biological threat is imminent, and they need to pay a lot more attention,” he said.

New York City has expressed interest in partnering with DHS to implement the test bed, but it could be deployed in other major subway systems, the document said.

Government personnel such as the Secret Service are also requesting additional protective gear, Fischer said. Hersman said first responders should receive more training and protection as their work brings them more frequently into contact with threat agents.

DHS must also devote resources to studying how advancements in synthetic biology and genetic engineering could be misused for nefarious purposes, the document said. Three million dollars could go toward developing a system for ongoing monitoring and assessment of synthetic biology risks, based on a risk spectrum being developed by the Intelligence Advanced Research Projects Activity.

Where once a scientist would have to duplicate an infectious agent, it is now possible to synthesize viruses from scratch, Inglesby said.

“We’re beginning to find ways to create life artificially just from the genetic code,” he said. An adversary could now theoretically recreate the smallpox virus — largely eradicated in the 20th century — and weaponize it. The global level of smallpox vaccine supply is now “relatively modest,” he noted.

Synthetic biology could be an “incredible benefit for humanity and will do great things for medicine and agriculture,” Inglesby said. “But there’s also a potential downside that we need to consider.”

Fischer said a division goal is to increase chemical detection capabilities in areas that may be vulnerable to an attack.

The department could stand up a chemical defense system that operated in major cities across the country to detect potential threats, as it has already done on the biodefense side, he noted. DHS stood up the BioWatch program in 2003 to detect the release of pathogens in the air, operating in over 30 U.S. cities, according to a 2015 Government Accountability Office report.

BioWatch is run by DHS’ Office of Health Affairs, which stated in its 2018 presidential budget document that the program would remain deployed and operational. OHA requested over \$77 million in 2018 for chemical and biological readiness, to include BioWatch, about \$5 million less than what it expected to spend through 2017.

Many experts do not believe the program is “meaningfully buying down risk,” Carlin said, noting that environmental detection is a difficult technology challenge. DHS should leverage technologies from the Defense Department and industry to create a system that improves time to detection, she added. The BioWatch Gen-3 program attempted to do just that, but the program was canceled in 2014, according to the GAO report.

“If we can’t do that, the existing annual resources are probably better spent on other biodefense efforts,” she said.

Fischer said the department is also working to loosen its dependence on products originally developed for troops overseas.

DHS “depends heavily” on hardware and gadgets developed for the military that are then tailored for the civilian environment. One example is altering a chemical detection system so that it ignores harmless chemical byproducts, like diesel fumes and perfume, and focuses on the actual threat, he said.

The future permanent subway test bed would be acquired that way, he noted.

His department is also “on the cusp” of developing its own acquisition lifecycle program.

“Within the chem-bio trade space within DHS, we have no lifecycle approach to anything,” he said. “We could develop all of the cool stuff that you want, but when you start talking about transitioning to a state and local [government], the process breaks down.

“The fact that we’ve finally got a success where we’re putting hardware out there ... it’s a long time coming,” he said.

<http://www.nationaldefensemagazine.org/articles/2017/9/22/homeland-security-struggling-to-fund-chem-bio-defense>

[Return to top](#)

Ars Technica (San Francisco, CA)

As N. Korea Threatens Nuclear Missile Test, Are US Ballistic Defenses Ready?

By Sean Gallagher

September 26, 2017

If the US had to shoot down a North Korean missile, these are the systems that would do it.

After suffering yet another round of sanctions, as well as a provocative UN speech and further sanctions from President Donald Trump, North Korea's leaders have hinted that more ballistic missile and nuclear weapons tests are to come—including a possible atmospheric nuclear test launched on a ballistic missile.

Given the other antics that North Korea has apparently engaged in—including fake text and social media messages to US Defense Department civilians in South Korea ordering an evacuation of non-combat personnel—making a judgment call on what North Korea may or may not do in the short term is very difficult. But the North Korean military has performed 15 ballistic missile tests this year, including at least two intermediate range ballistic missiles (IRBMs) and one potential intercontinental ballistic missile (ICBM). Combined with North Korea's recent test of what appears to have been a thermonuclear bomb, the new long-range missiles raise the stakes for the US military's ballistic missile defense capabilities.

If North Korea seeks to prove that it can deliver a nuclear weapon effectively, the country's next test could carry an actual warhead. But such a test—or even the suggestion of such a test—could push the US and its allies Japan and South Korea into attempting to shoot down the next launch. That is, if the test fits into the envelope of existing missile defenses—and the risks of a successful (or even failed) test outweigh the risks of trying to shoot it down.

The bigger question is whether the US and its allies are in a position to stop an actual nuclear attack from North Korea. And thanks to some recent events, the answer to that question is uncertain.

Athena's shield

Right now, the brunt of the ballistic missile defense mission falls upon the US Navy's Aegis Ballistic Missile Defense (Aegis BMD) system. The Aegis system is being deployed on land as well as aboard ships. Two Aegis Ashore BMD batteries, replicating the entire shipboard system, have been built so far (one in Poland, one in Romania). Japan intends to build an Aegis Ashore system of its own. But, for now, the North Korean intermediate-range missile threat against Japan and Guam is being faced mostly by the Navy's forward-deployed Aegis destroyers and cruisers stationed in Yokosuka, Japan. That force has been diminished by the recent collisions involving the USS Fitzgerald and USS John S. McCain.

The Aegis system began as an air defense system for carrier battle groups, originally intended for a new class of missile cruisers in the 1970s. Since then, it has evolved into a networked sensor and weapons control system with reach far beyond the range of its iconic "stop sign" radar panels. At the core of all the Aegis systems deployed—including the Romanian and Polish Aegis Ashore facilities—is the SPY-1 radar system, a collection of four, 12-foot octagonal panels of S-band radar sensors.

Earlier this year, Ars visited the Navy's USS Rancocas, the "Cruiser in the Cornfield" (also known as the Vice Admiral James H. Doyle Combat Systems Engineering Development Site) and the neighboring Lockheed Martin Aegis assembly operation in Moorestown, New Jersey. Moorestown is where every radar system is given its final "burn in" before delivery. There, we got a walk-through of the guts of an operating Aegis radar room. While Lockheed Martin and the Navy have tested an active phased array version of the SPY-1 (designated the SPY-1E SBARS)—in which each of the more than 4,000 transmitting "radiators" generate its own signal—all the currently deployed SPY-1 systems use passive arrays. The radiators have radio energy generated by eight transmitters pushed through them via a maze of wave guides. (I was not certain if it was the large amount of coffee that I had consumed that day or the several megawatts of radio energy passing inches above my head that made me feel jittery).

The SPY-1D, the current system, is capable of tracking targets the size of a golf ball out to 70 miles, and it can track targets the size of a ballistic missile warhead from more than 180 miles. Soon after the Aegis system's original deployment, it had to be upgraded because the system was triggering alerts from swarms of insects and "ground clutter" caused by stray reflections from terrain. Additional software—Aegis Baseline 9—was added to ships fitted for Aegis BMD, allowing them to track ballistic missiles using input from outside sources. That input includes communication with space-borne and other long-range early-warning sensors, and even shore-based missile defenses like the Patriot system—essential, because its interceptor missile component requires a much farther reach.

Bullet to bullet

The primary interceptor now in use by Aegis BMD ships, the Standard SM-3 IB missile, has been deployed since 2014. It has a range of more than 700 km (380 miles), and it can intercept targets outside the atmosphere—making it the only weapon deployed in the Western Pacific capable of intercepting an IRBM in mid-flight.

Its followup, the SM-3 Block IIA, is advertised as having triple that range (2,500 km, or 1,350 miles). Although it could potentially intercept ICBMs, it's still early in its deployment and won't be fully in service until 2018.

SM-3 missiles are "hit-to-kill" interceptors—they have to collide with a ballistic warhead target to destroy it. So far, the IIA is two for three in intercepting live targets. Its last test failed due to operator error—a tactical data link identified the test missile as friendly, and a confused sailor hit the self-destruct button on the shot. But the Aegis system overall has a much longer record of success than the other major ICBM interceptor system in the US' inventory, the Ground-based Midcourse Defense Interceptor—which had its first successful intercept test against an ICBM class target in June (with a handful of other target intercepts).

Both the GMD and Aegis systems have important advantages over the two other ballistic missile defense systems deployed to South Korea, Japan, and Guam: the Terminal High Altitude Air Defense System (THAAD) and the Patriot Advanced Capability 3 (PAC3) upgrade to the Patriot Missile System. First of all, unlike THAAD and PAC3, GMD and Aegis can intercept their targets outside the Earth's atmosphere. That means they can prevent the high-altitude explosion of a nuclear warhead,

and they can prevent the radioactive debris from a destroyed warhead from potentially raining down on everything below.

THAAD and PAC3 are more of a "point-defense" solution aimed at preventing ballistic missile threats from hitting their target areas, and they have much shorter ranges than the SM-3 missile. They're also intended primarily to defend against medium-range and short-range ballistic missiles, not the higher and faster flying IRBMs and ICBMs.

Aegis is the system that will most likely be brought to bear against any near-term North Korean missile threat to Japan or Guam. But an actual ICBM launch headed for the US would likely fall to the GMD system. That's because, when facing an ICBM launch profile, Aegis BMD ships with the current interceptors would have to hit the launch in boost phase—before it got too high and started flying too fast for the interceptors to catch. That would mean being dangerously close to the North Korean coast, in all likelihood. And if North Korea was really lighting things off, that would leave the country vulnerable to coastal missiles and submarine attacks.

Strange game

On the off chance that North Korea does launch an ICBM toward the US mainland any time soon—just one—there is a high likelihood that it could be shot down by the GMD system as it stands now, from sites in Alaska and California. The US and Japan might also be able to defend with Aegis systems against medium- and intermediate-range attacks on Japan and Guam. The probable success rate of such a defense begins to drop depending on how many missiles North Korea could successfully launch in a first wave.

The situation for South Korea (and much of Japan) is much more precarious because of the number of short and medium-range missiles North Korea is believed to have. Though there are probably under 150 medium and intermediate range missile launchers deployed by North Korea, and far fewer nuclear warheads—and there are significant doubts about the accuracy of any current North Korean missile system—launching everything in one wave at South Korea and Japan could potentially overwhelm defenses, and defenders would have to deal with the fact that some could be conventional missiles or simply decoys intended to eat up defensive assets.

If North Korea does launch an IRBM or ICBM with a thermonuclear warhead to do a demonstration explosion, akin to the US "Frigate Bird" test—a May 6, 1962 test using a live sub-launched Polaris missile detonated over the Johnston Atoll, the only known nuclear test using an actual ballistic missile—it's likely there will be little warning that such a test is taking place, though its timing may be tied to some North Korean anniversary observation or an event. But there are significant risks involved for both sides for this sort of test, which would be the first atmospheric nuclear test since China detonated a bomb in 1980.

North Korea has yet to demonstrate any sort of accuracy in targeting longer-range ballistic weapons, and a launch failure could result in the scattering of plutonium near and downwind of the launch site. If "successful," there could be a range of primary and secondary effects, depending on how high it is detonated, ranging from damage to satellites, terrestrial communications, and electrical systems from the electromagnetic pulse generated by a blast to fallout created from lower-altitude detonations touching the ocean.

If the US or Japan shoot down the missile, there are additional risks—if the warhead is not destroyed outside the atmosphere, a wide scattering of plutonium might float down in the atmosphere over great distances. And if the US and Japan tried and failed to shoot the missile down, such an embarrassment would throw doubt on the ability of the nations' governments to defend against an actual attack.

<https://arstechnica.com/information-technology/2017/09/as-n-korea-threatens-nuclear-missile-test-are-us-ballistic-defenses-ready/>

[Return to top](#)

The Warzone (Tampa, MD)

This Obscure DC-Area Office Helps US Special Operators Hunt Down And Secure Loose WMDs

By Joseph Trevithick

September 21, 2017

The fusion center coordinates US military efforts to make sure the deadly weapons don't end up in the wrong hands.

As part of its new job as the lead U.S. military organization managing responses to possible crises involving weapons of mass destruction, the Pentagon's top special operations headquarters is running a dedicated office to gather intelligence and information about these potential threats. Since President George W. Bush's administration made the case for its invasion of Iraq, "WMDs" has become something of a dirty word, but that doesn't mean there aren't real concerns about hostile foreign powers and other groups getting hold such arms, including nuclear, radiological, chemical, and biological weapons.

There's a certain alphabet soup to the arrangement, with U.S. Special Operations Command's (SOCOM) Counter-Weapons of Mass Destruction-Fusion Center (CWMD-FC) being situated somewhere in the greater Washington, D.C. area, known to the U.S. military as the National Capital Region (NCR), which is already home to another secretive special operations counter-terrorism element, sometimes referred to as SOCOM-NCR. The mission of "countering" these deadly weapons can be somewhat confusing, as well.

The fusion center's job is to provide "a persistent focus on the weapons of mass destruction problem set," Ken McGraw, a spokesman for SOCOM, explained in an Email. An extension of the work the command does at its headquarters in Tampa, Florida, the personnel actively work with their counterparts across the rest of the U.S. military, the Intelligence Community, and law enforcement agencies, among others, as well as foreign governments, he added.

From this description, the fusion center's role sounds utterly banal. But coordinating the Pentagon's strategy to combat the spread of weapons of mass destruction, which is essentially equal arms control and direct action, is a complicated and multi-faceted mission.

Preventing countries or other hostile actors from acquiring or transferring WMDs involves monitoring the movement and flow of weapons, precursor materials, and funding, helping to secure and destroy these items when necessary, and making sure foreign governments abide by various international agreements, such as the Non-Proliferation Treaty. At the same time, SOCOM has to take the lead if the U.S. military ends up responding to related crises as diverse as a weapon accidentally going off at home or abroad or there is a need to neutralize a hostile WMD capability.

It's an amazingly complex set of problems and that's part of the reason why President Barack Obama's administration, as one of its final official acts, shifted the job from U.S. Strategic Command (STRATCOM) to SOCOM in December 2016. Critics were concerned that STRATCOM, which manages America's nuclear deterrent, strategic intelligence, and military space activities, was either unwilling or unable to give countering WMDs the attention it deserved.

STRATCOM “rarely invested the necessary political and intellectual capital,” one anonymous U.S. defense official told The Washington Post when it first reported on the shift in December 2016. As a whole, they said the U.S. military gave WMD threats an “overall low sense of priority as compared to its other missions.”

An additional factor was the difficulty in coordinating the activities of a myriad number of U.S. military elements charged with the mission, but not necessarily working directly together. These include the U.S. Army’s 20th Support Command and 21st Ordnance Company, the latter dedicated specifically to defusing WMDs, and the U.S. Marine Corps Chemical Biological Incident Response Force, among others.

There is also the Defense Threat Reduction Agency (DTRA), a separate agency with the Department of Defense focused on responding to WMD threats. Many of these units and offices have individual agreements with other U.S. government agencies to better mesh their respective activities, too. According to a Memorandum of Understanding The War Zone obtained via the Freedom of Information Act, U.S. Special Operations Command North, which oversees special operations missions in North America, has had a contract expert working within the Federal Bureau of Investigation’s Weapons of Mass Destruction Directorate since 2015.

In part, SOCOM’s fusion center has the job of making sure these various parties are working together smoothly. With U.S. special operations forces themselves heavily committed, with some suggesting they are close to their breaking point organizationally under the strain of near constant operations, it’s possible that SOCOM could find struggling with many of the same problems.

The command does have a long-standing relationship with the counter-WMD mission itself, though. One of the “core activities” of U.S. special operations forces is supporting U.S. government efforts to stem the proliferation of WMDs, according to SOCOM’s website.

According to Sean Naylor’s *Relentless Strike*, the secretive Joint Special Operations Command (JSOC) spent much the 1990s preparing to respond to a “loose nuke” or similar scenario. This is not particularly surprising, given the increased fear after the fall of the Soviet Union in 1991 that Russia or other former Soviet republics had limited control of their stockpiles of nuclear weapons and material.

While we don’t know how much time JSOC continues to devote to this mission, we do know the U.S. military still practices for these types of contingencies. In 2015, American personnel reportedly stopped a mock nuclear or radiological attack in Canada as part of an annual counter-terrorism exercise called Vital Archer.

And while the idea that Saddam Hussein had an active set of WMD development programs in 2003 turned out to be bogus, there have been a host of very real world examples of these potential dangers since then. Most notably, in 2013, the U.S. military participated in a failed international effort to destroy the Syrian government’s chemical weapon stockpiles and production capability. DTRA worked with the U.S. Army to develop and provide a mobile system to destroy the dangerous arms on board the M/V Cape Ray, a ship from the U.S. government’s Ready Reserve Force, which keeps various ships storage until just such a need arises.

In addition to the Syrian regime of dictator Bashar Al Assad, ISIS has employed chemical weapons in Iraq and Syria. It is very possible that American special operators have already worked with local forces in both countries to identify and manage chemical weapons and hazardous materials as they’ve pushed back the terrorist organization.

In 2011, American troops had also deployed to Libya to guard that country’s chemical arsenal after the dramatic fall of long-time dictator Muammar Gaddafi, a mission known as Operation Odyssey Guard. In February 2014, the U.S. government announced it had finished safely destroying the

remaining weapons and associated materials, preventing them from falling into the hands of terrorists or other militants.

There is evidence that these organizations continue to be interested in radiological weapons, more commonly known as “dirty bombs,” as well, even though many experts suggest the biggest danger they pose is from panic. Just in August 2017, Indonesia authorities told Reuters that the country’s security forces had broken up a terror cell that was trying to make one of these devices. ISIS terrorists almost stumbled upon a potential source of radioactive material during their occupation of the city of Mosul in Iraq.

Regardless of whether or not these plans would work, it still makes sense to tightly control radioactive material as part of the counter-WMD mission. In August 2015, a U.S. Air Force C-17 cargo plane quietly arrived at an undisclosed airport in Mexico to load up three irradiators, which the country had previously used to eliminate agricultural pests, full of cesium-137 and spirited them away to a secure disposal site in the United States.

There are an increasing number of much larger potential threats, as well. Any talk of military action against North Korea, no matter how remote, has to include a discussion of what to do about that country’s growing nuclear arsenal, as well as its existing stockpile of chemical weapons. So, it’s very likely that SOCOM’s D.C.-area fusion center has been part of the inter-agency work in response to the ever growing tensions with North Korea, especially after its sixth nuclear weapons test.

In addition, the office no doubt at least followed the reported Israeli air strike on Syria’s Scientific Studies and Researchers Center, which leads that country’s chemical weapon development work and has probably talked with DTRA about its operation to make sure WMD materials don’t slip across the border from Syria into Jordan, the same country where JSOC has reportedly situated some portion of its effort to target and eliminate ISIS leaders, known as Operation Gallant Phoenix.

The center could be contributing information about Iran’s compliance with the international agreement about its controversial nuclear program, formally known as the Joint Comprehensive Plan of Action (JCPOA). On Sept. 19, 2017, President Donald Trump called the Iran Deal “an embarrassment to the United States.”

However, “the facts are that Iran is operating under the agreements the we signed up for under the JCPOA,” U.S. Air Force General John Hyten, head of STRATCOM, told a gathering at the Hudson Institute event on Sept. 20, 2017. “But at the same time they are rapidly, rapidly deploying and developing a whole series of ballistic missiles and testing ballistic missiles at all ranges that provide significant concerns to not just the United States, but our allies.”

And there’s always the possibility of a completely naturally occurring WMD emergency, whether it be serious damage to a nuclear power plant from a natural disaster, as happened to the Fukushima Daiichi plant in Japan after an earthquake and subsequent tsunami in 2011, or an outbreak of deadly disease such as the Ebola outbreak that turned into a regional pandemic in West Africa in 2014. Both incidents resulted in massive U.S. government responses that involved American military personnel.

All in all, WMD-related security concerns seem to have been expanding rather than receding in the past few years. It’s now SOCOM’s job to lead the U.S. military’s numerous efforts to counter that trend and Counter-Weapons of Mass Destruction-Fusion Center looks set to be an important part of staying on top of the issues.

<http://www.thedrive.com/the-war-zone/14535/this-obscure-dc-area-office-helps-us-special-operators-hunt-down-and-secure-loose-wmds>

[Return to top](#)

US ARMS CONTROL

US News & World Report (New York, NY)

Despite Tensions, U.S. Sees Value in New START Treaty With Russia

By Phil Stuart

September 22, 2017

The United States sees value in the New START arms control treaty with Russia, despite Washington's concerns about Moscow's track record on arms control and other issues, senior U.S. officials said on Friday.

The remarks by the Trump administration officials, speaking to reporters on condition of anonymity, suggest the treaty will remain in force and the door remains open to pursuing an extension of the accord, which is set to expire in 2021.

The New Strategic Arms Reduction Treaty gives both countries until February 2018 to reduce their deployed strategic nuclear warheads to no more than 1,550, the lowest level in decades. It also limits deployed land- and submarine-based missiles and nuclear-capable bombers.

Reuters has reported that President Donald Trump, in his first call with Russian President Vladimir Putin, criticized the New START treaty, saying it favored Moscow.

But one of the Trump administration officials said on Friday the United States was not looking to discard New START.

Senior U.S. officials, including U.S. Defense Secretary Jim Mattis, have questioned Russia's reliability on arms control, citing longstanding U.S. allegations that Russia has violated the Cold War-era Intermediate-range Nuclear Forces (INF) Treaty.

Russia denies treaty violations and accuses the United States of them.

The accusations come amid a nosedive in U.S.-Russian relations.

U.S. intelligence agencies accuse Russia of meddling in the U.S. presidential election, which Moscow denies, and recent tit-for-tat exchanges between Washington and Moscow include moves to slash each others' diplomatic presence.

The tensions have reached Syria, where the United States and Russia are backing different forces that are scrambling to claim what is left of Islamic State-held territory.

Russia warned the United States on Thursday it would target U.S.-backed militias in Syria if Russian troops again came under fire.

Still, a second senior Trump administration official said Friday the United States was seeking ways to improve communication with Moscow and build some degree of trust, which the official described as non-existent.

Trump took office saying he wanted to improve ties strained since Moscow's 2014 annexation of Crimea and the separatist conflict in eastern Ukraine, which led Washington to impose sanctions on Russia.

Ukraine's Petro Poroshenko met Trump on Thursday and said afterward that they had a shared vision of a "new level" of defense cooperation.

But the second senior Trump administration official said there had been no decision on whether to provide defensive arms to Ukraine, something Kiev has long wanted.

<https://www.usnews.com/news/world/articles/2017-09-22/despite-tensions-us-sees-value-in-new-start-treaty-with-russia>

[Return to top](#)

Reuters (New York, NY)

Russia to Retaliate Against U.S. In Military Observation Flights Row: Agencies

Author Not Attributed

September 27, 2017

Russia will retaliate against the United States in a row over a treaty that allows both states to conduct military observation flights over each other's territory, Russia's deputy foreign minister said, Russian news agencies reported on Wednesday.

In the latest sign of escalating tensions between the two countries, the United States has accused Russia of flouting the so-called Open Skies Treaty, an agreement designed to build confidence between the two countries' militaries, and said it plans to take measures against Moscow.

The Wall Street Journal newspaper reported on Tuesday that would include restricting Russian military flights over American territory in response to what it said was Moscow preventing U.S. observation flights over its heavily militarized Baltic exclave of Kaliningrad.

Russian news agencies cited Russian Deputy Foreign Minister Sergei Ryabkov on Wednesday as saying that Moscow was itself unhappy about Washington's compliance with the same treaty and would take its own measures against the United States in response to any new U.S. restrictions.

"I have no doubt there will be a (Russian) response," agencies cited Ryabkov as telling reporters.

"But before announcing something on this, we have to analyze the situation with our military and look at how we'll respond to the Americans."

Ryabkov was quoted as describing Washington's approach to the disagreement as one-sided and as saying Russia would not yield to U.S. pressure for it to make concessions.

U.S. Marine General Joseph Dunford, chairman of the military's Joint Chiefs of Staff, told a Senate Armed Services Committee on Tuesday that Washington believed it would be best if the Open Skies Treaty with Russia continued, but that it should not be in place if Moscow was flouting it.

<http://www.reuters.com/article/us-northkorea-missiles-southkorea/south-korea-expects-more-provocative-acts-by-north-korea-in-mid-october-idUSKCN1C3073>

[Return to top](#)

Middle East Online (London, UK)

Russia accuses US of missile treaty breach

By Andrew Osborne

September 22, 2017

Russian FM rebukes US President's comments questioning Iran nuclear deal, in another sign of disagreement between two countries.

Russia is "extremely concerned" by US President Donald Trump's comments questioning the Iran nuclear deal and suspects that Washington itself may have violated a landmark arms control treaty, Foreign Minister Sergei Lavrov said.

Lavrov's comments, made to Russian reporters at the United Nations in New York and published by his ministry on Wednesday, illustrate how deeply Moscow and Washington are at odds over an array of issues and suggest any attempts to improve already battered relations face an uphill struggle.

Addressing the United Nations General Assembly on Tuesday, Trump said Iran's 2015 pact with six world powers to curb its nuclear programme in return for loosening economic sanctions was "an embarrassment to the United States". Washington could not abide by an agreement "if it provides cover for the eventual construction of a nuclear programme," Trump said.

Lavrov, whose country is a signatory to the deal, said Russia strongly disagreed with that stance.

"It's extremely worrying," he said. "We will defend this document, this consensus, which was met with relief by the entire international community and genuinely strengthened both regional and international security."

Trump's threat in the same UN appearance to "totally destroy" North Korea if it had to defend itself or its allies also went down badly with Russia, which shares a border with North Korea and believes negotiations and diplomacy are the only way to resolve a crisis over Pyongyang's missile programme.

"If you simply condemn and threaten, then we're going to antagonise countries over whom we want to exert influence," said Lavrov, referring to Trump's comments.

He saved some of his harshest criticism however for what he said was a possible violation by the United States of a landmark 1987 arms control treaty which bans Russian and American intermediate-range missiles on land.

A senior Trump administration official accused Russia earlier this year of violating the same pact -- the Intermediate-range Nuclear Forces (INF) treaty -- something Moscow denied.

But Lavrov said it looked like it was Washington, which is in the midst of a \$1 trillion, 30-year modernization of its aging ballistic missile submarines, bombers and land-based missiles, that was in breach of the same treaty.

"We have suspicions on at least three fronts that the Americans are creating weapons systems which violate or could violate the treaty obligations," said Lavrov, who said Moscow had relayed its concerns to the United States.

Lavrov has met US Secretary of State Rex Tillerson twice in New York this week.

<http://middle-east-online.com/english/?id=84960>

[Return to top](#)

Mehr News Agency (Tehran, Iran)

US invites world to nuclear weapons race

Author Not Attributed

September 27, 2017

Iran's Foreign Deputy Minister Abbas Araghchi stated that the world will no longer tolerate the lack of commitment to nuclear-armed countries, adding the US is inviting the world to a nuclear weapons race.

Araghchi made the remarks on Tuesday while addressing the United Nations General Assembly on the International Day for the Total Elimination of Nuclear Weapons.

While criticizing nuclear-armed countries for neglecting commitments to eliminating their nuclear weapons, Abbas Araghchi said "some measures were taken in the past to prevent nuclear race among some states, however, US recent act to ensure that its nuclear weapons arsenal is stronger than others, is a clear invitation to instigate a new round of nuclear arms races.

He went on to add that nuclear-armed countries have been jeopardizing the Non-Proliferation Treaty by continued violations over the past almost 50 years.

He also questioned nuclear-armed countries' plans to upgrade their weapons; the move that marks the beginning of a new round of nuclear weapons modernization, he said.

The deputy minister went on to say that such measures are worrisome and can increase tensions and threaten international security.

The Treaty on the Prohibition of Nuclear Weapons, signed this year in the UN, demonstrates that other countries won't accept prolongation of such operations, Araghchi noted.

Araghchi added that JCPOA signifies a historic success for diplomacy and noted "as certified by eight IAEA reports, Iran has complied with its commitments within the past two years."

Referring to the international community's support for JCPOA, he called for the adherence of all signatories to their commitments to the nuclear deal.

<http://en.mehrnews.com/news/128194/US-invites-world-to-nuclear-weapons-race>

[Return to top](#)

ASIA-PACIFIC

NBC News (New York, NY)

North Korea Also Has Nerve Agent VX, Chemical Weapons Expert Warns

By Nick Bailey and Michele Neubert

September 24, 2017

Amid a flurry of missile tests and inflammatory rhetoric, the world's attention is focused on North Korea's nuclear program.

But one expert believes the rogue state's stockpile of chemical weapons could also bring catastrophic consequences.

The Center for Nonproliferation Studies estimates North Korea has between 2,500 and 5,000 metric tons of chemical weapons.

In particular, it has a large supply of VX, the deadliest nerve agent ever created; last year it was used to assassinate Kim Jong Un's half-brother, Kim Jong Nam, at Kuala Lumpur airport.

The chemical stockpile could harm thousands of people if it were attached to a missile or if it ended up in the hands of Islamist extremists, according to Hamish de Bretton-Gordon, former commanding officer of the U.K. Chemical, Biological, Radiological and Nuclear Regiment (CBRN) and NATO's Rapid Reaction CBRN Battalion.

"The chance that North Korea might provide jihadis with some of their chemical or nuclear capability is a huge concern at the moment," he said. "What some people forget ... is that in 2006 North Korea helped [Syrian President Bashar al-] Assad and his regime set up their own nuclear program which was destroyed by the Israelis. But only as recently as a few weeks ago, the Organization for the Prohibition of Chemical Weapons intercepted two North Korean ships heading towards northern Syria with equipment to make chemical weapons."

De Bretton-Gordon has described VX as "the most toxic chemical weapon ever produced," highlighting that even a "microscopic amount" can prove deadly. VX also featured in the 1996 action thriller "The Rock."

It's banned under several international conventions and was designated a weapon of mass destruction by a U.N. resolution in April 1991. Its origins date back to the early 1950s, when a British scientist named Ranajit Ghosh was researching pesticides and developed the "V-series" of nerve agents — the V stood for "venom."

De Bretton-Gordon, who now works for military supplier Avon, fears impoverished Pyongyang could be more tempted to sell its chemical stockpile as it grapples with toughening global sanctions.

"We know that the jihadis have a lot of money and only last year tried to buy a highly enriched uranium from Russian criminals for \$40 million a kilogram," he said. "So, would Kim Jong Un sell deadly VX for \$40 million a kilogram? I think absolutely they would the more that they get pushed."

However, Professor Hazel Smith at London's School of Oriental and African Studies (SOAS) says that would be a major change in policy for the North Korean regime.

"Historically North Korea values state sovereignty and doesn't value interactions with non-state entities such as ISIS and al Qaeda," she said. "Given the level of surveillance over their shipping activities it's also unlikely they would be able to, or try to transport weapons."

She says the regime would be more concerned right now with protecting its oil imports, which are still flowing despite economic sanctions.

There also fears that North Korea could put VX to use itself. Japanese Prime Minister Shinzo Abe has warned of that possibility, and Pyongyang's recent successful missile launch tests and nuclear tests have heightened the likelihood of chemical warfare in any conflict on the Korean peninsula.

"I think we now know that they have 5,000 tons of VX," de Bretton-Gordon said, speaking to NBC News at the Defence and Security Equipment International conference in London. "We know they have missiles capable of firing 4,000 to 6,000 miles, probably with a payload of half a ton, so half a ton of VX in those missiles could kill tens of thousands of people, and they could do that now, so that is a genuine concern."

He added: "We are focusing on the nuclear ... but whatever military option there is [for dealing with] North Korea, it must include mitigating and destroying that very large stock of VX that we know of."

But Smith says chemical weaponry doesn't form part of the regime's strategic plans.

"Were there to be an escalation of the current crisis, there would next be the use of conventional weapons. [North Korea] would not need chemical weapons for an attack on Seoul [and] if it did ... it would invite a wholesale global response to any military conflict between North and South Korea."

North Korea has said in public statements that it wants an official end to the Korean War, which was halted by a 1953 armistice but not ended by peace treaty. It also wants nothing short of full normalization of relations with the U.S. and to be treated with respect and as an equal in the global arena.

<https://www.nbcnews.com/news/north-korea/north-korea-also-has-nerve-agent-vx-chemical-weapons-expert-n802231>

[Return to top](#)

Arms Control Wonk (Washington, DC)

Domestic UDMH Production In The DPRK

By Jeffrey Lewis

September 27, 2017

There has been debate recently about whether North Korea is capable of producing UDMH, the fuel in the propellant combination used by its new generation of long-range ballistic missiles like the Hwasong-12 and Hwasong-14. The United States intelligence community, which does not usually comment on intelligence matters, has stated that "based on North Korea's demonstrated science and technological capabilities — coupled with the priority Pyongyang places on missile programs — North Korea probably is capable of producing UDMH domestically."

It is easy to understand this assessment. In North Korea, the domestic production of nuclear weapons—including the missiles to deliver them—is considered to have the same importance as the development of the national economy as a whole. The North Korean military fielded its first UDMH-fueled missile, the Musudan, about a decade ago.

UDMH is currently produced by a number of countries around the world, and has been for many decades. The Soviet Union began to mass produce UDMH in 1959. China was producing UDMH by

the 1960s. Japan was producing UDMH by the early 1970s. And by the early 1980s, India had produced UDMH at the Andhra Sugars Tunuku factory.

Far from being a secret, the “formula” for UDMH is literally its name: unsymmetrical di-methylhydrazine or $\text{H}_2\text{NN}(\text{CH}_3)_2$. UDMH can be produced by several well-documented processes, including the Olin-Raschig process which was patented by German chemist Friedrich Raschig in 1906 and optimized for commercial production by the Olin Corporation in the United States. UDMH is produced using a variation of this process with dimethylamine substituted for ammonia in the reaction with chlorine.

North Korea is hardly so backwards that UDMH production would come as a surprise. Over the years, a variety of liquid and solid rocket propellants have been found in seized cargoes from North Korea. North Korea has a large chemical industry, much of which is concentrated in the around Hamhung and Hungnam. Published accounts by North Korean defectors suggested that many chemicals for defense uses, which would include rocket propellants, are produced in this area. We’ve annotated a satellite image provided by our friends at Planet so you can see just how many interesting things are happening in the Hamhung/Hungnam area.

But it is in North Korea’s scientific publications where we find the best evidence of domestic UDMH production. A cursory look at North Korea’s scientific publications, available through databases like NKTech.net, shows that North Korea is engaged in domestic production of UDMH. Here are three papers we found:

- Kim Ryong Soh, Hong Jeong Hyun, “The Oxidation Process of 1,1-dimethylhydrazine,” *Chemistry and Chemical Engineering*, 2013, 2013, no.2, pp.38-40
- Kim Ryong Soh, Hong Jeong Hyun, “1,1-dimethylhydrazine-H₂O Oxidation,” *Chemistry and Chemical Engineering*, 2015, no.1, pp.41-42
- Cha Seok Bong, Kim Yeong No, “A Study on Measuring the Electroconductivity of Unsymmetrical Methyl Hydrazine-water solution,” *Chemistry and Chemical Engineering*, 2016, no.3, pp.41-42.

These three papers describe North Korea’s production of UDMH in some detail, including the specific process used by North Korea (Raschig). Translated abstracts are available at the bottom of this post.

The first two papers concern the treatment of wastewater that results from the UDMH production process — which is a real issue as UDMH is toxic. One of India’s aerospace engineers tells a story about a bull that found its way into a wastewater disposal pit from UDMH production. The workers at the plant “smelt a peculiar ‘non-UDMH’ smell,” eventually tracking it to the dead bull in the disposal pit. These papers are direct evidence of domestic UDMH production, since the wastewater is a byproduct of the production process. Moreover, rather than a press release touting an achievement, which might be dismissed as propaganda, these papers offer a rather mundane discussion of the problems emerging from the specific process to produce UDMH.

The third paper concerns the electrical conductivity of a UDMH-water solution and seems less revealing, at first. It concerns the electrical conductivity of a UDMH-water solution. Electrical conductivity varies by the amount of water in the solution, meaning that a measurement of conductivity can tell one how “wet” the UDMH is. This can be used to assay the quality of the fuel.

These three papers indicate that North Korea is producing UDMH, dealing with the both the wastewater from production and assaying the content of a UDMH-water solution. It is hardly surprising that the DPRK is able to do so, given both the scope of the DPRK chemical industry and the fact that UDMH is produced around the world using well known processes.

The third paper, however, yields an additional secret – the probable location of the UDMH production line. None of the authors on any of the three papers is listed with an affiliation, which is not unusual. In any case, we may also presume that the location of UDMH production is a state secret, relating as it does to the production of fuel for North Korea’s nuclear armed missiles. But one of the authors – Cha Seok Bong – has both an uncommon name and holds patents on other chemical processes. Those patents provide Cha’s institutional affiliation as the February 8 Vinalon Complex in Hungnam.

Of all the facilities in the area, the February 8 Vinalon Complex is the most likely to be involved in the production of UDMH. While North Korean propaganda emphasizes the plant’s role in producing vinalon – a synthetic fiber that North Korea uses extensively to illustrate its self-reliance – the United States intelligence community has long assessed the site, also known as the Hungnam Chemical Plant Pongung, as producing a number of chemicals. According to a partially declassified 1969 imagery interpretation report prepared by the CIA, the facility contained a production line to handle chlorine and ammonia, chemicals that are also used in the Olin-Raschig Process to manufacture hydrazines. It is an obvious candidate for adding a UDMH production line at a later date.

Unfortunately, UDMH production does not have obvious signatures for an analyst using overhead images. Yet, we do see a number of wastewater ponds at the site. Recent construction in different sections of the plant may also correlate with the expansion of UDMH production. But it is Cha, an employee publishing research related to UDMH production, who provides the basis for our conclusion that this plant is at least one of the locations among which North Korea domestically produces UDMH to fuel its new generation of long-range missiles.

<http://www.armscontrolwonk.com/archive/1204170/domestic-udmh-production-in-the-dprk/>

[Return to top](#)

Stars and Stripes (Washington, DC)

North Korea’s nuclear weapons are deterring US first strike, Russian official says

By Elena Mazneva

September 25, 2017

North Korea’s possession of nuclear weapons is preventing the U.S. from launching a first strike against the rogue nation, Russian Foreign Minister Sergei Lavrov said Sunday.

“The Americans won’t strike because they know for sure — rather than suspect — that it has atomic bombs,” Lavrov said on Russia’s NTV television. “I’m not defending North Korea right now, I’m just saying that almost everyone agrees with this analysis.”

Lavrov said the U.S. attacked Iraq “solely because they had 100 percent information that there were no weapons of mass destruction left there,” rejecting arguments the American government made at the time.

Tensions between the U.S. and North Korea increased this weekend as President Donald Trump and North Korea Foreign Minister Ri Yong Ho traded threats. On Saturday, U.S. Air Force B-1B bombers flew over international waters east of North Korea.

Lavrov said thousands of innocent people will suffer, in North Korea and in bordering South Korea, Japan and even maybe China and Russia, in the absence of a diplomatic solution.

<https://www.stripes.com/news/europe/north-korea-s-nuclear-weapons-are-deterring-us-first-strike-russian-official-says-1.489414#.WcyJItOGPVo>

[Return to top](#)

The Diplomat (Tokyo, Japan)

Could North Korea's Example Inspire Iran and Pakistan?

By Akhilesh Pillalamarri

September 21, 2017

Is missile defense the way out for the United States?

As North Korea's continued missile launches demonstrate, a country with an advanced missile program in tandem with a nuclear capability can operate at a high level of impunity in defiance of the international community, global sanctions notwithstanding.

What North Korea seems to have discovered, based on lessons from places such as Libya and Iraq, is that the best leverage any state could have against regime change, or international pressure aimed at changing regime behavior, is the possession of nuclear weapons combined with a delivery system that allows such weapons to be deployed against the United States and other Western states. As Dan Coats, President Donald Trump's director of national intelligence, said:

[Kim Jong-un] has watched, I think, what has happened around the world relative to nations that possess nuclear capabilities and the leverage they have and seen that having the nuclear card in your pocket results in a lot of deterrence capability.....The lessons that we learned out of Libya giving up its nukes...is, unfortunately: If you had nukes, never give them up. If you don't have them, get them.

Could North Korea's example form the template of future actions by Iran and Pakistan? Both states are now under renewed pressure by the United States, and may thus deem it in their interests to acquire a deterrent against the United States. There is indication that U.S. President Donald J. Trump has been looking for a way to withdraw from the Iran nuclear deal for a while, a deal he has repeatedly denounced as "one of the worst and most one-sided transactions the United States has ever entered into."

Trump recently accused Iran of hiding behind a "false guise of a democracy," and said on Tuesday that "it is far past time for the nations of the world to confront another reckless regime, one that speaks openly of mass murder, vowing 'death to America,' destruction to Israel, and ruin to many nations and leaders...."

As Ted Galen Carpenter points out in *The National Interest*, such rhetoric could push Iran toward the very scenario the nuclear deal has been seeking to avoid; that is, Iran could go nuclear: "If Pyongyang causes the United States to back down, the reasoning goes, Iran will actively pursue the same ambition, regardless of any agreement to the contrary." Iranian President Hassan Rouhani indicated that if the United States withdrew from the nuclear deal, Iran could reactivate its nuclear activities: "One of the options and choices were one of our counterparts not to remain in the current framework would be to go back to previous activities... This is one option. And that's not difficult. We can easily go back to previous conditions if counterparts were to not live up to their commitments."

Pakistan, too, has reason to pursue enhanced nuclear and missile capabilities, though the United States would be more justified in putting pressure on Pakistan, given its record of playing a double-

game against American interests in South Asia. Lately, it appears as though Pakistan is at risk of gradually becoming more and more isolated, internationally. The United States is “considering stripping Pakistan of its status as an ally because of a perceived failure to tackle terrorism,” according to reports. Additionally, the United States could designate Pakistan a state sponsor of terror, and conduct unilateral drone strikes on Pakistani territory. All of this could serve to gradually antagonize Pakistan, which has already threatened to retaliate in minor ways, and drive it toward pursuing ICBM range-missiles to complement its nuclear arsenal, just in case; the country moved toward establishing a credible nuclear triad earlier this year.

Although the foreign policy of the United States is partially responsible for North Korea’s rogue actions, and potential future nuclear blackmail from Iran and Pakistan, the United States should nonetheless take active measures toward protecting itself from a nuclear attack from these states. The United States cannot wait for the right alignment of politics, sanctions, diplomacy, and geopolitical alignments to at least take active measures toward negating threats from Iran, Pakistan, and North Korea. While some policy-figures in the United States, such as John Bolton, call for a military option against North Korea; such an option would likely be so costly as to be almost unacceptable, as The Diplomat’s Senior Editor Ankit Panda has argued in The Atlantic.

Instead, it would be both more effective, and economic, in terms of blood and treasure, for the United States to further invest in effective missile defense, in order to neuter any attempt at nuclear blackmail emanating from states that would threaten the American homeland. The purpose of this should not only be to protect the U.S. homeland from an attack, but to decrease the likelihood of other states using their nuclear weapons as shields behind which to hide. For example, terrorist groups based in Pakistan are generally seen as safe from massive retaliation from India, should they be implicated in a terrorist attack there, as Pakistan has made it clear that a conventional attack on it could be met with a nuclear response.

Investing further in missile defense would go a long way toward preventing the United States from being susceptible to such a scenario, should it arise. As a report by CSIS indicates, investing in missile defense against new threats is the best solution against missile threats from North Korea, Iran, and potentially Pakistan, should diplomatic solutions not be found. A successful missile defense strategy requires more investment and modernization, such as the expansion of the United States’ ground-based midcourse defense (GMD), developed specifically to combat against potential threats from North Korea and Iran.

The GMD system currently allows the United States to destroy missile threats in space. The United States should also consider adding a space-based interceptor layer, an option that has been explored by both lawmakers and the Pentagon. Finally, the United States should also place GMD missile batteries on its east coast, in addition to those on the west coast, which already has several dozen interceptors at a GMD battery that covers Alaska, Hawaii, and the west coast. Missile defense on the east coast would better combat threats from the Middle East in particular, in addition to North Korean provocations against major eastern cities. All of these measures would allow the United States to shore up its missile defense and make it more robust.

While the United States should do its utmost to implement policies that conciliate rather than antagonise states in Asia and the Middle East, it should also take precautions if these states decide to embark on the route of blackmail. Investing American money in ways to defend the United States against missile threats is a far wiser strategy than John Bolton’s strategy of starting a war with a nuclear armed power.

<http://thediplomat.com/2017/09/could-north-koreas-example-inspire-iran-and-pakistan/>

[Return to top](#)

EUROPE/RUSSIA

USNI News (Annapolis, MD)

Report: Russia Continues to Use Nuclear Threats to Intimidate Neighbors

By John Grady

September 26, 2017

Nuclear escalation — tactical and strategic — is something Russians can use to cow their neighbors to get their way is real, but what may happen after using those weapons remains a deterrent to putting that doctrine into play, the co-author of a new report on Washington-Moscow conflict told USNI News last week.

While the fundamental strategic balance between the two countries remains in place, there have been changes over the years in how each views the others and what either will do to protect itself, Richard Fontaine, president of the Center for New American Security, said Friday.

For example, Moscow's placement of cruise missiles close to its western borders does violate the Intermediate Range Nuclear Forces Treaty, Fontaine said. The Russians claim that the placement of Aegis Ashore in Poland and Romania to deter missile attacks from Iran on NATO countries likewise broke the 1987 agreement.

As the nuclear relationship stands now between the United States and Russia, Fontaine does not see a push to build a large missile defense system to counter Russian missiles. Aegis Ashore systems already in place and planned in the near future are stated to meet threats from North Korea and Iran.

The danger of a nuclear confrontation between the United States and Russia, "remains, thankfully, very low."

Nevertheless, time to react to a ballistic missile carrying a nuclear or conventional weapon remains a constraint, and could force leaders into a decision "to use or lose," the report notes. Fontaine said CNAS plans a follow-on report dealing with the issues involving conventionally armed missiles.

Political leaders in Washington, Moscow and Beijing still focus on mutual assured destruction when it comes to thinking about deterring a ballistic missile barrage from the United States, Russia or China.

The future Columbia-class ballistic missile submarines appear to be the most survivable deterrent in the nation's nuclear arsenal into the future, Fontaine said. It is part of a "needle in the haystack" defense, the report says. The Russian approach in that area is to place ICBMs on mobile launchers.

When asked about unmanned autonomous airborne or underwater systems changing the nuclear equation, which both countries are investing in, Fontaine said it was too early to tell.

However, unmanned underwater systems could make "anti-submarine warfare very different" from how it is envisioned today.

The report examines in detail the increasing challenges faced in the cyber and space domains where the greatest future challenges to stability lay.

Splitting Cyber Command from the National Security Agency makes sense "because the missions are fundamentally different" and they can be "organized to maximum advantage." As a separate entity, Cyber Command "can work with the rest of the military in developing" offensive and

defensive capabilities. At the same time, NSA can work more closely with the private sector on its defenses and learn of its capabilities.

“That would be the upside of the split.”

The idea of a Space Corps, which has surfaced in Congress as a possible sixth uniformed service, “is an intriguing idea.” The idea is beef up security because the United States is so dependent on space assets — global positioning satellites, as one example — not only for military operations but daily life in the view of its Capitol Hill supporters and in the defense establishment. The proposal during this congressional session and pushed by Reps. Mike Rogers (R-Ala.) and Jim Cooper (D-Tenn.) actually resurfaced a recommendation from a commission chaired by Donald Rumsfeld in 2000 before he again served as Defense secretary.

But as is the case with persons with cyber skills, Fontaine said how would the government recruit and retain this force: Would they have different entry points for service, be drawn from businesses such as Space X, possibly serve as a reserve component? “How are you going to do that? What’s the model?”

The military’s push for resiliency in the wake of potential cyber and space attacks — even down to re-teaching compass use in land navigation and reading a sextant at sea — makes sense when satellites “go dark for 24 hours and you have no access to satellite data,” but realistically individuals still depend on this [kind of space] technology” for a range of activities.

<https://news.usni.org/2017/09/26/report-russia-continues-use-nuclear-threats-intimidate-neighbors>

[Return to top](#)

The Jamestown Foundation (Washington, DC)

Russia’s Rubezh Ballistic Missile Disappears off the Radar

By Aleksandr Golts

September 27, 2017

With Russia and the United States increasingly engaged in a new “cold war” of sorts, maintaining nuclear parity has become a vital strategic priority for Moscow. But despite regular reports by Russian military leaders of successes in building and deploying new nuclear-capable ballistic missiles, actual progress on this front faces serious difficulties.

For evidence of this situation, one needs to look no further than developments surrounding the RS-26 Rubezh solid-fueled intercontinental ballistic missile (ICBM). Tests of this missile began in 2011, and by 2015, the authorities announced they had carried out four successful launches. The commander of the Strategic Rocket Forces, General Sergei Karakayev, hastened to declare that serial production of these missiles would start at the beginning of 2016 (Kommersant, March 26, 2015; TASS, April 15, 2015). Experts noted the unusual rush with this rocket. Usually many more test launches are required before starting serial production and deploying a missile on combat duty. But in the case of the RS-26, even before the start of serial production, an unnamed source from the General Staff told the TASS news agency that the first new missiles would be stationed with the 29th Missile Division, near Irkutsk. With deployments looming, Moscow consented to special US inspections at the Votkinsk plant. Under the bilateral New Strategic Arms Limitation Treaty (New START), such a demonstration must necessarily take place before the beginning of mass production (Svpressa.ru, September 23, 2015).

Russian officials have excitedly discussed the extraordinary tactical and technical qualities of the missile. In particular, Russian leaders claimed that through the use of modern materials, the weight of the RS-26 is almost a third less than the weight of the Yars RS-24 missile—80 tons versus 120 tons, respectively. Each RS-26 will reportedly carry four 300-kiloton nuclear warheads. Additionally, the Rubezh ICBM will use extremely efficient fuel. As a result, the RS-26 allegedly boasts a quick and short start—the boost phase is less than five minutes. Russian official sources stated that North Atlantic Treaty Organization (NATO) radars in Europe will have no time to fix the start of the missiles. Additionally, the warheads will be able to repeatedly change direction and altitude, making them difficult to intercept by US ballistic missile defenses. Finally, authorities stressed the ICBM's modern command-and-control systems (Rossiyiskaya Gazeta, March 6, 2016).

Immediately after Russia carried out its first tests, some US experts began to suspect that the RS-26 violates the 1988 Intermediate-Range Nuclear Forces (INF) Treaty, which prohibits Russia and the United States from possessing ground-launched missiles with ranges from 500 to 5,500 kilometers (National Interest, February 11, 2014). Specifically, the RS-26 was twice tested at a distance of about 2000 km—launched from Kapustin Yar (Astrakhan region), targeting a test field at Sary-Shagan (Kazakhstan).

Many Russian experts reject those complaints, however. Even assuming that Moscow could remove one stage and turn the RS-26 into a medium-range missile, this would not give Russia any advantage. By introducing the Rubezh as an ICBM, Russia is forced to count all these missiles toward the limits it has accepted under the START Treaty. But if some portion of these ICBMs are transformed into medium-range missiles—whether for the sake of superiority in the Western or Eastern theaters—the Kremlin would nevertheless be abandoning its attempt to achieve quantitative parity with the US when it comes to true intercontinental strategic delivery vehicles. Since Russia is carrying out strategic deterrence primarily against the US, such a decision would indicate a fundamental change in Moscow's strategic concept. The local superiority of Russia in regional theaters can be easily offset by US superiority in the number of sea- and air-launched cruise missiles. However, some experts, such as former chief of the 4th Research Institute of the Ministry of Defense, the prominent Russian expert Vladimir Dvorkin, believes this would nevertheless be a good trade. If Moscow gives up on trying to maintain quantitative parity in ICBMs, “the Kremlin [could] come to understand that Russia's military security is not related to the quantitative nuclear balance with the United States—a virtual balance would be enough” (Nezavisimoye Voennoye Obozrenie August 16, 2013).

Either way, the serial production of the RS-26 could seriously change the Russian-US balance of power in nuclear forces. However, last year, Russian military leaders unexpectedly stopped talking about the Rubezh. Any mention of the RS-26 has disappeared from all official statements. Notably, General Karakayev said nothing about it last December, during his traditional interview devoted to the Day of the Strategic Rocket Forces (Krasnaya Zvezda, December 16, 2016). Without any explanation, Moscow postponed the demonstration of the new missile to US inspectors from 2015 to 2016. But this exhibition has still not been conducted to date.

Some experts believe that by temporarily suspending the production and deployment of the RS-26, Moscow wants to “close the question” of a possible violation of the INF Treaty. Well-known researcher Pavel Podvig mentioned that under START, as long as one side has not made 20 launches and has not yet begun serial production, the missile has the status of a “prototype” and technically does not “exist” (Russianforces.org, July 18).

However, there is another explanation. Potentially, with limited financial resources, Moscow is unable to disperse sufficient funds to the defense ministry to implement several concurrent nuclear missile projects simultaneously. Difficulties have already been noted regarding the development of

a “heavy” ICBM—the RS-28 Sarmat, capable of carrying up to 16 warheads at a distance of up to 17,000 km. This missile would replace the R-36 Voevoda, which has reached the end of its service life. Today, R-36 missiles are armed with 460 warheads—approximately one-third of Russia’s entire nuclear arsenal. General Karakayev has said that the rocket should be removed from combat duty by 2022. Russian Deputy Defense Minister Yuri Borisov promised the first deliveries of the Sarmat for 2018–2019. But missile tests initially planned for 2016 have been constantly delayed. It is difficult to imagine the authorities will be able to meet the original work schedule on the missile and begin its mass production by next year (Gazeta.ru, July 3, 2017; Krasnaya Zvezda, December 16, 2016).

Prospects for the implementation of another ambitious project—the Barguzin rail-based ballistic missile—are even more uncertain. The Barguzin was originally expected to be produced by 2018. However, in December 2015, a source in the defense industry informed TASS that “due to the difficult financial situation and consequent budget constraints” deploying the Barguzin was postponed until at least 2020. The total cost of the Barguzin is not limited to development and production; more money will also be necessary to build new infrastructure for each missile. It is significant that Deputy Prime Minister Dmitry Rogozin, when answering a question, last summer, about the future of the Sarmat and Barguzin, suddenly announced that they will be built if they are included in the next State Armament Program, which has not yet been adopted (Newsru.com, July 3). Thus, the rigid bureaucratic battle between the Ministry of Finance and the Ministry of Defense continues.

<https://jamestown.org/program/russias-rubezh-ballistic-missile-disappears-off-the-radar/>

[Return to top](#)

Sputnik (Moscow, Russia)

Ryabkov: US Provided No Proof of Russia's Alleged INF Treaty Violations

Author Not Attributed

September 25, 2017

Russian Deputy Foreign Minister Sergei Ryabkov called Washington's attempts to accuse Moscow of violating the Intermediate-Range Nuclear Forces (INF) Treaty "unacceptable," adding that the United States failed to provide the facts that could prove that violations had been made.

The United States has not provided a single fact confirming its accusations that Russia is violating the Intermediate-Range Nuclear Forces Treaty, Ryabkov said on Monday.

“Attempts to accuse Russia of violating several agreements, including the INF Treaty, are unacceptable for us ... During all the time when such accusations were voiced, the US side did not provide the facts which could have been used as grounds for such claims,” he told reporters.

The US-Russia row over the INF Treaty has been escalating recently. The US Senate has passed a new defense policy bill accusing Russia of violating the INF Treaty. The document has authorized the Defense Department to begin developing a new conventional road-mobile ground-launched cruise missile system with a range of between 500 (310 miles) to 5,500 kilometers.

The both sides are also working on the New START treaty, that was signed by Russia and the United States in 2010. Moscow and Washington jointly agreed to decrease the number of deployed nuclear warheads to 1,550 and the number of deployed intercontinental ballistic missiles, submarine-launched ballistic missiles and strategic bombers to 700 by 2018.

In February, media reported that US President Donald Trump denounced the treaty in his first phone call with Russian President Vladimir Putin, calling it a bad deal negotiated by his predecessor Barack Obama. In March, the head of US Strategic Command (STRATCOM), Gen. John Hyten, said that a possible cancellation of a nuclear arms reduction agreement between the United States and Russia might trigger an arms race.

The INF Treaty signed by Soviet President Mikhail Gorbachev and his US counterpart Ronald Reagan in 1987 prohibits the development, deployment, and testing of ground-launched ballistic or cruise missiles with ranges between 300 and 3,400 miles. Moscow and Washington have repeatedly accused each other of violating the treaty.

<https://sputniknews.com/world/201709251057678713-ryabkov-us-russia-inf-treaty/>

[Return to top](#)

TASS (Moscow, Russia)

Washington will not tolerate Russia's military advantage — US military chief

Author Not Attributed

September 27, 2017

The country's highest ranked military officer was asked by senators on how US should address the military implications" of "Russia's deployment of a nuclear ground-launched cruise missile"

Washington will not let Russia have military advantage over the United States, the country's highest ranking military officer told the Senate on Tuesday.

Chairman of the Joint Chiefs of Staff General Joseph Dunford on Tuesday addressed the Senate's Committee on Armed Services, which was to expand his term for another two years. Prior to the event, Dunford gave written responses to some of questions submitted by senators beforehand.

Among other things, the senators asked him how Washington should "address the military implications" of "Russia's deployment of a nuclear ground-launched cruise missile (GLCM)."

"We must continue to engage Russia, both directly and together with our allies to encourage them to return to full and verifiable compliance with the Intermediate Range Nuclear Force (INF) Treaty," Dunford said in his response, obtained by TASS. "The status quo, in which we are complying with the treaty and they are not, is untenable."

According to the US official, the deployment of a new GLCM, contributes "to Russia's broader set of nuclear and conventional strike capabilities that pose a threat to U.S. forces and our allies in the European and the Pacific Theaters."

"We will work with our allies and Congress to ensure we have the capabilities, both offensive and defensive, to ensure Russia does not gain a military advantage from violating the treaty," Dunford said.

According to the general, the Trump administration "has been conducting an extensive policy review of Russia's ongoing INF violation."

"This policy review will result in recommendations of an appropriate U.S. response, which will include potential military measures to increase pressure on Russia to return to full and verifiable compliance with its treaty obligations," he said.

"We are working with the Administration to provide greater detail in the coming weeks on our strategy to respond to Russia's INF violation," Dunford added.

One of the senators asked Dunford whether he still viewed Russia as "the greatest threat to our national security." The statement was made by Dunford during his nomination hearing back in 2015.

"Today Russia does present the greatest array of military challenges and remains the only potential existential threat to the United States," Dunford replied. "Russia is also modernizing all elements of its nuclear triad."

On September 18, the Senate passed a \$700 billion defense policy bill for fiscal year 2018 (to begin on October 1). The document, known as the National Defense Authorization Act, was passed by a 89-8 vote.

Under the text, the US president was to make a report to relevant Congress committees on whether Russia indeed tested, possessed or produced ground-launched cruise or ballistic missiles with ranges between 500 and 5,500 kilometers. If the answer is positive, then provisions of the INF treaty's Article IV will no longer be legally binding for the United States.

The article bars the sides from producing and testing deployed and non-deployed intermediate-range missiles and deployed and non-deployed launchers of such missiles.

At the same time, \$50 million were allocated to the Pentagon for designing systems to counter missiles with a range of 500-5,500 km.

<http://tass.com/defense/967657>

[Return to top](#)

MIDDLE EAST

The Washington Post (Washington, DC)

Trump's criticism of the Iran nuclear deal may only lead to more nuclear weapons

By Nicholas Miller

September 25, 2017

The Trump administration has an Oct. 15 deadline to certify to Congress that Iran is complying with the terms of the 2015 Joint Comprehensive Plan of Action, commonly known as the Iran nuclear deal.

Since January, the Trump administration has issued this certification every three months, and the International Atomic Energy Agency has repeatedly confirmed that Iran is in compliance — but the October certification remains unclear.

In a Sept. 19 address to the United Nations, Trump called the deal “an embarrassment to the United States” and said, “I don’t think you’ve heard the last of it.” In recent months, the administration claimed that Iranian missile tests and other regional activities “violate the spirit” of the deal. On Saturday, Trump responded to an Iranian missile test by declaring, “Not much of an agreement we have!”

What happens next will send a far broader signal about the U.S. commitment to nonproliferation

Although a decision to “decertify” Iran would not immediately blow up the deal, it could lay the groundwork for Congress to reimpose sanctions on Iran. This, in turn, might lead Iran to exit the agreement and ramp up its nuclear program to pre-2015 levels, raising the risk of proliferation or preventive war.

Trump may be using the threat as leverage to renegotiate the deal, but he faces a rocky road given Iranian opposition and the reluctance of many of the other P5+1 partners involved in brokering the deal: China, France, Germany, Russia and Britain.

Trump’s decision is important not only because of its implications for Iran and the wider Middle East; the decision is also crucial because of what it will communicate about the broader U.S. commitment to nonproliferation.

U.S. nonproliferation efforts have achieved notable success

For decades, preventing the spread of nuclear weapons has been a top U.S. priority. As I argue in a forthcoming book, U.S. policies help explain why only nine countries have nuclear weapons today — in contrast with the much higher numbers forecast in the early years of the nuclear age.

Historically, Washington’s effort to limit the spread of nuclear weapons has rested on four key pillars, but each is showing signs of crumbling:

1) Credibly opposing proliferation

In the late 1960s, the United States worked with the Soviet Union on the Non-Proliferation Treaty, which laid the foundation of the nonproliferation regime. Starting in the 1970s, the United States has threatened and imposed sanctions against friends and foes alike that have sought nuclear weapons.

Now mixed signals come out of Washington. During the 2016 campaign, Trump said it would be okay if Japan, South Korea or Saudi Arabia acquired nuclear weapons. In March, Secretary of State Rex Tillerson refused to rule out Japanese or South Korean proliferation.

2) Reassuring allies

A second essential element of U.S. nonproliferation policy is the extension of security guarantees and the U.S. nuclear umbrella to allied states. U.S. protection not only reduces the odds that allies feel the need to develop nuclear weapons, but it also provides leverage if an ally does begin seeking nuclear weapons.

Trump's "America First" foreign policy has raised significant doubts about U.S. alliance commitments, including NATO, South Korea and Japan. U.S. allies were already skittish for reasons unrelated to Trump — namely, Russia's renewed belligerence and North Korea's rapid nuclear advances. Today, South Koreans, Japanese and even Germans have renewed debates about hosting nuclear weapons or developing their own nuclear arsenals.

3) Reducing the salience of nuclear weapons

Over the past few decades, the United States has significantly reduced the size of its nuclear arsenal. President Barack Obama declared a goal of moving to a world without nuclear weapons (but his administration also supported an expensive program to modernize the U.S. nuclear arsenal).

The tone has markedly changed under the Trump administration. Shortly before taking office, Trump welcomed an arms race and called for the United States to "greatly strengthen and expand its nuclear capability." In recent months, Trump has lobbed a number of grisly nuclear threats, warning of "fire and fury" and promising to "totally destroy North Korea" in the event of a North Korean attack.

And the Trump administration reportedly is considering developing new "mini-nukes" with the aim of making nuclear weapons more usable in a conflict.

4) Providing a diplomatic exit to proliferators

U.S. nonproliferation policy also has succeeded when it offered adversaries a diplomatic off-ramp — by abandoning nuclear weapons programs, they can gain improved relations with the United States. In 2003, for example, the George W. Bush administration agreed to lift sanctions on Libya and drop a policy of regime change in exchange for Libya's giving up its weapons of mass destruction programs. A similar principle informed the Iran deal, as the P5+1 lifted sanctions in exchange for limits on Tehran's nuclear program.

This type of bargain is viable only when Washington can credibly assure its adversaries that it will uphold negotiated arrangements. The credibility of U.S. assurances was already highly questionable before Trump made the matter worse by threatening to scuttle the deal.

Over the past 15 years, the United States has launched an invasion of Iraq ostensibly for nonproliferation reasons — even though it had already disarmed — and supported the overthrow of Moammar Gaddafi even after he agreed to give up Libya's weapons programs.

Here's what this means for the Iran deal and U.S. nonproliferation policy

If Trump withdraws from the deal, it might permanently cement the perception that there is no durable diplomatic off-ramp for adversary proliferators.

Think of it this way: If the United States cannot be trusted to abide by a bargain and will sanction or invade your country even if you agree to limit your nuclear program, why would you agree to any limits? A viable nuclear deterrent is the one thing that might prevent a U.S. invasion, after all. This logic explains why many analysts warn that withdrawing from the deal would cripple any hopes of achieving limits on the North Korean nuclear program diplomatically.

Undermining the Iran deal would also strengthen the perception that Washington is not truly committed to opposing proliferation. A weakened or collapsed deal would increase the incentives for countries such as Saudi Arabia to seek their own nuclear weapons. And it would signal that the United States prioritizes preventing missile tests, hemming in Iranian support for proxy groups and achieving regime change in Iran over nonproliferation.

Given that several core pillars of U.S. nonproliferation policy are already showing signs of stress, the fate of the Iran deal may be even more important than it initially seems.

https://www.washingtonpost.com/news/monkey-cage/wp/2017/09/25/trumps-criticism-of-the-iran-nuclear-deal-may-only-lead-to-more-nuclear-weapons/?utm_term=.7f2428da6dc3

[Return to top](#)

The Jerusalem Post (Jerusalem, Israel)

European Envoys Join Arms To Defend Iran Deal

By Michael Wilner

September 26, 2017

“Nothing within the agreement is preventing us from facing the challenges raised by Iran.”

Envoys to the US from France, Britain, Germany and the EU shared a stage on Monday to publicly discourage President Donald Trump from withdrawing from a deal they together brokered with Iran in 2015 meant to govern its nuclear program.

Following private consultations among their leaders at the UN General Assembly last week, the European ambassadors all told the Atlantic Council that the Joint Comprehensive Plan of Action (JCPOA) was achieving its intended purpose of preventing Iran from acquiring fissile material for nuclear weapons.

The EU’s envoy underscored that Iran was in technical compliance with the agreement and the German ambassador said the deal provides for a safer world. But the representatives of Britain and France said their leaders share Trump’s concerns with provisions of the deal that will ultimately expire, allowing Iran to build its nuclear infrastructure to industrial scale.

All four ambassadors insisted that the nuclear portfolio remain separate from their other concerns about Iranian behavior, including its work on intercontinental ballistic missiles, its human rights abuses, its involvement in Syria and Yemen, and its support for terrorist networks worldwide.

The Americans “have legitimate concerns about the behavior of Iran in the Middle East,” said French Ambassador Gerard Araud.

“Nothing within the agreement is preventing us from facing the challenges raised by Iran.”

But the Trump administration argues that the JCPOA was designed to hold world powers hostage to Iran’s nuclear ambitions, preventing them in practice from checking Tehran’s regional activities out of fear such action will affect the viability of the nuclear accord.

Critics argue the JCPOA secures Iran as a nuclear threshold state with full international legitimacy – the very outcome its government sought in pursuing nuclear power in the first place – by providing them with all of the strategic benefits nuclear weapons bestow on states without all of the costs.

Trump officials are suggesting the president may decline to certify Iran’s compliance to the deal before an October 15 congressional deadline. The move would not directly effect the US role in the

JCPOA, but would kick off a 60-day review period on Capitol Hill that might lead to sanctions on Iran, and withdrawal from the accord.

"We were not totally satisfied with some parts of the agreement," Araud said. But he characterized renegotiation as a "non-starter" and claimed the Russians and the Chinese balk at the idea.

"It takes two to tango," he added.

Meeting with Trump last week, UK Prime Minister Theresa May offered concrete proposals on how to push back against Iran's regional "malign" behavior while staying in the deal, said their ambassador, Kim Darroch.

May also offered ideas on how the allies could address the JCPOA's sunset provisions.

The Trump administration, Darroch said, has "changed the climate already on Iran."

"It is succeeding," he added.

<http://www.jpost.com/Middle-East/Iran-News/European-envoys-join-arms-to-defend-Iran-deal-505959>

[Return to top](#)

BBC News (London, UK)

Iran tests missile despite Trump pressure

Author Not Attributed

September 23, 2017

Iran says it has successfully tested a new-medium range missile, in defiance of US President Donald Trump.

The launch of the Khoramshahr missile, which has a range of 2,000 km (1,242 miles), was shown on state TV. It is unclear when the test took place.

On Friday, Iranian President Hassan Rouhani said Iran would increase its military power "as a deterrent".

US President Donald Trump criticised the launch, saying the missile was capable of hitting its ally Israel.

The Khoramshahr missile was first displayed at a military parade on Friday in Tehran. It is capable of carrying multiple warheads, Iranian media report.

Iran's Defence Minister, Gen Amir Hatami, outlined the missile's "unique specifications".

"The ability to evade the enemy's air defence line and to be guided from the moment of launch until the target is hit turns Khoramshahr into a tactical missile," he said.

Iran would "not seek permission from any country for producing various kinds of missile", he added.

A message to Trump

By test-firing a new missile, Iran is sending another signal of defiance taken straight from the North Korean textbook.

The missile test is arguably a borderline case as far as the UN Security Council is concerned. A resolution calls on Iran not to undertake any activity related to ballistic missiles designed to be capable of delivering nuclear weapons.

The test comes ahead of two significant dates in the US:

- The Trump administration is due to announce the details of its strategy vis-à-vis Iran around the end of September
- On 15 October, Mr Trump will have to certify to Congress that Iran is compliant with the nuclear deal it reached with world powers in 2015. If Mr Trump refuses to certify compliance, Congress will have 60 days to re-impose sanctions on Iran

Iran's test is a message to the US that it is determined to defend itself in any way it sees fit but it could also ultimately work against Iran as world public opinion will compare it to North Korea.

Missile tests in Iran are said to require the approval of Mr Rouhani, and now it seems he has been pushed into a corner with the hardliners in Iran who see the North Korean path as the best response to Mr Trump's rhetoric and his disdain for the nuclear deal.

The US announced fresh sanctions on Iran in July over its ballistic missile programme and what it said was Iran's support for terror organisations.

It also imposed sanctions on Iran after a ballistic missile test in January. It says such launches violate the spirit of the 2015 agreement between Iran and six world powers to limit its nuclear programme in exchange for sanctions relief.

In a tweet on Saturday, Mr Trump criticised Iran and accused it, without elaborating, of co-operating with the North Korean regime.

Tehran insists its missile programme does not contravene the agreement. It says the missiles are not meant to carry nuclear warheads.

At the UN General Assembly this week, the US and Iranian leaders traded barbs.

Mr Trump included Iran among a "small group of rogue regimes", said its government was bent on "death and destruction" and said the nuclear agreement was an "embarrassment" to the US.

Mr Rouhani responded by referring to a "rogue newcomer to international politics" and deplored the US leader's "ignorant, absurd and hateful rhetoric".

He said his country would "not be the first" to violate the deal, which Mr Trump has threatened to pull out of despite other signatories and international monitors saying Iran has stuck by its terms.

On Wednesday, Mr Trump said he had already made up his mind but would not yet reveal his decision.

<http://www.bbc.com/news/world-middle-east-41371309>

[Return to top](#)

Telesur (Caracas, Venezuela)

Syria Calls Out 'Double Standard' For Israel Nuclear Arsenal

Author Not Attributed

September 22, 2017

Israel is believed by many experts to have at least 80 nuclear warheads, and has refused to sign the Non-Proliferation Treaty.

Syria has accused several United Nations member states of holding double standards regarding Israeli nuclear capabilities, which continue outside the Non-Proliferation Treaty framework, Syrian news agency SANA reported.

Syria's Permanent Representative to the United Nations, Bassam al-Sabbagh, was quoted by SANA as saying that "some U.N. member states, including nuclear powers, have clear double standards when it comes to Israel's nuclear capabilities."

The remarks were made while speaking at the 61st Annual Regular Session of the International Atomic Energy Agency General Conference in Vienna.

"It is a source of deep concern for the countries of the Middle East region that the Zionist entity, with the nuclear capabilities it possesses, remains outside the framework of the Non-Proliferation Treaty (NPT) and the Comprehensive Safeguards Agreement," SANA quotes al-Sabbagh as saying.

Israel has never officially affirmed or denied that it has nuclear weapons, adopting a position of intentional ambiguity on the matter. However, most experts believe that they have a nuclear arsenal of at least 80 warheads.

In spite of having been placed under international pressure to do so for many years, Israel has refused to sign the Non-Proliferation Treaty on the basis that the treaty runs counter to their national security interests. Along with India and Pakistan, they are one of three U.N. member states believed to possess nuclear weapons that have not signed the treaty.

In 2003 in the midst of the United States' invasion in Iraq on the pretext of supposedly existing weapons of mass destruction (WMD's), Syria submitted a draft resolution to the United Nations Security Council to make the Middle East a "WMD-free zone," a resolution that would include Israel. It was the United States who ultimately opposed and rejected the proposal.

The remarks by al-Sabbagh come as the United States ramps up accusations and threats toward Iran, saying that 2015's landmark nuclear deal with the country was the "worst deal ever." In spite of the fact that Iran has repeatedly reiterated that it has only ever sought peaceful forms of nuclear technology, and has been confirmed internationally to be in compliance with the nuclear deal, the United States has accused Iran of desiring to develop nuclear arms potential.

U.S. President Donald Trump also threatened to "totally destroy" the Democratic People's Republic of Korea (DPRK) if they do not stop missile and nuclear tests.

<https://www.telesurtv.net/english/news/Syria-Calls-Out-Double-Standard-For-Israel-Nuclear-Arsenal-20170922-0001.html>

[Return to top](#)

INDIA/PAKISTAN

India Today (New Delhi, India)

Indian Army might get Pinaka rockets to counter Pakistan's mini-nuclear weapons

By Ajit Kumar Dubey

September 26, 2017

Sources in the government revealed that the Indian Army might get its hands on Pinaka rockets to counter Pakistan's threats on using tactical nuclear weapons.

While Pakistani Prime Minister Shahid Khaqan Abbasi has again flaunted his country's tactical nuclear weapons, NDA government sources said India has the option of developing the Pinaka guided rockets to match the mini-nukes of its western neighbour in the battlefield.

Abbasi said in the US this week that his country possesses tactical or battlefield nuclear weapons, which can be used to check the advance of Indian tank regiments as part of New Delhi's "cold-start war doctrine". "The Pakistanis have been flaunting their tactical nukes which they have developed with the help of the Chinese. At present, we don't have these weapons in our arsenal but if asked by the government, we have the option of developing the Pinaka guided rockets for delivering nuclear warheads at small ranges," government sources told Mail Today.

Tactical nuclear weapons include short-range missiles, artillery shells and torpedoes which are equipped with nuclear warheads. Sources said the Indian government has not yet asked the agencies concerned to develop the Pinaka guided missile to be used as a nuclear delivery weapon system.

ABOUT PINAKA ROCKETS

The Pinaka rockets have been developed by the DRDO as battlefield multi-barrel rocket launcher to take down enemy tanks and other moving targets at the strike ranges of 70 to 80km. A group of scientists from America has also said in its report that the Pakistanis have stored their tactical nukes at nine different locations across the country and mostly near the bases which have the capability to launch big nuclear missiles.

The scientists also feel that since these battlefield nukes would be distributed much in advance and in large numbers to the field fighting formations, the chances of accidents or their being transferred to other elements is also very high. The guided Pinaka has been developed by Pune-based Armament Research and Development Establishment (ARDE) and Defence Research and Development Laboratory.

Pinaka Rocket Mark-II, which has evolved from Pinaka Mark-I, is equipped with navigation, guidance and control kit, and is converted to a guided Pinaka. This conversion has led to enhancement of its strike range and considerably improved its accuracy. The rocket was fired from a multi-barrel rocket launcher (MBRL).

The rocket launcher can fire 12 rockets with 1.2 tonne of high explosives within 44 seconds and destroy a target area of four sq km at a time. The quick reaction time and high rate of fire of the system gives an edge to the Army during a low-intensity conflict situation. The weapon's capability to incorporate several types of warheads makes it deadly for the enemy as it can even destroy their solid structures and bunkers. The performance of the previous version of Pinaka was lauded during the Kargil War, where it was successful in neutralising enemy positions on mountain tops. After both India and Pakistan came out openly with their capability to produce and use nuclear weapons in 1998, New Delhi has adopted a responsible stance by declaring a 'no-first use' policy while

Islamabad used its weapons to blackmail the western countries while continuing its support for international terror groups.

<https://www.telesurtv.net/english/news/Syria-Calls-Out-Double-Standard-For-Israel-Nuclear-Arsenal-20170922-0001.html>

[Return to top](#)

Voltaire Network (Paris, France)

US NSA Spying On India's Nuclear Weapons

By Shelley Kasli

September 26, 2017

Long before India detonated a nuclear device in May 1974, the U.S. Intelligence Community was monitoring and analyzing Indian civilian and military nuclear energy activities as we reported earlier. Unclassified Top Secret documents show that as early as 1958 the CIA was exploring the possibility that India might choose to develop nuclear weapons. The reports focus on a wide range of nuclear related matters – nuclear policy (including policy concerning weapons development), reactor construction and operations, foreign assistance, the tests themselves, and the domestic and international impact of the tests.

Documents from 1974-1975 and 1998 provide assessments of the reason why the U.S. Intelligence Community failed to provide warning of the 1974 and 1998 tests – assessments which are strikingly similar. They also include recommendations to address the deficiencies in performance that the assessments identified.

New documents from the Snowden Archive – The SIDtoday Files recently released by The Intercept give a glimpse into one such NSA interception program. SIDtoday is the internal newsletter for the NSA's most important division, the Signals Intelligence Directorate. After editorial review, The Intercept is releasing nine years' worth of newsletters in batches, starting with 2003. The agency's spies explain a surprising amount about what they were doing, how they were doing it, and why.

A series of nuclear weapons tests conducted by India in the spring of 1998 took the intelligence community by surprise, prompting an internal investigation into why these tests had not been foreseen; a subsequent report was harshly critical of the U.S. intelligence community. A similar lapse in data gathering would not happen again in 2005.

In October 2004, one signals intelligence program, "RAINFALL," "successfully geolocated signals of a suspected Indian nuclear weapons storage facility." In response, several other parts of the NSA collaborated to confirm that the signals were related to Indian nuclear weapons, and to begin a new collection effort that revealed "spectacular" amounts of intelligence on India's nuclear weapons capabilities.

An Australian NSA site, RAINFALL, isolated a signal it suspected was associated with an Indian nuclear facility, according to SIDtoday. Collaboration between RAINFALL and two NSA stations in Thailand (INDRA and LEMONWOOD) confirmed the source of the signals and allowed for the interception of information about several new Indian missile initiatives. Although these missile systems did not come to public attention for several more years (the Sagarika submarine-launched ballistic missile was first tested in 2008), the NSA's access to these signals gave them foreknowledge of their Third Party SIGINT partner's actions.

One recent SIGINT success against India's Nuclear Weapons Development Program exemplifies the Agency's new environment of cross-program collaboration in satisfying intelligence needs. This is a great example of SIGINT programs working together to achieve a common goal. In October 2004, RAINFALL successfully geolocated signals of a suspected Indian nuclear weapons storage facility. This prompted a Foreign Satellite (FORNSAT) collection facility, LEMONWOOD, and the Unidentified Signal and Protocol Analysis Branch (S31124) at NSA to collaborate in isolating these signals and, through signals development, confirm their content as related to Indian nuclear weapons. This breakthrough highlighted the need to deploy additional demodulating equipment to LEMONWOOD in order to expand a modest collection effort undertaken since the signal was discovered in October.

Immediately after fielding this equipment, collection of this new network began to provide what is being called "spectacular" activity. Exploitation of that collection revealed India's first-ever SAGARIKA Submarine-Launched Ballistic Missile (SLBM) launch; DHANUSH sea-launched Short Range Ballistic Missile (SRBM); and pilotless target aircraft.

Collection from this new access has also provided significant intelligence on India's possession of two different types of airdropped bombs, one believed to be a very large Fuel Air Explosive (FAE) bomb of an unidentified type. The other, not yet confirmed by the analytic community, may be a new generation of airdropped nuclear weapons.

While the collection that resulted from interagency collaboration has been categorized as spectacular, what is most impressive is the growing trend of collaboration seen across the entire Agency. What were once technological challenges are now collaboration opportunities that offer the promise of a seamless, interoperable and responsive National Security Agency.

It should also be remembered that the National Security Agency (NSA) of the United States installed a super spy software named APPARITION in New Delhi, as we reported earlier. The APPARITION program pinpoints the locations of people accessing the Internet across sensitive locations. Subsequent actionable intelligence information may lead to sending lethal Reaper drones to eliminate the target. The Top Secret reports speak of an SCS surveillance unit being set up in the embassy campus in New Delhi that operated under the codename DAISY. However, the Indian Government has not responded or is yet to make a statement regarding this Embassy Espionage.

As can be seen from the classified intelligence documents itself that the US Intelligence community was highly concerned about its failure to detect India's Nuclear tests in advance. The Community after identifying and assessing the deficiencies in performance that led to this failure made recommendations to determine what steps should be taken to reduce the chances of a similar failure in the future.

What were those steps taken by the US Intelligence community to track India's Nuclear program? The above case is just one such example. Are the ongoing killings of India's scientists around the country since decades a continuation of such policies? Was the crash of Air India Flight 101 near Mont Blanc in which Homi J. Bhabha was also travelling a direct result of such steps? Is the Indian Intelligence community aware about those steps? If so, have they prepared a strategy and taken appropriate steps to counter such spying activities and covert operations targeting India's Nuclear program? If not, a good place to start would be to open a fresh investigation into the assassination of the father of our Nuclear program – Homi J. Bhabha.

<http://www.voltairenet.org/article197975.html>

[Return to top](#)

The Times of India (New Delhi, India)

India, US should go for pre-emptive strikes, destroy Pak's N-assets: Ex-US senator

By Vaibhav Purandarel

September 26, 2017

Suggesting that both India and the US conduct pre-emptive strikes inside Pakistan to destroy its nuclear sites (where weapons have either already been stored or are being made), former US Senator Larry Pressler told TOI on Monday that Donald Trump may turn out to be the best American president yet for India as he had recently put Pakistan on notice for harbouring terrorists.

But for this to happen, Trump would have to get around the Pentagon, which always encouraged Pakistan, he said. Such encouragement emboldened Pakistan to attack India as "the mother of terrorism" and "predator" at the UN general assembly session on Sunday, he added. Trump's description of the Pentagon as "a swamp" was a good sign, he noted, hoping the US president would drain it soon (as he'd promised).

A three-term Senator and twice a member of the House of Representatives, Pressler (75) authored the famous Pressler Amendment which in 1990 blocked US military aid to Pakistan when the then US President George H W Bush could not certify Pakistan was not developing nukes.

As the delivery of close to 30 F-16 aircraft to Islamabad was barred, Pressler, then a Republican and head of the Senate's arms control subcommittee, became something of a hero in India and, in his own words, "a devil in Pakistan." His new book, *Neighbours in Arms*, engagingly tells the story of the amendment and of the US foreign policy that enabled Pakistan to develop nuclear weapons and casts a severe spotlight on the culture of lobbying in Washington and the grip of the military-industrial state ("the Octopus") inside the US.

Pressler has long distanced himself from the Republican Party — he contested Senate polls as an Independent in 2014 and backed Hillary Clinton in the 2016 Presidential polls — but despite differences with Trump, he feels the president is not doing half as badly as US media suggests.

Trump's warning to Pakistan on its sheltering and export of terror, linking of US aid to "action on terror" and his request to India to "help us more with Afghanistan" signalled a recasting of relations.

The ex-Senator hopes Trump will act on the notice.

"US must declare Pakistan a terrorist state, cut off all aid and must not treat India and Pakistan as equals. India is a democracy, Pakistan isn't. And Pakistan and especially the ISI have lied to us for decades," he said.

All praise for PM Modi, the Vietnam veteran said it was good the Modi government was tough with Pakistan.

He called the denial of a US visa to Modi when the latter was Gujarat CM "a stain" on the US. He was critical of India, however, for allegedly handing out millions to lobbyists in Washington. "Pakistan started this lobbying. India doesn't need to do it," he said. He said Pakistan couldn't have developed nuclear weapons if US had stopped aid.

Having worked closely with many US presidents, he felt Ronald Reagan had been very receptive to his ideas on nuclear non-proliferation and his views on Pakistan's duplicity but had been hemmed in by "Octopus" mandarins. And Bill Clinton had, on his 2001 trip to India (Pressler was part of that

delegation), given the impression that he loved the country and its people but had, in reality, repealed the Pressler Amendment and encouraged military supplies to India's hostile neighbour.

Pressler was criticised when, in the 1990s, he had expressed concerns about an "Islamic bomb." He said he stood vindicated today and that the growth of ISIS and similar groups led him to fear that fundamentalist organisations - and not individual states - may create a "Caliphate."

<http://timesofindia.indiatimes.com/india/india-us-should-go-for-pre-emptive-strikes-destroy-paks-n-assets-ex-us-senator/articleshow/60834852.cms>

[Return to top](#)

NDTV (New Delhi, India)

India Calls for Building Trust, Confidence Among Nuclear Weapon States

Author Not Attributed

September 27, 2017

Syed Akbaruddin said that this goal can be achieved through a step-by-step process underwritten by a universal commitment and an agreed global and non-discriminatory multilateral framework.

India has called for a meaningful dialogue among all states possessing nuclear weapons to build trust and confidence and for reducing the salience of atomic weapons in international affairs.

"India remains committed to the goal of a nuclear weapons free world and the complete elimination of nuclear weapons consistent with the highest priority accorded to nuclear disarmament," India's Permanent Representative to the UN, Syed Akbaruddin, said in his remarks at the high-level plenary meeting to commemorate and promote the International Day for the Total Elimination of Nuclear Weapons on Tuesday.

He said that this goal can be achieved through a step-by-step process underwritten by a universal commitment and an agreed global and non-discriminatory multilateral framework.

"There is need for a meaningful dialogue among all states possessing nuclear weapons to build trust and confidence and for reducing the salience of nuclear weapons in international affairs and security doctrines," the Indian diplomat said.

India, he said, considers the Conference on Disarmament -- the world's single multilateral disarmament negotiating forum -- as the appropriate forum for the commencement of negotiations on nuclear disarmament.

Mr Akbaruddin regretted that the conference has been prevented from adopting a programme of work that reflects the international community's desire for progress on nuclear disarmament and nonproliferation in all its aspects.

"For its part, India stands ready to commence negotiations in the Conference on Disarmament on a comprehensive Nuclear Weapons Convention on the lines of the Chemical Weapons Convention, the only comprehensive and internationally verifiable treaty so far banning an entire category of weapons of mass destruction and providing for their elimination," the top Indian diplomat said.

Further, India supports the commencement of negotiations in the Conference on Disarmament on a Fissile Material Cut-off Treaty, he said.

"We believe that increasing restraints on the use of nuclear weapons would reduce the probability of their use whether deliberate, unintentional or accidental, and this process could contribute to the

progressive de-legitimation of nuclear weapons, an essential step for their eventual elimination, as has been the experience for chemical and biological weapons," Mr Akbaruddin said.

Earlier in his remarks, UN Secretary-General Antonio Guterres said the only world that is safe from the use of nuclear weapons is a world that is completely free of the nuclear weapons themselves.

"The goal of such a world is universally held, but of late it has been subject to numerous challenges," he said.

Condemning a series of nuclear and missile tests by North Korea, the UN chief said Pyongyang's "provocative" actions have heightened tensions and highlighted the dangers of proliferation.

<https://www.ndtv.com/india-news/india-calls-for-building-trust-confidence-among-nuclear-weapon-states-1755786>

[Return to top](#)

AFRICA

Today.ng (Akwa Ibom, Nigeria)

Chemical warfare threatens Nigeria's economy – Group

By Sheriff Bona

September 25, 2017

The Chemical Society of Nigeria (CSN) has raised the alarm that global chemical warfare remained a threat to Nigeria's economy.

To this end, the Society suggested that, as a matter of urgency, a step down workshop should be organised as a precursor to the introduction of green chemistry to arrest the situation.

It, therefore, urged the Federal Government to key into the green chemistry initiative by advocating a bio-based economy.

The CSN also called on Government to develop robust and reliable sensors for detection of chemicals, biological and radioactive agents in the environment.

These are some of the recommendations made by delegates to a 4 -day international conference and workshop of the Society which ended in Kaduna at the weekend.

The theme of the conference was, "Green chemistry as a catalyst for economic growth and national security"

This was contained In a communiqué, signed by the CSN President, Professor Sunday Olawale Okeniyi, at the end of the event.

"Nigeria's economy is increasingly being threatened because of chemical warfare, the use of chemicals and drugs and violence against humanity across the globe.

"We will take CSN to higher height and encourage synergy with similar organisations across the globe in the interest of national development.

"We pledge our unalloyed loyalty to the Federal Government of Nigeria and to assist private individuals towards implementing its recommendations.

"We are also calling on government at all levels to strengthen regulatory and legal framework in order to reinforce chemical security in the country because it will reduce global chemical threat and prevent terrorist access to chemical weapons," the communiqué said.

More than 600 delegates from all over the world attended the conference.

<https://www.today.ng/news/nigeria/17045/chemical-warfare-threatens-nigerias-economy-group>

[Return to top](#)

eNews Channel Africa (Johannesburg, South Africa)

President Zuma signs UN treaty banning nuclear weapons

Author Not Attributed

September 21, 2017

South Africa has joined a United Nations alliance of over 40 countries banning the use of nuclear weapons.

On Wednesday President Jacob put a pen to paper on the UN's treaty banning nuclear weapons. The move comes amid rising tensions between North Korea and the United States as the east Asian country continues its missile tests.

South African Nuclear Energy Corporation Chairman Dr Kelvin Kemm hailed the move citing that countries that have nuclear weapons are not going to unilaterally get rid of them rather they'll do it one for one.

Sarah Swart of Red Cross's Regional Legal Advisor also echoed Kemm's sentiments saying South Africa is a shining example of nuclear disarmament.

"SA remains the one and only country that has ever voluntarily disbanded its nuclear weapons programme which the government did towards the end of apartheid."

"That already gives South Africa moral authority to speak on this issue. Then in 1996 we see Africa coming together as a continent to negotiate the Pelindaba Treaty, which creates the continent as a nuclear weapons free zone. Again an outstanding achievement," Swart said.

All the while, US President Donald Trump is talking tough, saying the US won't hesitate to totally destroy North Korea. Swart believes this escalation in tensions ironically helps the cause.

"A number of people are saying that the threat of use that we have been seeing at an international level is a sign that we'll never achieve a world without nuclear weapons. Personally and I believe this is the view of the ICRC too, it couldn't have come at a better time to remind us how important this treaty is," Swart said.

While he welcomes the treaty, nuclear physicist, Dr Kelvin Kem, says he labours under no illusion about the difficulty that lies ahead.

"What the new one now says is countries that have nuclear weapons can still sign now and then they have some period of grace during which they must get rid of their weapons. But I can't imagine the one country will do it unless the others keep pace. So that to my mind is the problem."

About 122 countries voted to adopt the treaty on the 7th of July. A large majority of the world's countries have been calling for this treaty since at least 1945 but it only marks the beginning of a long road to convincing nuclear weapons possessing states to give it all up.

<http://www.enca.com/south-africa/sa-signs-deal-to-ban-use-of-nuclear-weapons>

[Return to top](#)

COMMENTARY

Foreign Policy Magazine (Washington, DC)

Why Donald Trump Wants His Nukes to Be Smaller

By Jeffrey Lewis

September 21, 2017

Be wary of tiny nukes in tiny hands.

So President Donald Trump wants a mini-nuke. At least that is what Politico's Bryan Bender reports is under consideration in the government's ongoing Nuclear Posture Review, which may propose "smaller, more tactical nuclear weapons that would cause less damage than traditional thermonuclear bombs — a move that would give military commanders more options but could also make the use of atomic arms more likely."

This is hardly surprising. As I wrote in February, it was always clear that Trump's Nuclear Posture Review "will be, like the 2002 version, a quick and dirty affair that is basically the same wish list as the unpublished December 2016 Defense Science Board study," which emphasized low-yield nuclear weapons.

Nothing freaked out people more than the portion of the 2002 Nuclear Posture Review that leaked to the press calling new "options for variable and reduced yields" one of a series of "desired capabilities" for the U.S. nuclear arsenal. The 2002 NPR, along with George W. Bush administration proposals for "new" nuclear warheads like the Robust Nuclear Earth Penetrator, met fierce resistance from a number of quarters including Republicans in Congress. When President Barack Obama took office, his NPR stated flatly that the United States would not develop "new" nuclear weapons, a term left undefined.

And nothing was more certain than that once Republicans were back in control there would be new proposals for low-yield nuclear weapons.

But here's the weird thing: We already have low-yield nuclear weapons. And Obama was developing new ones, no matter what his pretty little Nuclear Posture Review said. The debate in the press isn't really about tiny nuclear weapons; it is about tiny nuclear weapons in Trump's tiny hands.

Yes, Virginia, the United States has low-yield nuclear weapons. The B61 family of gravity bombs and W80 cruise missile warheads both have a "variable yield" function that allows them to explode well below their full yield, presumably by just detonating the fission bomb at the heart of a thermonuclear weapon. The B61 Mod 10, for example, was a "dial-a-yield" device that could be set for a range of options from the full yield of 80 kilotons down to about 300 tons. Three hundred tons! The bomb that destroyed Nagasaki was more than 50 times larger.

The W80 has similar setting, with two yield options at five and 150 kilotons. According to Stephen Young at the Union of Concerned Scientists, the life-extended version of this warhead, the W80-4 that will arm the new cruise missile, will have additional low-yield options.

Nuclear weapons advocates used to know this. They complained all the time about an early 1990s congressional amendment, called Spratt-Furse, that constrained research and development on new low-yield nuclear weapons. George W. Bush administration officials, who successfully sought repeal of the measure, argued that modern thermonuclear weapons had primaries with yields prohibited by Spratt-Furse, creating a legal nightmare. "We were in a situation where to think about anything you sort of had to have two physicists, an engineer, and a lawyer," argued Linton Brooks, then the

administrator of the National Nuclear Security Administration, “because most concepts could lead to low-yield [weapons], regardless of what they were designed to do.”

I don’t mean to attack poor Linton for these complaints — in fact, I agree with him. Spratt-Furse was an imperfect instrument that many Democrats, including Rep. Ellen Tauscher and Rep. John Spratt himself, thought might be replaced with something better. Unfortunately, it wasn’t replaced — it was simply repealed during the Bush administration, which then... proceeded not to develop new low-yield nuclear weapons. (The big nuclear weapons projects of the Bush administration — the Robust Nuclear Earth Penetrator and Reliable Replacement Warhead — had normal yields.)

No, it was Barack Obama’s administration that, despite a pledge not to develop “new” nuclear weapons or nuclear weapons with new capabilities, programmed a life-extension program for a new variable yield version of the W80 warhead to arm the new Long-Range Standoff (LRSO) cruise missile.

The justification provided by the Obama administration, while it varied a bit depending on who was defending it and when, largely focused on the concern that Russia was also developing low-yield weapons that it planned to use in a conflict — a strategy that American analysts call “escalate to de-escalate.” Frank Kendall explained it somewhat obliquely this way: “Beyond deterrence, an LRSO-armed bomber force provides the President with uniquely flexible options in an extreme crisis, particularly the ability to signal intent and control escalation.”

This sentence, which appears to be written in whatever dialect of Dwarvish is spoken by Pentagon bureaucrats, sometimes gets misinterpreted as a threat to use U.S. nuclear weapons pre-emptively. But take the jargon slowly and its meaning is revealed in normal language — to be precise, it’s revealed to be pretty dumb. “Beyond deterrence” means that the Russians have used nuclear weapons against us, as does “extreme crisis.” “An LRSO-armed bomber force” just means bombers with new cruise missiles (and new nuclear warheads). “Flexible options” means following a limited Russian nuclear use with a limited one of our own, allowing us to “signal intent” — warn that we are prepared to do the deed — but also to “control escalation” — without doing it quite yet. So, if the Russians nuke us a little bit, we can use our bombers to nuke them back just a little bit too, so Putin knows we are now mad enough to have a nuclear war, but only if he wants to. As I said, pretty dumb.

You might have also noticed that this is the very same argument given for the new low-yield warheads in Bender’s piece: “to confront Russia, which has raised the prominence of tactical nuclear weapons in its battle plans in recent years, including as a first-strike weapon.” I am not privy to what Trump’s Nuclear Posture Review is planning, of course, but all this talk is very much like the Obama-bomb that was already on the books to offer a low-yield option for the new nuclear-armed cruise missiles. The difference is that Obama was very polite about it. Donald Trump is, well, Donald Trump.

Now, I don’t feel at all bad that Donald Trump is being held to a different standard than Barrack Obama. I don’t trust the Mango Mussolini with sharp objects, let alone nuclear weapons. This is a man who seems determined to start a nuclear war with his Twitter account. It’s not unfair. Character counts in life.

But still, low-yield nuclear weapons are a silly idea regardless of who wants to build them. It is not clear to me that the United States needs either the LRSO or a warhead with low-yield options. But we should make a distinction between these two problems — the folly of low-yield nuclear weapons and the folly of Donald Trump commanding any nuclear weapons at all, regardless of yield.

Proposals for low-yield nuclear weapons have been around for decades essentially because nuclear weapons designers think they are cool. They are a solution in search of a problem. At the moment, the trendy problem is Russia, but if President Vladimir Putin dropped stone dead tomorrow, there would be a new justification for these things. While I am sure that the Russian nuclear laboratories also want to design mini-nukes for the same reason that our laboratories do, I am not convinced by the logic offered by Kendall or Bender's anonymous source. Where does this idea that Russia is going to engage in a limited nuclear use — which is often called “escalate to de-escalate” — come from? Not the Russians. Olga Oliker, who I think is doing the best work on Russian nuclear doctrine these days, is pretty skeptical of such talk. “They do not track with what I know of Russian nuclear strategy,” she writes, “nor with how Russians talk about it, for the most part.”

I am no expert in Russian nuclear strategy, but I did live in Washington, D.C., for more than a decade. I know a convenient rationalization when I see one. It's a kind of “Russian nuclear policy” that actually seems a lot more like an American fantasy about Russian nuclear policy. It's the nuclear doctrinal equivalent of Penthouse Forum. “Dear Pentagon Forum: I never thought this would happen to me, but last night, in our war-game, I noticed the Russian player kept moving his bombers closer to mine...”

My colleague, Nikolai Sokov, points out that Russian scenarios for nuclear first use are, in fact, defensive ones in which NATO has threatened to overwhelm Russia conventionally. While I am fairly worried about Russian conventional aggression in Europe — and it's not clear that NATO could conventionally defend some of its neighbors — Putin strikes me as far more likely to use “little green men” than nuclear bombs.

Moreover, I don't see how a lower-yield setting will make the W80 any more credible than the highest-yield setting. The framing at the beginning of Bender's piece — “more options but could also make the use of atomic arms more likely” — seems wrong to me. Linton Brooks, back when he was being attacked for supporting the repeal of Spratt-Furse, used to point out that low-yield weapons don't lower the threshold for nuclear use relative to high-yield weapons. I think he was right about that too, although we certainly disagreed about which weapons the United States should build. I am not as worried as some of my colleagues that these weapons will make nuclear war more likely because... I think they are still approximately useless. Nuclear weapons are nuclear weapons, and it seems very unlikely to me that a president is going to be confident that he can start a limited nuclear war that doesn't become a very big one, quickly.

Let's say the Russians use a low-yield nuclear weapon against Poland or one of the Baltics. OK. Do we actually think that retaliating against a target in Mother Russia with a B61 set on 300 tons will be somehow less dangerous than sending one set on 80 kilotons? I think you are starting a nuclear war with the Russians either way. In for a ton, in for a megaton, I say. In for a ton, in for a megaton, I say.

The entire debate over low-yield nuclear weapons seems to represent a nostalgic revival of the one of the worst tendencies of the Cold War. Nuclear deterrence, Michael Krepon has argued, works best at the conceptual level. When those concepts become plans, they strain credulity. One way to look at the history of the Cold War is to see it as an unending series of technical solutions to what was a fundamentally unsolvable political problem stemming from the fact that a nuclear war can't be won. Roger Molander captured that beautifully in the title of his 1982 book, *Nuclear War: What's in It for You?*

These proposals for low-yield warheads implicitly admit this criticism. We can't use our current arsenal of nuclear weapons because that might cause a nuclear war! But instead of admitting how fanciful all this is, we imagine there must be some technical solution to our intractable political problem. Maybe we can make them smaller! It's like Goldilocks looking for a nuclear bomb that is

just right — not so cold that it fails to deter, but not too hot so that we all perish in a nuclear holocaust. And, as with Goldilocks, this story is a fairy tale. What makes nuclear weapons special is that they are destructive — leveling cities and setting them afire. The most basic conceptions of deterrence rest on that idea. Trump is pretty explicit about the horror of nuclear war being how the damn things work — “With nuclear, the power, the devastation is very important to me” — something that most experts clean up so it doesn’t sound so awful. But Trump is right. As I’ve previously written, he is “a spirit guide to the dark recesses of our brains, the place that convinces us the best guarantor of peace and security is the unending and permanent threat of nuclear holocaust.”

The problem is that “the devastation” is what makes nuclear weapons special — their awfulness creates the central dilemma of the nuclear age: They are too awful to use and offer only mutual suicide, a shared danger that Robert Oppenheimer likened to two scorpions, trapped together in a bottle. They keep the peace, but there is a terrible danger we cannot escape. That is the unpleasant implication of the devastation that Trump intuitively senses, in the same accidental way he almost understands Citizen Kane, before shutting down and blocking out the unwelcome meaning. But we can face it: The problem isn’t the tiny nukes that Obama wanted, or Trump’s tiny hands on them; it’s our tiny ideas, far too timid and feeble for the terrible truth of the nuclear age.

<http://foreignpolicy.com/2017/09/21/why-donald-trump-wants-his-nukes-to-be-smaller/>
[Return to top](#)

The Financial Times (London, UK)

The nuclear threat can be contained by diplomacy

By John Sawers

September 24, 2017

These issues are manageable if they are given the right degree of priority

Nuclear weapons are back on the agenda. There is now a greater risk of them being used than at any time since the 1960s. While we wrestle with America’s global retreat, Brexit, and dealing with Islamist terrorism, we must not lose sight of the one issue that could upend the international order and destroy our way of life.

There are now nine states with nuclear weapons. For six of them — the US, Britain, France, Israel, India and China — they are purely defensive weapons, designed solely as the ultimate means to deter attack. The remaining three think differently. Russia and Pakistan also conceive of using nuclear weapons as a means of turning a limited conflict in their favour. North Korea wants nuclear weapons to hold others at threat, both to protect the regime and to secure more practical benefits.

Nuclear weapons create a military balance where one does not exist between conventional forces. During the cold war, the Soviets had superior armed forces and Nato had to rely on the threat of nuclear retaliation to keep the peace. However skilful Russia’s use of the new weapons of hybrid warfare, the balance between regular forces is now reversed. Russia’s military doctrine also provides for battlefield nuclear weapons being used to bring a war in central Europe to an end on Russia’s terms. Its forces train for that scenario, and we have to take it seriously.

Pakistan has developed battlefield nuclear weapons as a means to defend itself. India has declared that it would respond militarily if there was another major terror attack out of Pakistan like the one in Mumbai in 2008. Knowing they would be overwhelmed by Indian forces, these weapons are Pakistan’s way to halt Indian forces shortly after they cross the border. When I was chief of MI6, I

was concerned that the Indians did not understand how quickly they could cross a Pakistani nuclear tripwire. A wider nuclear exchange then becomes a real risk.

North Korea is the issue of the day. The objective of a denuclearised Korean peninsula, pursued by the previous US administrations, is no longer an achievable goal. The best that can be hoped for is the suspension of nuclear and missile testing in return for security assurances and practical aid. Sanctions are designed to draw Kim Jong Un into a negotiation with that aim, and to pressure China to take a more active part.

But it is very hard to see President Kim pulling back now. And China is more concerned about a new US-led war in Korea or the north collapsing and sending millions of refugees into China, than it is about living with a nuclear armed Pyongyang.

The US only really has two strategic options: contain and deter the threat; or destroy it, which would require regime change. There are always military options. But all who have studied the secret Pentagon plans are sobered by the scale of loss of life in South Korea these would entail. There is also a risk of China reluctantly coming to the aid of the north as it did in the 1950s.

Realistically, it seems the only practical option is containment. That requires missile defence systems to create uncertainty that nuclear-tipped missiles would ever get through to their target, and to deter any use of such weapons by being clear that North Korea would be destroyed if it ever tried to use them. Mr Kim may be hard for us to comprehend, but he is a rational actor and he is certainly not suicidal.

There is also a proliferation threat. We have seen how Pyongyang has used its nuclear technology as an export earner. In 2007, the Israelis destroyed a secret nuclear reactor in the Syrian desert that had been designed and built by the North Koreans.

Is it conceivable that a future terrorist organisation might be able to obtain such a device? Unlikely. But if they had the means, then Pyongyang would be the first place to go to get it. Pakistan's ambivalent relationship with terrorist organisations adds to the dangers.

One country where our nuclear weapons concerns had eased is Iran. The nuclear agreement has its weaknesses, especially that it only applies for 10 years. But it is worth having, and Tehran is complying by its technical requirements. If Donald Trump walks from the nuclear deal — as he threatened at the UN last week — then before long he could find he has another North Korea to deal with, this one in the Gulf.

The outlook on nuclear weapons might look grim. But as we showed in the cold war, these issues are manageable with skilful diplomacy and the right investments in defence. We just have to give it the right degree of priority.

When I was at MI6, and before that our negotiator with Iran on its nuclear programme, I was always mindful of the nuclear threat. The only issue that can seriously threaten our way of life must be among our top international security priorities.

<https://www.ft.com/content/02c58f70-9c80-11e7-8b50-0b9f565a23e1>

[Return to top](#)

The American Conservative (Washington DC)

Is It Time For Japan To Go Nuclear?

By Charles Pena

September 26, 2017

Our ally should have its own deterrent against North Korea.

In the wake of North Korea's most recently reported nuclear test, which took many by surprise—because the yield was much larger than most analysts expected and because North Korea claimed it was a hydrogen bomb or a thermonuclear weapon that is the same type that the U.S. and Russia have—Secretary of Defense James Mattis assured Japanese Defense Minister Itsunori Onodera that “the United States’ commitment to defend Japan, including the U.S. extended deterrence commitment, remains ironclad.” To be sure, this is reassuring to Japan. But why does Japan need such a commitment? And, more importantly, why doesn't Japan have an ironclad commitment to defend itself? Certainly, Japan would be better off if it didn't have to depend on the U.S. And America would be better off with a strong, capable ally.

In the aftermath of World War II, there were good reasons for the U.S. to assume the mantle of defending Japan. First and foremost, the U.S. wanted to prevent Japan from becoming an aggressive military power—and the Japanese agreed—as a means to avoid a replay of war in the Pacific. Second, the reality was the Japan had been ravaged by war and—much like America's European allies—needed the U.S. to provide stability and act as a counterweight to the Soviet Union and, to a lesser degree, China, as it rebuilt its economy.

But that was then and this is now.

Today, Japan is the third largest economy in the world (only the U.S. and China are bigger) with a gross domestic product (GDP) of \$4.9 trillion. The Central Intelligence Agency estimates North Korea's economy to be about \$40 billion, which would place it in between Tunisia and Jordan—ranked 86th and 87th, respectively—on the World Bank's list (the World Bank does not include North Korea on its list because it cannot confirm the country's GDP). But with an economy more than 100 times larger than North Korea's, Japan can easily afford to pay for its own defense—and it's long past time for our wealthy ally to shoulder the responsibility of its own national security.

As a move in that direction, the Japanese Ministry of Defense recently requested its largest budget ever for fiscal year 2018—\$48 billion, which is more than North Korea's total economy. North Korea's defense spending is believed to be about \$10 billion, which is somewhere between 20 and 25 percent of its GDP. Just as Japan's economy eclipses North Korea, so does its defense spending—by more than 4-to-1.

Put simply, if a rich country like Japan cannot defend itself against a very poor country like North Korea, there is something very wrong. Especially when Japan's Self Defense Forces (SDF) are considered one of the best militaries in the world. According to John T. Kuehn, a professor of military history at the U.S. Army Command and General Staff College, “Pilot for pilot, ship for ship, Japan can stand toe to toe with anybody.”

What Japan is most worried about, of course, is the threat posed by North Korea's nuclear weapons and ballistic missiles. Their recent defense budget request reflects that concern, with tens of billions of yen (more than \$600 million) for Standard Missile-3 missiles to intercept ballistic missiles in space and Patriot PAC-3 missiles to intercept warheads in their terminal phase inside the atmosphere. At least the Japanese have a willingness to pay for such capabilities, rather than expecting that they should be given to them courtesy of U.S. taxpayers.

But even with missile defense, Japan continues to rely on extended deterrence via the U.S. nuclear umbrella to deter North Korea's nuclear weapons. But whether extended deterrence will work is unclear. Is Kim Jong-un credibly convinced that the United States is prepared to risk Los Angeles for Tokyo? Does the Japanese government believe the U.S. would do so? And, most important, is that a price Americans should pay for a rich ally such as Japan?

Just as Japan is considering amending its constitution to explicitly allow for armed forces and avoid any contradiction between the constitution and Japan's SDF (Article 9 states that "land, sea and air forces, as well as other war potential, will never be maintained"), perhaps it is also time to consider whether the best way for Japan to deter North Korea's nuclear capability is with its own such capability—because the reality is that the only way to deter nukes is with nukes.

While we rightly remain concerned about nuclear proliferation, what is worse: A country like North Korea with a nuclear monopoly able to threaten its neighbors and hold them hostage? Or allowing Japan—a democratic U.S. ally—to have its own nuclear deterrent to offset Pyongyang rather than risking Los Angeles or Seattle to save Tokyo?

Nonproliferation advocates would be aghast about the prospect of more countries with nuclear weapons, but Japan as an effective nuclear counterbalance to North Korea has some precedent. Both India and Pakistan have nuclear weapons and have managed not to vaporize each other. There is some evidence that nuclear weapons have actually had a stabilizing effect on Indian-Pakistani relations, which runs counter to nonproliferation expectations. For example, does the fact that both India and Pakistan have nuclear weapons prevent violence related to the Kashmir dispute from erupting into war between the two countries?

And the reality is that although Japan is a signatory to the Nuclear Nonproliferation Treaty, which prohibits it from having nuclear weapons, it has a "bomb in the basement," with de facto capability to build nuclear weapons since the 1980s when it decided to embark on a nuclear energy program with a plutonium breeder reactor and a uranium enrichment plant. Building an actual nuclear deterrent would not be a huge leap.

The issue isn't whether Japan should have nuclear weapons or not. The issue is whether Japan should take primary responsibility for itself. If it doesn't, then the U.S. will forever need to provide an ironclad commitment to defend an ally who is more than capable of defending itself.

<http://www.theamericanconservative.com/articles/is-it-time-for-japan-to-go-nuclear/>

[Return to top](#)

38 North (Washington, DC)

The Lamps are Going Out in Asia

By Joseph Dethomas

September 25, 2017

Our ally should have its own deterrent against North Korea.

US President Donald Trump's speech to the United Nations General Assembly on September 19 may well come to be viewed as "historic," but not in a good way. This article will leave for others the impact of Donald Trump's and Kim Jong Un's reality TV show rhetoric. But the substance of Trump's speech—including threats to both North Korea and the Iran deal—may have closed any remaining doors to a diplomatic resolution to this crisis surrounding North Korea's nuclear and missile programs. Moreover, Trump's speech and the North Korean reaction seem to have set us on

a path that could very well end in a major war in Asia. The escalating threats and the closing off of diplomatic options by both sides makes it now more likely than ever that President Trump will have to make good on his threat to “utterly destroy” a nation of 25 million people. The strategic consequences of carrying out this threat, even if successful, will be felt for the remainder of this century, largely to the detriment of the United States and the Western World.

Echoes of the Past

Major wars are not created with a single action. They flow from a series of decisions that drive participants towards a sense that no other action but war can extricate them from their predicament. For example, many historians now credit Kaiser Wilhelm II of Germany’s July 2, 1914 telegram to the Austrian government, which gave his ally a so-called blank check to do whatever it wished in the crisis with Serbia, as the fatal step that set the machinery inexorably in motion for the catastrophe of World War I. Trump shares one common and dangerous trait with the Kaiser: both were amateur militarists given to public bluster and adopting an ultra-nationalist bully-boy style of diplomacy, in part to cover up vast weaknesses in their own characters and their lack of understanding of their countries’ true strengths. But neither of these individuals intended to unleash catastrophe. Certainly, the Kaiser would never have sent his blank check if he had known it would result in the fall of his own dynasty, the disappearance of centuries-old empires, the death of millions, and the emergence of Nazism in his country. No doubt, Trump sees himself as a heroic figure standing up to a mad tyrant using rhetoric, economic pressure and, if necessary, military force to break him. He does not see because he does not understand the vast risks he is running for his own citizens, or millions of residents of East Asia.

Why the Alarm?

What could prompt the author to make such apocalyptic historical parallels from what, in the context of the never-ending stream of ill-considered words from this President, was a fairly average speech? First, it was uttered in an unstable, nuclear-armed strategic environment. Second, it confirmed in front of the entire global community that should conflict come, it would be total in nature with the survival of both the North Korean regime and its entire population at stake. Third, the US and North Korea are blind to alternative end states to the one they fear/desire. This is how leaders come to see war as the only choice. Finally, the speech undercut any possibility that North Korea would consider making any concession on its nuclear deterrent by underlining that the US will not keep its word even when it has negotiated an agreement with a hostile government.

Trump’s over-the-top attack on the Iran nuclear agreement in the UN—a body that had fully endorsed that agreement with a unanimous UN Security Council Resolution—undermines his credibility as a negotiating partner for any nuclear agreement with North Korea. If the Iran agreement is trashed, Kim Jong Un would be a fool of the first order to negotiate any reduction in his deterrent with the United States. In other words, in a nuclearized environment in which both North Korea and the US have sound military reasons to want to attack first, Trump informed the North Koreans that he will not be bound by a diplomatic agreement and his military intent is the extinction of the DPRK. He has cornered a vicious animal and told it he intends to kill it and its young. His announcement last week of far-reaching secondary economic sanctions designed to unilaterally impose a complete trade and financial embargo on North Korea is likely to pour gasoline on the fire he set in New York.

The Environment and the Stakes

The strategic environment on the Korean peninsula has been for decades one of tense, but stable, mutual deterrence. The ROK and the US have sufficient forces to halt any attack by the DPRK and have all the long-term political, military and economic advantages that would permit them to

mobilize a devastating conventional military counter-strike that would defeat the North's forces and eliminate the Kim dynasty. Such a conflict might well be a bloody affair, but its outcome would be certain. For at least the last 25 years, no North Korean general could believe that victory would be achieved in an attack on South Korea and each of the heads of the Kim dynasty have known that the US had the capability and intention to make the end of a second Korean War a decisive and final victory for the US and ROK.

Despite the never-ending assertions in Washington that the North Korean regime cannot be deterred, the last 64 years of Korean history demonstrate the contrary. For its part, the DPRK had its own deterrent advantage: the civilian population and economic infrastructure of the greater Seoul metropolitan area. North Korean artillery, tactical rockets, and its SCUD missile force armed with high explosives, chemical and probably biological weapons held the 25 million civilians of the Seoul region hostage as well as the bulk of the economic infrastructure of a major player in the global economy.

Due to a fatal error in North Korean strategic calculation, this environment has been destabilized. Pyongyang has chosen to: 1) add millions of US hostages to its strategy by pressing forward with development of a thermonuclear-tipped ICBM; and 2) craft and test a nuclear war fighting strategy that targets nuclear weapons on key US military assets and facilities which are critical to US and ROK defense planning. Leaving aside whether having American civilians in North Korean nuclear cross-hairs would undercut the faith of our ROK and Japanese allies in US resolve, the US and ROK militaries simply cannot afford to have key air, sea or logistics bases and debarkation points for US ground reinforcements neutralized by a DPRK nuclear first strike—not to mention the military and civilian casualties that would result from absorbing the North's first strike. However effective US and Japanese theater missile defense might be, it is vulnerable to a barrage of missiles and the DPRK has hundreds available for attacks on Japan and South Korea. Any prudent US commander would have strong incentives to preemptively attack North Korea's nuclear and missile capabilities at the outset of a conflict in order to limit the damage to vital US military assets.

The situation is even worse from the North Korean side. North Korea's nuclear and missile capabilities—and even more so its early warning and command and control capabilities for nuclear war—are hopelessly inferior to the US high technology conventional weapons or to its nuclear capabilities. It is unlikely a US conventional strike could totally eliminate North Korea's nuclear capabilities and it almost certainly could not eliminate the threat to the "hostages" in Seoul. But a thorough and well-planned nuclear strike drawing on US strategic forces might well successfully disarm the DPRK and paralyze its command and control.[2] A prudent North Korean commander cannot exclude such a possibility and has to understand his vast numerical and technological disadvantage. His only hope for pursuing his nuclear war fighting strategy is to attack first while he has the assets and command and control capabilities to act. This is publicly stated North Korean nuclear doctrine.

What all this means is that if a mistake, miscalculation or incident sparks war, it is likely to go nuclear very fast.

Mutual Blindness on End States

Both sides seem to have maneuvered themselves psychologically into the belief that war is inevitable unless the other side capitulates to its desired end state. For the DPRK this means that safety can only be achieved if it can target US cities. For the US it means war is inevitable if the DPRK achieves that goal. Senior US Administration officials have already made numerous comments about preventive war. They have begun the usual US psychological preparation for conflict by labeling the prospective opponent evil and mad. And they have given indications that they have agreed on military options that will be brought into play under certain publicly ill-defined

circumstances. It is likely the inner councils of the Administration have already agreed on a set of military actions that will be put into play if Pyongyang is about to field a nuclear-armed missile capable of striking the continental United States before sanctions bring Pyongyang to its knees. This unspoken decision stems from the belief that the United States cannot live for a day under the threat of a single North Korean nuclear weapon capable of reaching major US cities.

It is unlikely that the Trump administration is so blind that it has let itself fall into a completely deterministic logic for the end of this crisis. Certainly they must hope their unilateral trade embargo could increase and speed up economic damage on North Korea to the point that it faces collapse before it can achieve its ICBM goal. Perhaps the Trump Administration believes that behind the scenes Pyongyang is bluffing and is prepared to walk back from the precipice. It would not be the first time Pyongyang changed course when it felt war was getting close. But all of these possibilities are more hopes than a coherent strategy to achieve an acceptable outcome.

The North Koreans seem to see things in just the opposite light. They believe the US plans to use its superior conventional military technology to achieve regime change. In their view, had Saddam Hussein or Col. Gaddafi possessed a viable nuclear deterrent, both dictators and their regimes would still be standing. It believes, mistakenly, that the survival of the Kim dynasty depends on North Korea's ability to hold US cities at risk with nuclear weapons. They probably also believe once they have a viable ability to strike the continental US, they will be able to negotiate their way out of sanctions. Paradoxically, it is thus racing towards the one condition that would cause the US to shake off its six-decades old acceptance of mutual deterrence on the Korean peninsula. President Trump was not wrong in saying Kim Jong Un was on a suicide mission.

Thus, both sides have cast away the idea that they had already achieved the ability to deter the other and blinded themselves to many possible stopping points on this descent into war. History is replete with nuclear weapons states that have found means to stabilize peace and security even in the face of challenges from new entrants to the nuclear club. One need only look at the example of China. When it entered the nuclear club in 1964, Mao was at least as volatile and bloodthirsty a tyrant as Kim is today and China was a much greater threat to US interests than the DPRK is today. Both the US and USSR considered preventive war but other roads were chosen that have benefited all of us breathing non-radioactive air today.

Denuclearizing North Korea is a worthy goal. But it is not worthy of a nuclear war in East Asia—even one the US would win. There are less appealing but acceptable alternatives that would leave US alliances intact and allow the natural advantages of the US and its allies to erode North Korea's hostility over time. The same logic should apply to Pyongyang. It has been remarkably successful at playing off its many neighbors and the United States. It has survived the worst of its economic maladies. The greatest threat to its survival is forcing the US into a war in which it believes its own people's survival is at stake. The DPRK could easily return to its earlier deterrent strategy and survive for decades.

Iran

The Kim regime does not give a fig about the fate of other countries. But it does draw (false) lessons about US actions towards them. How can it not doubt at this point that the Trump administration can be trusted to keep any agreement if that agreement merely annoys the current President? If there is one thing that is consistent about the Trump administration's diplomacy, it is its absolute passion for reneging on agreements. In less than a year the President has already withdrawn from the Trans-Pacific Partnership and Paris Climate Accord and he has practically had to be wrestled to the ground to keep him from doing the same on NAFTA and the Korea-US Free Trade Agreement. Trump's blasting of the Iran nuclear agreement in his UNGA speech is one of many indicators that the President wishes to abrogate that agreement by hook or crook. True, Pyongyang made clear

soon after the Iran agreement was announced that it had no interest in a Korean counterpart agreement. But it will certainly notice if the US abrogates an agreement with another member of President Bush's famous "axis of evil" after that country downgraded its nuclear capabilities and despite the fact that all objective observers agree that it is complying with the agreement. It is hard to find a better way to convince your adversary not to reach an agreement with you than to say "We will break agreements at will. Oh, by the way, we also have plans to utterly destroy your country."

The lamps are going out...

The broad sweep of US and North Korean policy make any non-military outcome to this crisis less and less likely. It is possible but not probable the Kim Dynasty will capitulate to US nuclear demands in the face of economic privation. It is possible the new sanctions will be so effective the North Korean state will collapse under the strain. But this is unlikely in the short term and the long term will not matter given the pace of North Korea's ICBM development efforts. The roads to a negotiated settlement are being blocked by North Korean intransigence and American diplomatic unreliability. Alternatives to war—such as UN sanctions—are being replaced by a unilateral American economic war. Both sides are focused exclusively on their optimal outcome and view alternatives as mortal threats. Any error or misstep in this highly unstable strategic environment could ignite a nuclear first strike. We are not yet at the point of war, but the gears of war are beginning to grind inexorably towards it. The lamps are going out in Asia.

A follow-up article will give the layman some food for thought about war: how it can be made less disastrous and what issues need to be thought through before it is too late.

<http://www.38north.org/2017/09/jdethomas092517/>

[Return to top](#)

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.