



USAF Center for Unconventional Weapons Studies (CUWS) Outreach Journal

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5 May 2017

Featured Item: *“Iran’s Nuclear Program: Status”*. Authored by Paul Kerr, published by the Congressional Research Service; April 27, 2017; 67 pages.

<https://fas.org/sgp/crs/nuke/RL34544.pdf>

Iran’s nuclear program began during the 1950s. The United States has expressed concern since the mid-1970s that Tehran might develop nuclear weapons. Iran’s construction of gas centrifuge uranium enrichment facilities is currently the main source of proliferation concern. Gas centrifuges can produce both low-enriched uranium (LEU), which can be used in nuclear power reactors, and weapons-grade highly enriched uranium (HEU), which is one of the two types of fissile material used in nuclear weapons.

The United States has assessed that Tehran has technological and industrial capacity to produce nuclear weapons, but has not yet mastered all of the necessary technologies for building such weapons. Whether Iran has a viable design for a nuclear weapon is unclear. A National Intelligence Estimate made public in 2007 assessed that Tehran “halted its nuclear weapons program” in 2003. The estimate, however, also assessed that Tehran is “keeping open the option to develop nuclear weapons” and that any decision to end a nuclear weapons program is “inherently reversible.” U.S. intelligence officials have reaffirmed this judgment on several occasions. Director of National Intelligence James Clapper testified before Congress in February 2016 that “[w]e do not know whether Iran will eventually decide to build nuclear weapons.”

Obtaining fissile material is widely regarded as the most difficult task in building nuclear weapons. As of January 2014, Iran had produced an amount of LEU containing up to 5% uranium-235 which, if further enriched, could theoretically have produced enough HEU for as many as eight nuclear weapons. Iran has also produced LEU containing nearly 20% uranium-235; the total amount of this LEU would, if it had been in the form of uranium hexafluoride and further enriched, have been sufficient for a nuclear weapon. After the Joint Plan of Action, which Tehran concluded with China, France, Germany, Russia, the United Kingdom, and the United States (collectively known as the “P5+1”), went into effect in January 2014, Iran either converted much of its LEU containing nearly 20% uranium-235 for use as fuel in a research reactor located in Tehran, or prepared it for that purpose. Iran has diluted the rest of that stockpile so that it contained no more than 5% uranium-235.

Although Iran claims that its nuclear program is exclusively for peaceful purposes, the program has generated considerable concern that Tehran is pursuing a nuclear weapons program. The U.N. Security Council responded to Iran’s refusal to suspend work on its uranium enrichment program by adopting several resolutions that imposed sanctions on Tehran. Despite evidence that sanctions and other forms of pressure have slowed the program, Iran continued to enrich uranium, install additional centrifuges, and conduct research on new types of centrifuges. Tehran has also worked on a heavy-water reactor, which is a proliferation concern because its spent fuel would have contained plutonium—the other type of fissile material used in nuclear weapons. However, plutonium must be

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separated from spent fuel—a procedure called “reprocessing.” Iran has said that it will not engage in reprocessing.

The International Atomic Energy Agency (IAEA) monitors Iran’s nuclear facilities and has verified that Tehran’s declared nuclear facilities and materials have not been diverted for military purposes. The agency has also verified that Iran has implemented various restrictions on, and provided the IAEA with additional information about, its uranium enrichment program and heavy-water reactor program pursuant to the July 2015 Joint Cooperative Plan of Action (JCPOA), which Tehran concluded with the P5+1. On the JCPOA’s Implementation Day, which took place on January 16, 2016, all of the previous Security Council resolutions’ requirements were terminated. The nuclear Nonproliferation Treaty (NPT) and U.N. Security Council Resolution 2231, which the Council adopted on July 20, 2015, comprise the current legal framework governing Iran’s nuclear program. Iran has complied with the JCPOA and resolution. Iran’s Nuclear Program: Status Congressional Research Service Iran and the IAEA agreed in 2007 on a work plan to clarify outstanding questions regarding Tehran’s nuclear program, most of which concerned possible Iranian procurement activities and research directly applicable to nuclear weapons development. A December 2015, report to the IAEA Board of Governors from agency Director-General Yukiya Amano contains the IAEA’s “final assessment on the resolution” of these outstanding issues.

Then Under Secretary of State for Political Affairs Wendy Sherman explained during an October 2013 hearing of the Senate Committee on Foreign Relations that Iran would need as much as one year to produce a nuclear weapon if the government made the decision to do so. At the time, Tehran would have needed two to three months of this time to produce enough weapons-grade HEU for a nuclear weapon. Iran’s compliance with the JCPOA has lengthened this time to one year, according to Clapper’s February 2016 testimony. These estimates apparently assume that Iran would use its declared nuclear facilities to produce fissile material for a weapon. However, Tehran would probably use covert facilities for this purpose; Iranian efforts to produce fissile material for nuclear weapons by using its known nuclear facilities would almost certainly be detected by the IAEA.

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The Independent (London, UK)

US Tests Nuclear-Capable Missile With the Range to Strike North Korea

By Tom Batchelor

May 3, 2017

Projectile blasts off just after midnight from Vandenberg Air Force Base, 150 miles northwest of Los Angeles - the second in a week

The US has test-fired a nuclear-capable intercontinental ballistic missile from a site in California, the second such launch in a week, amid rising tensions with North Korea.

The unarmed Minuteman 3 missile has a range of around 8,000 miles, putting it within striking distance of Pyongyang.

It blasted off just after midnight from Vandenberg Air Force Base, 150 miles northwest of Los Angeles, and delivered a single projectile to a target approximately 4,200 miles away at Kwajalein Atoll in the Pacific Ocean, US Air Force Global Strike Command said.

The test, which took 10 months to plan, was the latest designed to check the readiness and accuracy of a weapon system that forms part of the U.S. nuclear force. The US has about 450 such missiles.

It was the second such launch in seven days from the Central California coastal base. Last week's had been pushed back from the autumn.

Colonel Chris Moss, Vandenberg's 30th Space Wing commander, said of the first test launch that it was "an important demonstration of our nation's nuclear deterrent capabilities".

"These Minuteman launches are essential to verify the status of our national nuclear force and to demonstrate our national nuclear capabilities", he said.

The tests come amid rising tensions between North Korea and the US.

Washington has expressed concern about Pyongyang's nuclear ambitions, and recent missile tests by the North suggest it is making progress toward developing a nuclear weapon capable of hitting the US.

In response, the US has sent warships to the region to deter North Korea from conducting another nuclear test.

Donald Trump said on Monday he might be willing to meet with the country's dictator, Kim Jong-un.

"If it would be appropriate for me to meet with him, I would absolutely, I would be honoured to do it," the President said.

Meanwhile, China has called on all parties in the standoff to stay calm and "stop irritating each other".

"We again urge all relevant parties to remain calm and exercise restraint, stop irritating each other, work hard to create an atmosphere for contact and dialogue between all sides, and seek a return to the correct path of dialogue and negotiation as soon as possible," said Chinese Foreign Ministry spokesman Geng Shuang.

Rising tensions are also pushing Japan to consider dropping its pacifist charter.



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Prime Minister Shinzo Abe said on Wednesday he hoped the first-ever change to the country's 70-year-old pacifist constitution would be enacted by 2020, and that it would enshrine the status of the military.

Under the constitution's Article Nine, Japan forever renounced its right to wage war and banned maintenance of a military, though successive governments have interpreted it to allow a military exclusively for self-defence.

Japanese troops have taken part in international peace-keeping operations, as well as a non-combat reconstruction mission in Iraq from 2004 to 2006.

<http://www.independent.co.uk/news/world/americas/us-nuclear-missile-tests-north-korea-range-reach-pyongyang-california-site-a7715331.html>

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R&D Magazine (Rockaway, NJ)

US Nuclear Weapons Lab to Keep Focus on National Security

By Susan Montoya Bryan

May 3, 2017

Scientists and researchers at the federal government's largest national laboratory are pushing ahead with work related to national security and the proliferation of nuclear weapons as new managers take over New Mexico-based Sandia National Laboratories for the first time in decades, officials said Monday.

Director Stephen Younger discussed the lab's future during a news conference that marked the start of a new contract with National Technology and Engineering Solutions of Sandia, a subsidiary of Honeywell International.

The U.S. Energy Department's National Nuclear Security Administration announced the \$2.6 billion management contract in December. Officials have spent the last few months working on a smooth transition for the lab's thousands of employees and operations.

The bulk of work at Sandia centers on the research, development and maintenance of nuclear weapons, but scientists there also have worked on energy and climate projects.

Younger, who has a background in nuclear weapons, called Sandia's employees the "superheroes of technology."

"Sandia defends the world and provides the opportunity for millions, if not billions, of people to lead peaceful and productive lives," he said.

Younger said his team has centuries of combined experience when it comes to national security issues and while the core mission of Sandia will not change, Honeywell, Northrup Grumman and other partners will be looking for ways to do more work and do it faster. The new lab leadership acknowledged current global conflicts, including nuclear threats by North Korea.



"The government understands the importance of these institutions, and the institutions understand they have to be accountable for the money and the information they're providing. It's a different world today," Younger said.

Lockheed Martin had operated Sandia, located in Albuquerque, for the past two decades and was among bidders that lost out to the Honeywell team.

With an annual budget of close to \$3 billion, Sandia is one of the Albuquerque area's largest employers with more than 10,500 workers. Most are based in Albuquerque, but Sandia also operates sites at Lawrence Livermore lab in California and testing facilities in Nevada and Hawaii.

Its Albuquerque campus spans more than 21 square miles. A recent report by a coalition of local governments found that Sandia's partnership with private organizations through a science and technology park has generated more than \$315 million in economic impact across the state over two years.

Sandia will continue to work with local and small businesses, Deputy Director Dave Douglass said Monday.

<http://www.rdmag.com/news/2017/05/us-nuclear-weapons-lab-keep-focus-national-security>

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US News & World Report (New York, NY)

Nuke Waste Debate: Turn It Into Glass or Encase in Cement?

By Nicholas Geranios

May 4, 2017

A new government report says Congress should consider authorizing the U.S. Department of Energy to study stabilizing some nuclear waste at the nation's largest repository by encasing it in a cement-like mixture instead of turning it into glass logs.

Congress should consider authorizing the U.S. Department of Energy to study encasing much of the nuclear waste at the nation's largest waste repository in a cement-like mixture instead of turning it into glass logs, according to a new report from the U.S. Government Accountability Office.

Doing so before burying the waste would be less expensive than a process called vitrification to turn the waste into the glass logs, said the report issued Wednesday.

The process called grouting might also allow waste at the Hanford Nuclear Reservation in a remote part of southcentral Washington state to be treated more quickly, the report said.

The waste is left over from plutonium production for nuclear weapons, including the bomb dropped on Nagasaki, Japan that led to the end of World War II.

The Energy Department replied that it agreed with the office's recommendations but Washington state officials still believe the best way to safely deal with the waste and protect the environment is by turning it into glass.

"We remain firm in our conviction that vitrification, or glass, is the superior process," said Alex Smith, manager for the state's Department of Ecology's Nuclear Waste Program.



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There have been numerous delays in treating the waste stored in tanks at Hanford. Smith said state officials fear a study on a different way to deal with the waste could "redirect critical funding away from the ongoing work to get treatment processes up and running by 2023."

U.S. Sen. Maria Cantwell, a Washington Democrat, also voiced concerns that launching a new study could delay the work.

"We can't afford to get distracted from the job at hand," Cantwell said.

Hanford has about 56 million gallons (211 million liters) of waste stored in underground tanks until it can be treated for permanent disposal. Some tanks date back to World War II and are leaking.

Another 42 million gallons (159 million liters) of similar waste from nuclear weapons production is stored at the government's Savannah River Site in western South Carolina near Georgia.

The process to encase waste there in the cement-like mixture called grout has been used for small amounts of the waste.

Ground was broken at Hanford in 2002 for a \$17 billion vitrification plant — one of the federal government's most expensive construction projects — to separate much of the waste into high-level and low-level radioactive material.

But the plant's construction has been halted by design and safety concerns. After the highly radioactive waste is immobilized in the glass logs, it would be shipped to a national repository proposed for Yucca Mountain in Nevada which has not been built.

The proposal to study cement-like encasement would only apply to waste with lower levels of radioactivity representing about 90 percent of the Hanford waste.

The Energy Department decided two decades ago to turn Hanford's tank waste into glass logs but the new report said innovations in grouting technology now make that process more attractive.

No tank waste has yet been treated at Hanford despite Energy Department spending of more than \$19 billion, the report said.

<https://www.usnews.com/news/best-states/washington/articles/2017-05-04/report-offers-different-treatment-for-hanford-nuclear-waste>

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Albuquerque Journal (Albuquerque, NM)

New Management Takes the Helm at Sandia National Laboratories

By Olivier Uyttebrouck

May 1, 2017

The new director of Sandia National Laboratories said he thinks a lot about violence, and how to avoid it.

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Maxwell AFB, Alabama

Stephen Younger, 65, took the helm at Sandia on Monday as the lab changed management for only the second time in its history. He spent the day introducing himself and his team to employees and the public.

Monday also marked the end of Lockheed Martin's management of Sandia, which began in 1993.

A career nuclear weapons researcher, Younger said he has a "side career" as an anthropologist and takes a special interest in what leads humans into violent conflict.

"I want to understand, why do groups fight against each other? And what prevents them from fighting?" Younger said after a news conference Monday at the Sandia campus in Albuquerque.

Younger leads a new management entity, National Technology & Engineering Solutions of Sandia, a wholly owned subsidiary of Honeywell International, which won a contract valued at \$2.6 billion annually over 10 years, if all options are exercised.

Honeywell will be the primary contractor at Sandia, along with a team of subcontractors that includes Northrop Grumman Technical Services.

Younger, a former associate director at Los Alamos National Laboratory, promised to continue Sandia's mission of nuclear deterrence, while improving efficiency at the labs.

"We are in what I call a strategic time – that is, a rapidly changing time," Younger said during the news conference.

"Sandia will maintain its traditional flexibility in responding to that somewhat uncertain future," he said. "I think it's going to be an exciting future for the laboratory as we respond to upcoming national needs."

Younger said he expects no reduction in Sandia's 10,500 employee workforce and no "significant expansion, but I do see better utilization with existing resources."

Younger also has promised to make Sandia's weapons life-extension program his top priority.

A key focus for the new management team will be to improve business practices by providing better management support, Younger said.

"The two corporate partners – that is, Honeywell and Northrop Grumman – excel at best business practices and we will be bringing some of those into the laboratory to improve efficiency," Younger said.

"How do we do more faster so that we can have the engineers and the scientists focus on the technical work?" he asked.

The National Nuclear Security Administration took some by surprise in December when it bypassed Lockheed Martin, which had managed the lab since 1993.

Younger replaces former lab President and Director Jill Hruby.

Dave Douglass, the new deputy director at Sandia, said he plans to continue working with existing organizations in New Mexico to transform technology developed at the labs into business opportunities for the state.

Younger said he began working with nuclear weapons in 1982. He designed nuclear weapons from 1982 to 1989 at Lawrence Livermore National Laboratory in Livermore, Calif. He has also headed the U.S. military's Defense Threat Reduction Agency.

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Younger said his role as a nuclear weapons researcher has made him keenly aware of the need to understand conflict avoidance.

"The good news is that human beings are not intrinsically violent," he said. "But in groups, we are prone to violence. So the question is, what prevents that?"

He has written books that include "Endangered Species: How We Can Avoid Mass Destruction and Build a Lasting Peace," published in 2007, and "The Bomb: A New History," a 2009 book about the history and future of nuclear weapons.

"I have made the earth shake, and I have a great appreciation for what we do and what its limitations are," Younger said. "It has to be put in a broad perspective."

<https://www.abqjournal.com/996291/new-management-team-takes-the-helm-at-sandia-national-laboratories.html>

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IAEA (Vienna, Austria)

United States Announces €1 Million Pledge for Modernization of IAEA Nuclear Applications Laboratories

Author Not Attributed

May 2, 2017

The United States announced today a pledge of €1 million to support the modernization of the International Atomic Energy Agency (IAEA) Nuclear Applications Laboratories in Seibersdorf, outside Vienna. These facilities opened their doors in 1962 and play a key role in the peaceful uses of nuclear science and technology to assist countries in areas such as human and animal health, food security and the protection of the environment.

The announcement was made during the first day of the first session of the Preparatory Committee for the 2020 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), taking place May 2–12 in Vienna, Austria. The contribution will go towards the construction of a new Animal Production and Health Laboratory, one of eight laboratories that will be upgraded under the Agency's Renovation of the Nuclear Applications Laboratories (ReNuAL) and ReNuAL Plus initiatives.

IAEA Director General Yukiya Amano, addressing the Preparatory Committee meeting, said the modernization of the eight IAEA Nuclear Applications Laboratories was proceeding well.

"The laboratories train scientists, support research in human health, food and other areas, and provide analytical services to national laboratories," Amano said. "I thank donor countries for their generous contributions and I hope that Member States will continue to provide strong support for further work on this important modernization project."

U.S. Ambassador Robert Wood, the country's Permanent Representative to the Conference on Disarmament in Geneva, said the IAEA plays a key part in helping countries realize the practical benefits of the NPT.



"I am pleased to announce a U.S. pledge of €1 million to support the IAEA's project to renovate its Nuclear Applications Laboratories, in addition to the nearly €8.9 million we have provided to date. This ReNuAL project aims to renew the infrastructure needed to sustain the IAEA's programmes for peaceful uses of nuclear energy. We also urge other IAEA Member States to join us in meeting this year's ReNuAL Plus fundraising goals."

"The U.S. pledge brings us halfway to the funding target of €2 million that we need to reach by June to start building this important laboratory on time and to maximize our cost efficiencies, so it is significant both in terms of its size and timing," said IAEA Deputy Director General Aldo Malavasi, who heads the IAEA's Department of Nuclear Sciences and Applications.

"The IAEA's work in helping countries to apply nuclear technologies to quickly detect and control animal diseases posing threats to food and economic security and to health is increasingly in demand," Malavasi said. "This week, for example, in Seibersdorf the Agency is training 16 veterinary experts from seven Member States in diagnosing Middle East Respiratory Syndrome Coronavirus (MERS-CoV) in camels – a zoonotic respiratory disease that is very dangerous to humans. This contribution is very welcome."

<https://www.iaea.org/newscenter/pressreleases/united-states-announces-eu1-million-pledge-for-modernization-of-iaea-nuclear-applications-laboratories>

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Live Science (New York, NY)

Could the US Stop Nuclear Weapons?

By Tia Ghose

May 2, 2017

With tensions brewing between the United States and North Korea — highlighted by a flurry of failed nuclear missile tests and fighting words by both countries — the possibility of nuclear war seems closer than it has been in years, according to experts.

Though most analysts agree that at this point, North Korea lacks the technical capability to deploy a nuclear missile that could reach American targets, the mere possibility has put people around the world on edge. And in the event that things escalate, is there any way to stop nuclear missiles once they've been fired? [7 Strange Cultural Facts About North Korea]

One option that has been floated — and refloated — over the years, is to somehow create a shield or defense system to protect people from nuclear attacks. From the earliest uses in 1959 of the intercontinental ballistic missile (ICBM), which is designed to deliver nuclear weapons, the U.S. has been working on methods that would protect people from such an attack. Yet decades later, the country still has only a flawed system that most experts believe would not reliably protect Americans against a nuclear attack, said Philip E. Coyle III, a senior science advisor with the Center for Arms Control and Non-Proliferation and the former director of operational tests and evaluation with the Pentagon, who has extensively evaluated missile defense systems.

But why has it taken so long to get a nuclear missile shield up and running? And is there any possibility that this technology might work in the future?



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"This is the hardest thing the Pentagon has ever tried to do, as our nearly 70 years of trying shows," Coyle told Live Science.

First seeds

The first attempts at building a nuclear missile defense program started up almost as soon as intercontinental missiles were invented in the 1950s, though most of those projects were put on hold in 1972, after the U.S. and the Soviet Union signed the Anti-Ballistic Missile Treaty, which limited the number of missiles each side could retain. A number of wacky ideas have been proposed over the years, including Operation Argus, which aimed to create a protective radiation belt above Earth by detonating a nuclear weapon in the atmosphere, and Project Seesaw, which explored using particle beams to zap nukes, according to "The Imagineers of War: The Untold Story of DARPA, the Agency That Changed the World," (Knopf, 2017)

In the 1980s, President Ronald Reagan said he was uncomfortable with "mutually assured destruction" (that is, the idea that both the United States and Russia had enough nuclear weapons to destroy each other in the event of a nuclear war) as the only protection against the U.S.S.R. He pushed for the development of the Strategic Defense Initiative, or the Star Wars program, in which nuclear-powered lasers placed in space would zap nuclear weapons. The program was an expensive flop, in part because the whole concept was too fantastical, said Laura Grego, an astrophysicist and expert on missile defense and space security at the Union of Concerned Scientists. [Top 10 Ways to Destroy Earth]

Challenges to nuclear missile defense

In some ways, the failure of these projects isn't surprising: Intercepting an intercontinental ballistic missile is really hard, Grego said. An ICBM launches, spends 15 minutes traveling through the vacuum of space and then reenters the atmosphere before hitting its target. So an ICBM could be intercepted at just a few points on its journey: when it first launches, once it's out in space, and as it reenters the atmosphere and is zooming toward its target. Each of these approaches has its limitations.

For instance, "the launch phase is a minute to a few minutes long," Grego told Live Science.

That doesn't leave much time for a rocket to intercept and "kill" a nuclear missile, she added. What's more, historical United States rivals, such as Russia and China, have large land masses. They would likely keep their missiles far inland, meaning sea-based interceptors couldn't get to a missile during its launch phase.

So killing a missile early in the course of its flight would require hovering over likely launch sites, Grego said. Early on, the military proposed placing giant Boeing 747s with bomb-killing lasers in the skies above Russia and China.

"Pretty quickly, you can see the operational difficulty with that," Grego told Live Science. "Are you going to have several large 747s just hovering indefinitely for decades, just waiting for something to happen?"

Beyond that, there are other problems with the "launch-phase" approach. If the interceptor doesn't hit exactly the right spot on the missile, the missile "may not quite make the target it was intended. It will fall somewhere else, like Canada, which Canada will not like," Grego said. "You really have to be explicit and target the payload at the tip of the missile."



Using unmanned aerial vehicles has also been as an option, but they lack the firepower to destroy a missile, she added.

Midcourse defense

The second option, and the most viable one, is to intercept the missile during its longest flight course — in space. An advantage of that approach is that, because most U.S. enemies are west of the Pacific, they would all likely program their missiles to take a path above the poles, meaning that just one ground-based interceptor could be placed in Alaska and likely protect the whole country.

But intercepting a missile in space also has its problems.

"The incoming missile is going 15,000, 17,000 miles an hour [24,000 to 27,000 km/h]," Coyle said. "And going that fast, if you miss by an inch, you can miss by a mile."

There's another problem, too: There's no air resistance (or drag) in space. That means a decoy like a balloon that's shaped like a nuclear warhead could travel in the same way as the true warhead, making it difficult for a missile to distinguish the real missile from the decoy. And because balloons are so light, a sophisticated warhead could easily launch 20 or 30 decoy balloons to obscure the path of the warhead, Grego said.

Finally, the last-ditch effort would be to intercept as the missile reenters the atmosphere, before it hits the target. An advantage of this approach would be that air resistance would prevent decoys from distracting a system. On the other hand, "you don't have very much time to defend, because it's rapidly coming toward you, so it's not a workable strategy," Grego said. And jamming the electronics in nuclear warheads with something like an electromagnetic pulse (EMP) would likely not work; the weapons are designed to be robust enough to survive the effects of EMPs from other nuclear weapons nearby, Grego said. [Flying Saucers to Mind Control: 22 Declassified Military & CIA Secrets]

As a result, the military has in recent decades focused on attacking an ICBM during its midcourse, known as ground-based midcourse missile defense. The military developed a prototype under the Clinton administration that saw early success. But under Bush, the military pushed the weapon from an early prototype and rushed it to operational status. Since then, it has missed the target in 9 out of 17 tests, according to the military.

And since 2010, it has missed the target in 3 out of 4 tests.

"The failure in flight-intercept tests is all the more surprising, because these tests are highly scripted to achieve success. If these tests were planned to fool U.S. defenses, as a real enemy would do, the failure rate would be even worse," Coyle said.

What's more, "it counts one of those failures a success if the interceptor hit the target with a glancing [blow] but did not destroy it," Coyle said. "Close only counts in horseshoes and not in nuclear war."

Part of the problem is that the systems were rushed through the engineering process and suffer from design flaws, both Coyle and Grego said. In addition, the military needs to develop additional technology infrastructure, such as radar in different wavelengths, or better satellites to detect missiles, that could do a better job of locating and visualizing the target.

But even if the projects were redesigned from the ground up, with careful thought and the best use of existing and new technologies, some challenges with nuclear defense may be



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insurmountable, Grego said. For instance, so far, no one has come up with a way to solve the problem of nuclear warhead decoys in space, she said.

And focusing on "strategic defense" that can protect American cities half the time may be much more expensive and ultimately more dangerous for the world, compared to using those resources for more effective war-deterrence strategies such as diplomacy, Grego said.

<http://www.livescience.com/58918-why-nuclear-shields-do-not-exist.html>

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The Christian Science Monitor (Boston, MA)

US missile defense: Getting to 'ready' on North Korea threat

By Peter Grier, Francine Kiefer and Jack Detsch

May 3, 2017

By 2020, North Korea could have as many as 100 nuclear-tipped missiles, according to one report. Sen. Dan Sullivan (R) of Alaska is pushing for a more robust defensive missile deployment.

For decades, US presidents have used diplomatic pressure and economic sanctions to try and convince North Korea to abandon its nuclear program. While doing so they have also been working at home on a Plan B: defense.

The Pentagon has been developing a nationwide antimissile program since the early 1990s. The aim is to protect American territory – not from established nuclear powers Russia or China, but any smaller Intercontinental Ballistic Missile (ICBM) arsenals produced by North Korea, or (possibly) Iran.

Now that nascent missile defense faces an important inflection point, as does the overall effort to block Pyongyang's nuclear ambitions. Increasingly it seems a matter of when, not if, North Korea will develop the means to target the continental US with a nuclear-tipped ICBM.

That moment might be reached in three to five years, according to current and former US defense officials. And by 2020, North Korea could have as many as 100 nuclear warheads, according to a 2015 Johns Hopkins University report.

At that point, will US missile defense be adequate for its task? Even supporters describe the current system as more of an advanced prototype than a finished product. It might be able to protect against an initial North Korean nuclear capability, but if Pyongyang establishes and maintains serial production of missiles, today's US defensive capabilities might soon become inadequate.

"We're not willing to accept a strategic relationship of vulnerability to North Korean missiles, in the way we have, de facto, with Russia and China.... This is important. We have to get this right," says Thomas Karako, a senior fellow and director of the Missile Defense Project at the Center for Strategic and International Studies (CSIS) in Washington.

More modest than Reagan's 'Star Wars' dream

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The US has been working on various anti-missile programs almost since the dawn of the ICBM age. In terms of funding and prominence, this effort perhaps reached its apogee with President Reagan's "Star Wars" Strategic Defense Initiative. SDI envisioned a multi-layered system able to target and attack ballistic missiles from launch to warhead descent. Today's deployed system is not nearly as broad as that dream.

The current US missile defense is aimed instead at shielding the nation from nuclear blackmail or terrorism or threats from a rogue state. (Both China and Russia oppose US defenses, saying it is possible they will destabilize the mutual deterrence that currently exists between big nuclear powers.)

On the list of today's "rogue states", North Korea sits at No. 1. The US intelligence community assesses that North Korea is currently in the process of fielding an ICBM capability to strike the American homeland with a nuclear warhead. Such a system hasn't been tested, nor is it clear whether any North Korean ballistic missiles of shorter range have yet been tipped with nuclear warheads.

After all, this is rocket science, meaning very difficult – as Pyongyang's many failed missile tests show.

Defenses from Hawaii

The first line of US ballistic missile defense is a global network of sea-, land-, and space-based sensors to detect and track any launch against American targets.

These range from an ocean-going X-Band radar at Pearl Harbor in Hawaii, to early-warning radars strung across Alaska, Greenland, Britain, and other northern spots, and SPY-1 radars on Navy Aegis missile defense ships at sea. Data is fed to a central fire control system at Schriever Air Force Base in Colorado Springs.

Since 2004, the US has deployed rocket interceptors at Ft. Greeley, Alaska, and Vandenberg Air Force Base in California. Currently there are 36; that number is scheduled to rise to 44 by the end of 2017.

The three-stage interceptors are intended to target missile warheads in the middle of their ballistic course from launch to target. They carry "kill vehicle" warheads of their own, which separate from the launcher and maneuver towards the coasting nuclear warheads. An upgraded Redesigned Kill Vehicle is in the works. Testing won't begin for a few years; deployment is currently scheduled for 2020.

Testing record: 9 of 17 attempts successful

The US has some mobile defense assets that can augment this basic system. The Terminal High Altitude Area Defense (THAAD) is a rapidly deployable battery of interceptor missiles designed to shoot down short- or medium-range ballistic missiles in the final stages of its flight. It is intended to protect defined areas, such as cities or military forces, as opposed to entire countries. The US and South Korea have recently set up a THAAD system on a former golf course in South Korea.

The Navy's Aegis cruisers and destroyers also carry interceptor missiles that are designed to give them the ability to defend regions against short and medium-range missile attack. The Aegis defense has the advantage of easy mobility – but the number of ships is limited, and they sometimes have other missions to fulfill.



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Is this integrated system effective? After all, in essence it is attempting to hit a bullet with a bullet – not an easy thing to do. Since 1997, the payload has destroyed its target in nine of 17 full-blown intercept tests, or just over 50 percent of the time.

Some scientists harshly criticize the US missile defense program, saying that interceptors could be easily spoofed.

The ground-based defense system “is not on a credible path to achieving an operationally useful capability,” charged the Union of Concerned Scientists in a 2016 report on the effort.

But officials of the Pentagon’s Missile Defense Agency and other proponents say the system is a capable one that is being refined to meet a threat which itself is still developing. They say its testing record should be seen in that light.

A Congressional Research Service report on the system drawn up in late 2016 attempts to strike a balance between these points of view.

“Although the [ground-based missile defense] system is praised by senior military leaders and is generally viewed in successful terms, it does have a somewhat mixed flight test record,” writes CRS analyst Steven Hildreth.

Alaskan senator pushes for more robust missile defense

Meanwhile, North Korea grinds ahead with its military programs. That is the military and political reality facing the US, note defense proponents. Holding a nuclear threat over the United States seems a core goal of Kim Jung-Un’s worldview. Is that a situation the US can endure?

“Each of the last four administrations has looked at the North Korean threat and said this is not the sort of thing in which we can live, in a state of vulnerability,” says Dr. Karako of CSIS, a principal author of a new “Missile Defense 2020” report that urges devoting more money and effort to outpacing the ballistic missile threat.

Among other recommendations, the CSIS study urges fielding upward of 80 ground-based interceptors by 2020, and completing readiness efforts studying a possible East Coast deployment site.

Some lawmakers are already on board. Alaska, closer to North Korea than the lower 48 states, could be an early target for attack. Sen. Dan Sullivan (R) of Alaska says that in his view the US needs to significantly step up its missile defense system. But “nobody’s talking about that,” he said in a Monitor interview last week.

The senator, a member of the Senate Armed Services Committee, says he hopes to soon introduce a bipartisan bill to significantly boost America’s ability to shoot down rogue missiles from North Korea or Iran.

Senator Sullivan proposes 28 more interceptors, as well as requiring the military to study having up to 100 interceptors distributed across the country.

Should North Korea successfully develop a nuclear-tipped ballistic missile, “the pressure on the president will be enormous to do something ‘militarily,’” says Sullivan. But if the US has a system that can, with 99.9 percent certainty, shoot down rogue missiles, with the expectation of “massive” US retaliation, then Kim Jong-un will have to “think really hard” about that, the senator says.



"Having a robust missile defense will give the president more options and breathing room," Sullivan contends.

Cyber sabotage?

But here's something the Pentagon doesn't talk about: ramping up investments in interceptor rockets might not be the only US option to blunt North Korean missile development. Secret cyberattacks to disrupt Pyongyang's missile tests might be an option as well.

In February, The New York Times reported that the Trump administration planned to continue work on an Obama-era program that charged the Pentagon with developing hacking tools to disable or misdirect launched North Korean missiles. That capability, if confirmed, could give the Defense Department a Digital Age tool to deal with the rogue state.

"[Missiles] have to be linked to a network and to a computer. That's your entry point," says James Lewis, a senior fellow at the Center for Strategic and International Studies, and a former rapporteur for United Nations cybersecurity talks in 2015. "Breaking into somebody's weapons systems and trying to interfere with their operations, that's just part of warfare now."

Indeed, the US appeared to have expanded its visibility into North Korean computer networks even before the damaging Sony Pictures hack that leaked private emails and the unreleased film *The Interview* in 2014, which the FBI attributed to Pyongyang's hackers.

Classified documents disclosed to the press in 2015 indicated that the National Security Agency, with help from US allies in Asia, penetrated into North Korean networks, including devices and systems used by the country's top hacking teams and spies. The Defense Department could also target North Korea's suspected suppliers, such as Iran, with digital attacks.

But while the Pentagon and other military agencies may be using cyberattacks to probe digitally connected weapons networks, it's not clear that it has been the driving factor in Pyongyang's recent spike in failed missile launches.

Even for elite hackers, targeting North Korea's missile program would be particularly complex. Unlike the Stuxnet computer worm – widely believed to have been developed by the US and Israel – that targeted Iran's central nuclear enrichment facility, a digital attack against North Korea's missile program would have to target multiple test sites and mobile batteries that Pyongyang uses to fire missiles.

"Missiles tend to blow up anyway just given how hard rocket science is," says Adam Segal, a senior fellow at the Council on Foreign Relations. "To do it seconds or minutes after the launch would suggest a kind of pervasiveness in the networks and an all-seeing ability that would be very expensive and very difficult to maintain."

Even optimists about using hacking tools against North Korea's missile program see as one piece of a broader solution – not a silver bullet.

"The question is always probability," says CSIS's Mr. Lewis. "If they shot 100 missiles, you could probably disable some of them. You probably couldn't disable all of them."

<http://www.livescience.com/58918-why-nuclear-shields-do-not-exist.html>

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Salt Lake City Weekly (Salt Lake City, UT)

Inside Dugway

By Dylan Harris

May 3, 2017

A rare tour of Utah's expansive and secretive Army testing facility.

In Utah's West Desert, toxic chemicals are stored beyond a double-locked door inside a fortified lab.

The lab, surrounded by a razor wire fence, is on the Dugway Proving Ground, an 800-acre U.S. Army testing site. Roughly the size of Rhode Island, the complex lies in a sea of sagebrush and cheatgrass about 90 miles southwest of Salt Lake City where pronghorn antelope and wild mustangs are known to graze.

Dugway opened in 1942, giving the military a place to test chemical and biological weapons in the remote desert.

In its 75-year history, the testing site has endured its share of controversy. In the '60s, for example, the death of thousands of sheep were linked to Dugway. And as recently as 2015, the Army mistakenly mailed live anthrax samples to dozens of laboratories in the U.S. and abroad. Conspiracy junkies point to the site's insulation—particularly the secretive Michael Army Airfield—as evidence that the government is hiding something extraordinary; outer space aliens seems to be the preferred theory.

For the Army and its contractors, the site is home to a meteorological lab, a small town with a school, a community center that screens movies and a Subway restaurant. Drone pilots train in its unrestricted airspace.

Then there's the section of the site that tests biological and chemical defense and detection equipment. The first line of defense is forged in a chemical lab.

The horror of a chemical attack was highlighted this year, when ghastly video footage showing the victims of a purported chemical attack in Syria surfaced.

In the hyper-controlled lab, chemicals are used to test the efficacy of life-saving gear such as face masks. To determine whether a particular piece of equipment is going to perform the way it's intended, the Army subjects each item type to rigorous testing.

"We don't take the manufacturer's word that their mask is going to do all that the manufacturer says it is. That needs to be proven out," test officer Andrew Neafsey says, hence the "proving ground" name.

Neafsey works on the lab's Smartman program, which entails a hollowed zinc bust inside a glass case that serves as a chemical test dummy. From Smartman's mouth, air is pumped through an artificial esophagus hose. "One of the main operationally relevant aspects to the Smartman test is that the masks respire, or breathe, while they're being tested," Neafsey says.

On a recent tour, the lab is preparing to test a mask's resistance to a blistering and noxious mustard agent known as HD.

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The face has test tubes sticking out from two sample locations in the nostril and eye socket.

In mask testing, the Army determines how well it will protect against chemical vapor. The Smartman system challenges it with vapor and liquid, then scientists measure what is able to penetrate to the the mask's interior.

Dave Rose is one of the scientists tasked with preparing Smartman.

"The chemical agents are stored under a security system and no one person has access to them," he says. "There's always got to be at least two. We have different locks and keys and combinations to get them out."

Safeguarding themselves with masks, rubber smocks and gloves, a pair of scientists will retrieve the desired chemical and load it into a programmable syringe that doles out drops. Tests typically run for 24 hours. By that time, most of the agent has evaporated.

The entire building is designed so that the air pressure flows from the outer portion inward toward the Smartman testing rooms, and then is sucked upward through carbon and HEPA filters on the roof.

While testing equipment in a "chem-lab" is controlled and confined, "the battlefield is huge," says Gary Millar, engineer branch chief in the test support division.

To get a better sense of how chemicals would function in combat, Dugway runs tests inside two spacious dissemination warehouse buildings, the Active Standoff Chamber and the Joint Ambient Breeze Tunnel.

Millar sees these testing centers as a continuation of the chemical lab. The Smartman test, he says, is one step in a grand testing system, the likes of which exist only in Utah. The Active Standoff Chamber (ASC) and Joint Ambient Breeze Tunnel (JABT) allow the Army to take what they've learned from the lab, then simulate chemical clouds in an open area to observe how that might alter defense and detection equipment.

"When you get out to the field, you've got wind blowing, you've got grass, you've got dust in the air," he says. "That affects what gets detected and you need to understand all that."

When it's not being utilized for testing, the ASC Chamber—a 360 grade stainless steel rectangular box—is empty save for several white fans. At each end, cylindrical tunnels large enough to walk through protrude outward. The floor is made of 4-inch steel slats, covering an airflow cavity underneath.

The entire contraption is inside a warehouse room with exhaust pipes that lead outside to a massive bank of carbon and HEPA filters that block simulants from spilling out into the air.

Because ASC and JABT aren't controlled to the degree the Smartman test is, officers who run tests in these two facilities don't use chemical agents, but rather simulant substitutes. These simulants allow the researchers to document how equipment and detectors stand up in an environment that is both unrestricted, yet contained.

The base utilizes LiDAR technology—a light beam shot into the distance that scatters when it hits a chemical or biological agent. "From that you detect, yes, there is a chemical agent out there and—as accurate as your system can be—what the concentration is," Millar says.

The JABT is a larger and more barren warehouse with an adjustable ceiling where Dugway conducts simulant tests.

Dugway will implement a new electronic test system at the beginning of next year. The system reads sensors out in a testing field and consolidates the data in a single management



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system. Information gathered from electronic equipment is funneled through a computer system that timestamps and logs the figures, and stores the data in one location.

The computerized system also produces a map where analysts can view a field test in real time and adjust it swiftly. Improving the tests, Millar says, is essential to ensure that, if the worst were to happen, soldiers have equipment that will protect their lungs and eyes and detection devices that alert them to danger.

"Everything we do here is for the war fighters," he says. "Should our folks have to get out in the field somewhere, they have the proper equipment to protect them to the maximum extent possible."

<http://www.cityweekly.net/utah/inside-dugway/Content?oid=4359392>

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National Review (Washington, DC)

Syria's Chemical Weapons Show the Limits of Arms Control

By Rebecca Heinrichs

May 4, 2017

Obama's 'deal' with Assad and Putin was not backed by a credible threat of force. Trump paid attention.

Arms control failed to prevent Bashar al-Assad from using weapons of mass destruction against noncombatants, and this should serve as another hard lesson in its limitations.

Civilized nations have sought to abolish the use of chemical weapons (CWs) for nearly a century, as evidenced by the 1919 Versailles Treaty, the Geneva Protocol, and the Chemical Weapons Convention (CWC), which prohibited not only the use of chemical weapons but the production and stockpiling of them as well.

The CWC was negotiated by Presidents Ronald Reagan and George H. W. Bush, who signed the multinational treaty in 1993. The U.S. Senate ratified the treaty during the Clinton administration in 1997, but the objections to it then have proven prescient.

One such objection to it was the inability to truly verify compliance, a necessary condition for any useful agreement, lest the "agreement" serve as a restraint only to the states that are already self-restraining.

Assad's chemical weapons attacks certainly underscore this problem.

After President Obama drew his infamous red line regarding Assad's use of chemical weapons and then failed to persuade the Senate he had planned a prudent military response, Putin and Obama set out to strike a deal with Assad. This deal would entail Assad ratifying the CWC, something Syria had previously refused to do.

But believing that Assad would fully cooperate with inspectors and comply with the CWC was obscenely, willfully naïve. Assad clearly believed that it was in his country's interest to possess and use chemical weapons, and he had just witnessed Obama's unwillingness to quickly and decisively retaliate with force in response to several CW attacks. And,



undoubtedly, he had noted how utterly unable the American president was to persuade senators who were inclined to support using force that he had a clear military plan in response. In other words, Assad knew threats of force were empty, and he did not fear them.

Thus, it was foolish for Obama-administration diplomats to have any measure of confidence that Assad would comply with the treaty when they had provided no credible incentive for him to do so.

Sure, he declared enough of his chemical weapons to please his patron, Putin, who was exploiting the international crisis for Russia's gain. But it never made sense that Assad had suddenly changed his calculus and concluded it was in his interest to forgo all CWs.

This didn't stop Obama officials from asserting that he did, and then they took credit for it.

On July 20, 2014, in a Meet the Press interview, Secretary John Kerry said of Syria, "We struck a deal where we got 100 percent of the chemical weapons out." On August 18, 2014, President Obama said, "Today we mark an important achievement in our ongoing effort to counter the spread of weapons of mass destruction by eliminating Syria's declared chemical-weapons stockpile." Then, remarkably, after subsequent chemical-weapons attacks by the Assad regime, President Obama's national-security adviser, Susan Rice, said on January 16, 2017: "We were able to find a solution that didn't necessitate the use of force that actually removed the chemical weapons that were known from Syria, in a way that the use of force would never have accomplished. . . . We were able to get the Syrian government to voluntarily and verifiably give up its chemical weapons stockpile."

The audacity of these statements became all the more apparent when Tony Blinken, a former deputy secretary of state and former deputy national-security adviser under Barack Obama, told the New York Times, "We always knew we had not gotten everything, that the Syrians had not been fully forthcoming in their declaration."

Raising the obvious question: Why would so many in the administration and those in the arms-control community who advocated for the administration's "diplomatic accomplishment" continue to be enthusiastic about a deal that was only partially followed by the other side?

Their support stems from a belief that arms control is a worthy end in itself, rather than a potential means to achieve peace or mitigate the effects of an enemy's aggression. And it reveals an unrealistic devotion to diplomacy absent the credible threat of military force. Dogged devotion to the 'give peace a chance' slogan, absent the credible threat of force, often leads to war and human suffering.

But, as history shows, this kind of dogged devotion to the "give peace a chance" slogan often leads to war and human suffering. Assad's willingness to flout the Obama-Putin deal certainly demonstrates this in our day.

To be sure: Restraining the employment of chemical weapons is a worthy endeavor.

Chemical weapons, like nuclear weapons, are strategic in nature. Chemical warfare in the First World War led to renewed, immediate efforts to restrain their use even though they killed far fewer people than conventional arms, as is the case in the contemporary Syrian war. But there is more to war than body counts. There is a psychological side to war — a moral side to war, and chemical weapons fall outside the norms of what the most battle-hardened soldiers from civilized nations are willing to accept.



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Chemical weapons cause long, agonizing deaths and, for those who survive them, a life of suffering. Chemical clouds, sometimes a ghoulish color, although often invisible, sweep silently, secretly, and indiscriminately across enemy lines . . . and across homes and schoolyards and hospitals filled with hapless noncombatants: the elderly, women, and children. Death for the victim is often preceded by seizures, foaming at mouth, and other disturbing effects that traumatize the witnessing loved ones. They are, by their very nature, weapons of terror.

The United States should not — cannot — permit their use, lest they become a normalized and conventional weapon of war. And to the Trump administration's great credit, the United States demonstrated what we can and should do if they are used.

Just as verification is a necessary condition to a useful arms-control deal, so is enforcement. For just as President Obama said in his famous 2009 disarmament speech in Prague: "Rules must be binding. Violations must be punished. Words must mean something."

Obama proved unwilling to enforce this sentiment, but his successor certainly seems willing.

The U.S. military strike against Syria's Shayrat Airfield in response to Assad's most recent chemical-weapons attack was carefully planned, limited in its military objective, and brilliantly executed. It seems to have achieved its desired tactical and strategic outcomes. According to a Pentagon spokesman, Captain Jeff Davis, the attack "severely damaged or destroyed Syrian aircraft and support infrastructure and equipment at Shayrat Airfield, reducing the Syrian government's ability to deliver chemical weapons." It also communicated to Syria and every other nation in possession of chemical weapons that the United States has the ability and the will to make it known that any use of chemical weapons is not worth the cost. Assad and those like him certainly don't care about "international norms" let alone notions of what civilized nations deem inherently immoral. But they do care that the world not see them as weak, and they care about their own survival. They do care if we embarrass them by showcasing their weakness, and if we threaten their survival by using force. And the more credible the U.S. threat of force is, the less we will have to use it.

<http://www.nationalreview.com/article/447314/syrian-chemical-weapons-show-diplomacy-limits-we-need-threat-force>

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RT (Moscow, Russia)

Russia slams US arms control report as 'biased', says it ignores Washington's violations

Author Not Attributed

April 29, 2017

The Russian Foreign Ministry has criticized an annual report by the US State Department on global arms control, saying Washington remains in denial about its own misdeeds, while accusing other nations of violations.



The US report, released earlier this month, reviewed several international treaties on arms control, non-proliferation and reduction in which the US has an interest. It stated that the US has been in compliance with its own obligations under those treaties and accused several other nations, including Russia, of deviating from theirs.

In a statement Saturday, the Russian Foreign Ministry said Washington's report was biased and failed to acknowledge issues with America's adherence to its international obligations.

"The US claims it has monopoly rights in assessing other nations' compliance with treaties. Washington does this in a lecturing manner and ignores the established practice for settling points of dispute through corresponding multilateral mechanisms," the statement said.

It also accused the US of bringing "unfounded accusations" and trying to conceal its own violations of international arms control treaties.

In recent years, Russia has received a "growing [amount] of evidence showing that the reasons for such actions by the US by no means consist in a reluctance to burden itself with a difficult and lengthy expert dialogue, but rather lie in something much more serious – in Washington's fear of being exposed as a [state] bringing unfounded accusations against other countries, as well as the US's own violations of international arms control treaties," the Russian Foreign Ministry said.

It went on to say that it was particularly "not the first time, when the US side repeats trite accusations against Russia concerning its alleged violations of the Treaty on Open Skies," adding that the US "keeps quiet about their own violations ... of [this treaty] as well as about violations committed by their NATO allies and other states affiliated with the US."

First signed in March 1992, the Open Skies Treaty entered into force in 2002 and now has 34 states as signatories, including Russia, the US and most European countries. The agreement allows its participants to conduct unarmed surveillance flights over the entire territory of other countries and to gather information about those countries' armed forces to enhance mutual understanding and trust.

In total, the Russian Foreign Ministry listed 11 complaints Moscow has with Washington relating to arms control and nonproliferation. Many of these issues are also mentioned in the American report, but it only states that the US is in full compliance with its obligations.

One such issue is the Intermediate-Range Nuclear Forces (INF) Treaty. The US report states that Washington does not violate it while Russia does. Moscow disagrees, saying that America's drone program, the target missiles for testing ABM technology and the placement of a naval vertical launch system as part of the AEGIS Ashore shield in Eastern Europe are all in violation of the INF, as Russia has repeatedly told the US.

Another one is the agreement between Russia and the US on disposal of plutonium from decommissioned nuclear warheads. Under this agreement both countries pledged to process the material in reactors, rendering them useless for nuclear weapons.

Russia did so, but the US decided that it would be too costly and is instead mixing its plutonium with special dilutant, a process that can potentially be reversed. Russia considers this unilateral decision a violation of the deal and last year suspended it after the US refused to return to the original terms of the agreement.

Russia also sees problems with America's compliance with the Nuclear Non-Proliferation Treaty, saying that the US is stepping outside of it by its nuclear weapons-sharing



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arrangement with European nations. In particular, Moscow complains that the US trains non-nuclear nations to deploy American nuclear bombs stored in Europe.

The Foreign Ministry also challenged the State Department's accusations against Russia on several issues, saying the American report omitted key facts related to the accusations, which challenge the narrative and expose America's complicity in those disputes.

"We are calling on the US again to stop its unseemly practice of mounting ungrounded accusations against other nations, especially amid its own missteps, which only mislead global public opinion," the statement said.

<https://www.rt.com/news/386623-russia-us-arms-control/>

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The Atlantic (Washington, DC)

An Iran-Style Nuclear Deal With North Korea Is the Best America Can Hope For

By Robert Litwak

May 4, 2017

An agreement Trump has called "the worst deal ever negotiated" may offer a route out of the crisis.

Donald Trump, who campaigned for president promising to bring his unique dealmaking skills to gridlocked Washington, assumed office facing a twin choice. On the one hand, he would have to decide whether, as candidate Trump had repeatedly pledged, to undo "the worst deal ever" with Iran that the Obama administration and the world's major powers had negotiated in 2015 to block that country's pathways to the bomb for at least 15 years. Conversely, he would also have to decide whether to do a deal with North Korea to constrain its burgeoning nuclear and missile programs—capabilities that by 2020, if left unchecked, could allow the Kim Jong Un regime to strike the U.S. homeland with a nuclear weapon mounted on an intercontinental ballistic missile (ICBM).

A few days past the 100-day mark, the Trump administration's signals on these urgent nuclear challenges are mixed. On Iran, Secretary of State Rex Tillerson reported to Congress that the Tehran regime "is compliant" with its commitments under the Joint Comprehensive Plan of Action (JCPOA), otherwise known as the Iran deal, but President Trump accused Iran of "not living up to the spirit" of the agreement—a reference to the Islamic Republic's destabilizing regional behavior that is beyond the scope of the nuclear accord. On North Korea, Trump has warned of "a major, major, conflict" with the country if diplomacy fails, while Tillerson has stated that Washington's precondition for any direct negotiations with Pyongyang is precisely the outcome the United States seeks—North Korea's denuclearization.

Yet even as an outcome rather than a precondition of negotiations a full rollback of the North Korean nuclear program to zero warheads is simply not an attainable near-term diplomatic objective. After the United States's regime-changing military interventions in Iraq and Libya, the Kim Jong Un regime is not going to relinquish nuclear weapons viewed as essential to its survival. The Trump administration thus faces the choice of pivoting from

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the unobtainable objective of denuclearization to the alternative—an imperfect nuclear deal that would freeze North Korean nuclear and missile capabilities at their current level. In short, the template for preventing a North Korean nuclear breakout that could directly threaten the United States is the Iran nuclear agreement—the “worst deal ever negotiated.” That deal constrained Iran’s uranium enrichment program to ensure that a latent capability to produce bomb-grade fissile material remained latent. Tillerson, rejecting the Iran nuclear deal as a relevant precedent, has argued that the accord “represents the same failed approach of the past that brought us to the current imminent threat we face in North Korea.”

That “approach” was a twin strategy of pressure and engagement that the Obama administration pursued to bring Iran to the negotiating table and into compliance with its obligations under the Nuclear Non-Proliferation Treaty. The 2013 election of a reformist Iranian president, Hassan Rouhani, who had campaigned on a platform of resolving the nuclear issue to win the lifting of economic sanctions, inaugurated an intensive diplomatic effort culminating in the landmark JCPOA agreement of July 2015.

The Iran nuclear accord was a deal, not a grand bargain. As a deal, the agreement blocking Iran’s access to weapons-grade enriched uranium was transactional, not transformational. U.S. hardliners remain critical of the agreement because of this—that is, the JCPOA does not affect Iran’s destabilizing regional role and its human rights abuses. This persisting divide in the U.S. debate—whether transactional diplomacy that is not transformational should be advanced or rejected—explains how Iran can be simultaneously “compliant” with the JCPOA and not living up to the “spirit” of the accord. The same divide will shape the possibilities for nuclear diplomacy with North Korea.

The North Korean nuclear challenge is a slow-motion Cuban Missile Crisis—one that is playing out not over 13 days, as in October 1962, but over the next few years. North Korea, which tested its first nuclear weapon in 2006, is now on the verge of a strategic breakout—quantitatively (by ramping up its warhead numbers) and qualitatively (through mastery of warhead miniaturization and long-range ballistic missiles)—that directly threatens the U.S. homeland. Unclassified projections of North Korea’s nuclear arsenal by 2020 range as high as 100 warheads, which is, incredibly, approaching half the size of Britain’s.

Tillerson has declared that the Obama policy of “strategic patience” is over, but what follows remains unclear. The military option that Trump administration officials repeatedly affirm is “on the table” runs the catastrophic risk of escalating into a general war on the Korean peninsula. General Gary Luck, the former commander of U.S. forces in Korea, estimated that such a conflict would result in 1 million casualties and entail economic costs of \$1 trillion. If neither using force to eliminate the threat nor acquiescing to a North Korean nuclear breakout is palatable, the remaining “option on the table” is diplomacy.

No domestic political change in North Korea comparable to the election of a reformist president in Iran is in the offing. Nonetheless, Trump, like Obama with Iran, is similarly positioned to take advantage of changes that may make the nuclear problem he faces more amenable to negotiation. Namely, the factor that may permit diplomacy to succeed now when it has failed in the past, is China, which can no longer be a cost-free “enabler” of North Korea through its lackadaisical enforcement of sanctions. A North Korean nuclear breakout would be a game changer not only for Washington, but also for Beijing. China’s calculus of decision must now take into account the adverse strategic consequences of the North’s emergence as a major nuclear power, conceivably including South Korea and Japan reassessing their non-nuclear status. Moreover, as the former State Department official



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Edward Fishman observes, the sanctions “the United States has imposed on North Korea are nowhere near as harsh as those on Iran before the 2015 nuclear deal.” That creates ample scope for the international community, including China, to exert meaningful pressure on North Korea to accept a freeze of its capabilities.

As with the Iran nuclear deal, an agreement with North Korea would be transactional, not transformational.

The political space may now exist for a pivot to serious diplomacy through coercive engagement to prevent a breakout. With North Korea already possessing a nuclear arsenal estimated at a dozen weapons, the Trump administration has no good option. Transactional diplomacy to cap, not fully roll back, the program is the least bad. A freeze would block North Korea from ramping up its arsenal size to 100 weapons by 2020 and preclude the additional testing that the North still needs to master the miniaturization of nuclear warheads and reliable long-range missiles. Tillerson has already taken an essential step for transactional diplomacy by telling the UN Security Council that “we are not seeking regime change.”

A freeze would also meet the core interests of all the major parties. For North Korea, it would leave the Kim family regime in power with a minimum deterrent. For China, a freeze would preserve a strategic buffer state while averting the adverse consequences of a North Korean nuclear breakout. For the United States, such a deal would be characterized as an interim step toward the long-term goal of denuclearizing the Korean peninsula—though in reality, that may never come to pass while the Kim family retains power.

As with the Iran nuclear deal, such an agreement with North Korea would be transactional, not transformational. U.S. hardliners would likely castigate any agreement that leaves the odious Kim regime in power with a capped nuclear arsenal as tantamount to appeasement. Indeed, the Iran deal shows that even an agreement that could stop a regime before it has nuclear weapons at all is an imperfect solution with many detractors because it does not address what they view as the source of threat—the character of the regime. The open question is whether Trump would take such an imperfect nuclear deal. If not, the administration is left with the bad alternatives of bombing or acquiescing.

<https://www.theatlantic.com/international/archive/2017/05/iran-deal-north-korea-jcpoa/525372/>

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International Affairs Review (Washington, DC)

A Multilateral Future for Nuclear Arms Control

By Nathan Powell

April 27, 2017

In 1990 the United States and the Soviet Union had a combined arsenal of 23,000 deployed strategic nuclear warheads. Today, superpower arsenals are vastly reduced, to just 2,186 deployed strategic weapons. When there were only two nuclear powers in a standoff, bilateral arms nuclear arms agreements were sufficient. Yet in today’s world we are faced with Russia, China, India and Pakistan enhancing their nuclear capabilities and North

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Korea's emergence as a nuclear power. Bilateral solutions are no longer sufficient, the future of nuclear arms control needs to be multilateral.

Rapid weapon advances have made multilateral arms control necessary. India and China have both commissioned new classes of ballistic missile submarines and accompanying new missile systems. China has deployed new solid fuel ICBMs. Pakistan is pursuing tactical nuclear weapons. Most worrying of all is North Korea's rapid advance in both nuclear weapons design and missile technology.

These advances reduce U.S. and Russian technological advantages. At the same time, the number of deployed strategic weapons in the hands of the U.S. and Russia are at levels not seen since the 1950's. It is unrealistic to expect the U.S. and Russia to continue to reduce their own arsenals and limit weapons systems development without the cooperation of peer nuclear competitors. Without a multilateral approach, nuclear arms control may not have a future.

Arms control agreements bring with them added benefits. They force participating countries to cooperate in establishing treaty-monitoring arrangements. They open lines of communication between their respective nuclear weapons establishments. These relationships help all sides better understand one another and reduce the chances of miscalculation or accidental nuclear war. Any step that strengthens communication understanding between nuclear powers is welcome.

Perhaps most importantly, a new multilateral nuclear arms control effort can prevent the outbreak of an arms race. This is why we need to bring India and Pakistan into the system of nuclear arms control. Pakistan's hurried development of submarine launch capabilities in response to India's recently commissioned INS Arihant demonstrates the potential of new nuclear capabilities in the region to trigger further weapons development.

The main challenge will be getting the world's other nuclear powers to agree to join such talks. While the UK and France would likely be willing participants, the world's other nuclear powers will almost certainly claim that the U.S. and Russia still possess weapons stockpiles so much larger than theirs that it is unfair to ask them to participate. China has advanced this argument for decades. When China was investing little in its nuclear weapons capabilities, it was a fair point. That era is now over. Technological advances in delivery systems and missile defenses are as important as sheer numbers of weapons in determining strategic stability – and just as important to address through arms control. The Conference on Disarmament is the most obvious venue for such negotiations but Pakistan's blocking of the Fissile Material Cutoff Treaty has prevented the Conference from making progress for years. It may be time to create a new international venue for arms control negotiations where progress can again be made.

The Cold War ended almost three decades ago, but the system of arms control it created lives on. Now it is starting to show its limits. Other nuclear powers are developing new weapons delivery systems and missile defense capabilities as advanced as those possessed by the U.S. and Russia. These technologies have the potential to spark a new nuclear arms race. We need a new system of multilateral arms control to limit competition and foster stability for the sake of a safer future for our children and generations to come.

<http://www.iar-gwu.org/content/multilateral-future-nuclear-arms-control>

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38 North (Washington, DC)

New Developments in North Korea's Ballistic Missile Infrastructure—What Does it Mean for the Future?

By Joseph Bermudez

May 2, 2017

The massive military parades in Pyongyang provide great opportunities to gain insight into North Korea's ballistic missile aspirations, but they are often used to disseminate propaganda and dissemble about its real aspirations and program direction. Rather than parades, infrastructure developments often provide the most accurate indicators and warnings of long-term program directions and capabilities. Some of the more notable examples that have not received the attention they deserved because of an excessive focus on the military parades include:

The construction of two successive missile test stands from 2011-2014, which presaged the development of submarine-launched ballistic missiles (SLBMs) and an experimental ballistic missile submarine;

The suspension, in 2013-2014, of a substantial modernization program at the Tonghae Satellite Launching Ground, which foretold the concentration of limited resources into expanding and developing the Sohae Satellite Launching Station; and

The beginning of construction on a solid rocket engine test facility at Magunpo in early 2013, which anticipated the development of large solid-fuel rocket engines (i.e., for the Pukguksong-1 SLBM and Pukguksong-2 medium-range ballistic missile (MRBM)), smaller air-to-air and air-to-ground class systems and potentially cruise missiles.

More recently, several infrastructure developments may provide new insights into future development in the North's missile programs. Among these are:

Modernization of the vertical engine test stand facility at the Tae-sung Machine Factory: Commercial satellite imagery from February 20, 2016 and April 24, 2017 show that over the past year, a modernization program has begun at the Tae-sung Machine Factory's vertical engine test stand facility. Included among the activities noted here are the placing of a guard position at the entrance, paving of the access road and parking area, construction of a large new paved work yard and the replacing of several support buildings with new structures.

One of these new support structures is suggestive of a horizontal solid rocket engine test stand similar in size and layout to that seen at the Magunpo solid rocket engine test facility. In March 2016, North Korea conducted a nose cone test at this site. That test along with the current modernization of this facility indicates its continuing role in more advanced ballistic missile design and development efforts. Should the new support building prove to be for solid rocket engine development and testing, it supports the analysis of an expanding effort in this field. It may also be related to the acquisition of the second submersible test stand barge and an expansion of SLBM developments to the West Sea area.

Development of a new missile and TEL: On February 12, 2017, North Korea conducted its first test launch of its Pukguksong-2 MRBM from the Iha-ri Driver Training and Test Facility north of Kusong. The choice of the Iha-ri facility was a logical one since the system's transporter-erector-launcher (TEL) is manufactured at the nearby No. 95 Factory. Recent

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commercial satellite imagery shows that during January-April 2017, the North has constructed two temporary launch positions on the south side of the Iha-ri facility. Significantly, satellite imagery from March 14, 2017 shows what also appears to be a TEL with launch tube elevated. The image is taken at a high off-nadir angle, which makes accurate measurement challenging, however, the elevated height of the launch tube is approximately 11-12 meters with a diameter of approximately 3 meters. The overall length of the tube and TEL is approximately 11 meters. These dimensions match neither the Pukguksong-2 TEL with launch tube, nor the new trailer-mounted ICBM TEL's large launch tube. Rather, taken as a whole, these developments suggest: an existing tracked Pukguksong-2 TEL with an, as yet unreported, missile system that has a larger diameter but is shorter than the systems displayed during the recent parade; an existing tracked Pukguksong-2 TEL with a missile training system; or an, as yet unreported, new TEL with a new missile system.

The Iha-ri Driver Training and Test Facility is likely being used for both manufacturer's tests and acceptance trials for the Pukguksong-2 and other TELs. Moreover, Iha-ri is likely being used as a temporary training facility for launch crews.

Additionally, the February 12 Pukguksong-2 test and April 15 parade indicate that the tracked TEL will likely form the basis for the first Pukguksong-2 missile brigade and that tracked or trailer TELs will likely form the basis for larger missile systems under development. The 2017 appearance of several indigenously designed and constructed tracked TELs—based upon a common parent chassis rather than more efficient multi-axle wheeled TELs—strongly suggests that international pressure on China to restrict sale of large, heavy-duty dual-use trucks to North Korea has had an effect upon the North's ballistic missile program.

<http://38north.org/2017/05/missile050217/>

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The Diplomat (Tokyo, Japan)

Under Trump, A Looming North Korean ICBM Threat Brings Alliance 'Decoupling' Fears Back to East Asia

By Ankit Panda

May 2, 2017

How long until Trump wonders out loud why the U.S. should risk American cities for Korean and Japanese cities?

It hasn't been a good week for allied reassurance in Northeast Asia for the United States. I wrote last week about how Trump damaged the alliance with off-the-cuff suggestions that South Korea ought to cough up \$1 billion for the Terminal High Altitude Area Defense (THAAD) system and that the South Korea-U.S. Free Trade Agreement (KORUS) should be renegotiated. Things haven't improved much since then. Despite U.S. National Security Adviser H.R. McMaster's attempts to control the damage over the weekend, Trump likely aggravated matters when he told Bloomberg on Monday that he would be "honored" to meet Kim Jong-un, the authoritarian leader of a regime in North Korea responsible for untold human suffering and rights abuses.



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In all the sound and the fury over the last few days, however, there's one particular remark that I think merits closer scrutiny. The source here wasn't Trump, but McMaster. In his appearance on Fox News to walk back Trump's suggestions for South Korea to pay for THAAD, the U.S. national security adviser was asked about a possibility of a nuclear strike on Seoul. He responded that what "the president has first and foremost on his mind is to protect the American people." That remark might seem innocuous and, indeed, realistic, but it stands to raise serious doubts in both Seoul and Tokyo that American extended deterrence commitments are unreliable amid an ever-growing nuclear threat from North Korea.

This gets at what's known as the "decoupling" problem. During the Cold War, once the Soviet Union flight-tested and incorporated a massive arsenal of intercontinental ballistic missiles, holding the U.S. homeland under constant threat, U.S. allies in Western Europe wondered if Washington's strategic arsenal would serve as a credible deterrent against Soviet adventurism. If strategic escalation would leave the United States at direct risk of suffering a nuclear strike, would Washington commit to Bonn's defense, potentially risking U.S. cities in the process?

These sorts of "decoupling" fears ebb and flow with the times and with the balance of conventional and strategic military power. In the East Asian case, while both Japan and South Korea have factored these issues into their strategic planning, never before has the atmosphere been so primed for a possibility of a major decoupling crisis. Before Trump entered office and started sending signals all over the place on North Korea, we'd seen a range of factors both positively and negatively affecting "decoupling" fears among these U.S. allies.

On the positive side, we had the optics of the "pivot" and "rebalance" to Asia under the Obama administration, an unflinching bipartisan consensus about the value of alliances, explicit assurances from Obama that disputed territories like the Senkaku/Diaoyu Islands fell under Article V of the U.S.-Japan treaty, and regular kinetic shows of U.S. resolve after North Korea missile and nuclear tests.

On the negative side, domestic U.S. political developments, like the imposition of sequestration in 2011, stoked concerns that the conventional balance of power in East Asia would erode from a status quo favoring the United States and its allies sooner rather than later. (Indeed, in the ensuing years, China's breakneck pace of shipbuilding and other forms of military modernization have externally reinforced these concerns.) But broadly speaking, many of these pressures on the two major Northeast Asian alliances were managed and moderated by commitments elsewhere.

Had I written this reflection in February or March, I may have been more sanguine. Despite the lack of clarity back then toward North Korea, given the then-ongoing policy review, Tokyo and Seoul had fallen back on U.S. Defense Secretary Jim Mattis' "reassurance tour." Mattis said the right things, leaving both capitals with a sense that everything would be okay, at least in the short-term. Japanese Prime Minister Shinzo Abe's trip to the United States managed to also steer clear of an alliance crisis.

In the coming months, it'll be worth watching for signs of intensifying "decoupling" pressures in both capitals. In particular, with a week left before South Koreans vote in a new president and the state of the U.S. alliance a hot topic on the campaign trail, whoever wins



will likely face public opinion constraints in how Trump is to be dealt with. And given that a left-leaning candidate favoring greater engagement with Pyongyang may come out on top, the effects may be felt for longer.

In Tokyo too, Abe may find that fears of a “decoupling” will actually abet his ongoing project to make a Japan a more “normal” country when it comes to military matters. But given the immediacy of the threat of a North Korean attack for Japan — authorities kicked off civilian evacuation exercises in a ballistic missile attack scenario earlier this year — short-term insecurity may spike if the Trump administration fails to reassure.

Complicating matters further, the triangular relationship could suffer immensely should “decoupling” fears in either Tokyo or Seoul grow acute. North Korea, for example, may sense an opportunity to exacerbate these pressures, putting Washington in a position where it would have to “choose” between its two allies (who don’t get along that well to begin with).

As a closing thought, if these “decoupling” fears in Seoul and Tokyo reach a new high under Trump, it won’t necessarily spell the end of the United States’ Asian alliances. In particular, total “decoupling” just doesn’t seem realistic — i.e., a North Korean ICBM threat is highly unlikely to coerce the United States into terminating its treaty commitments.

Nevertheless, Trump, in his own special way, has a gift for blurting out deceptively simple comments that lead to a sense of dread. One story from the presidential campaign trail had him asking a foreign policy expert three times why the United States can’t use nuclear weapons, for instance. So, perhaps we’re not far off from him wondering out loud in an interview why the United States, then, should be expected to give up New York, Los Angeles, or Boston for Seoul, Tokyo, or Busan.

<http://thediplomat.com/2017/05/under-trump-a-looming-north-korean-icbm-threat-brings-alliance-decoupling-fears-back-to-east-asia/>

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News.com.au (Surry Hills, Australia)

Monitor group 38 North warns North Korea is ready to conduct another nuclear weapons test

Author Not Attributed

May 4, 2017

North Korean and Chinese media were at loggerheads after Pyongyang’s official news agency issued a rare and stinging denunciation of its chief ally and diplomatic backer.

Beijing should be grateful to Pyongyang for its protection, said a bylined commentary carried by the Korean Central News Agency (KCNA), warning of “grave consequences” if China tests its patience further.

China’s Global Times newspaper retorted that the nuclear-armed North was in the grip of “some form of irrational logic” over its weapons programs.

Beijing and Pyongyang have a relationship forged in the blood of the Korean War, and the Asian giant remains its wayward neighbour’s main provider of aid and trade.



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But ties have begun to fray in recent years, with China increasingly exasperated by the North's nuclear antics and fearful of a regional crisis. North Korean leader Kim Jong-Un has yet to visit Beijing, more than five years after taking power.

The rival texts are a sign of the level to which ties between the two have deteriorated. KCNA regularly carries vivid denunciations of the US, Japan, and the South Korean authorities, but it is rare for it to turn its ire on China.

Beijing regularly calls for parties to avoid raising tensions -- remarks that can apply to both Washington and Pyongyang -- and in February it announced the suspension of coal imports from the North for the rest of the year, a crucial foreign currency earner for the authorities.

Chinese state-run media have called for harsher sanctions against the North in the event of a fresh atomic test, urged Pyongyang to "avoid making mistakes", and spoken of the need for it to abandon its nuclear programmes.

The KCNA commentary denounced the People's Daily, the official mouthpiece of the Chinese Communist party, and the Global Times, which sometimes reflects the thinking of the leadership, as having "raised lame excuses for the base acts of dancing to the tune of the US".

Chinese suggestions that the North give up its weapons crossed a "red line" and were "ego-driven theory based on big-power chauvinism" said the article, bylined "Kim Chol" -- believed to be a pseudonym.

"The DPRK will never beg for the maintenance of friendship with China, risking its nuclear programme which is as precious as its own life," it said, referring to the North by its official name, the Democratic People's Republic of Korea.

Pyongyang had acted as a buffer between Beijing and Washington since the Korean War in the 1950s and "contributed to protecting peace and security of China", it said, adding that its ally should "thank the DPRK for it".

Beijing should not try to test the limits of the North's patience, it said, warning: "China had better ponder over the grave consequences to be entailed by its reckless act of chopping down the pillar of the DPRK-China relations."

'NATIONALISTIC' PASSION

In its response Thursday, the Global Times -- which can sometimes stridently espouse what it sees as China's interests -- dismissed the KCNA article as "nothing more than a hyper-aggressive piece completely filled with nationalistic passion".

"Pyongyang obviously is grappling with some form of irrational logic over its nuclear programme," it added.

Beijing "should also make Pyongyang aware that it will react in unprecedented fashion if Pyongyang conducts another nuclear test", it said.

"The more editorials KCNA publishes, the better Chinese society will be able to understand how Pyongyang thinks, and how hard it is to solve this nuclear issue," the Global Times said.

Washington is meanwhile pushing Beijing -- which says its influence is less than believed -- to put more pressure on Pyongyang.



US Secretary of State Rex Tillerson last week warned the UN Security Council of “catastrophic consequences” if the international community -- most notably China -- failed to pressure the North into abandoning its weapons programme.

Chinese Foreign Minister Wang Yi brushed aside Tillerson’s comments, saying that “the key to solving the nuclear issue on the peninsula does not lie in the hands of the Chinese side”.

CHINA: GET OUT OF N KOREA

CHINA has called for all of its citizens to return from North Korea immediately as a US citizen is detained for allegedly trying to overthrow the country’s regime.

The Korea Times reports that the Chinese embassy in North Korea began advising Korean-Chinese residents to return to China.

A Korean-Chinese citizen told Radio Free Asia he was advised to ‘stay a while’ in China, and stated: ‘The embassy has never given such a warning. I was worried and left the country in a hurry.’

But he said most Chinese citizens in North Korea had opted not to heed the warning.

It comes as North Korea confirmed the detention of another American citizen for alleged acts of hostility aimed at overthrowing the country.

Kim Sang Dok, or Tony Kim, an accounting instructor at Pyongyang University of Science and Technology, was “intercepted” at Pyongyang International Airport on April 22, according to the Korean Central News Agency.

It said he was being detained while authorities conduct a detailed investigation into his alleged crime.

The school’s chancellor Park Chan-mo and the Swedish Embassy in Pyongyang earlier gave the information about Mr Kim’s detention but couldn’t provide the reason for his arrest.

He is now the third American being detained in North Korea.

The other US detainees are Otto Warmbier, serving a 15-year prison term with hard labour for alleged anti-state acts, and Kim Dong Chul, serving a 10-year term with hard labour for alleged espionage.

IMAGES SHOW RESUMPTION AT NUCLEAR SITE

Meanwhile satellite images indicate activity has resumed at North Korea’s nuclear test site, US-based analysts said Tuesday, as tensions remain high over fears of an sixth atomic test by the reclusive state.

Images of the Punggye-ri site captured on April 25 appear to show workers pumping out water at a tunnel believed to have been prepared for an upcoming nuclear test, monitoring group 38 North said.

It also noted that a large number of personnel were seen throughout the facility, with some groups possibly playing volleyball, in what is very likely a propaganda scene.

“It is unclear if this activity indicates that a nuclear test has been cancelled, the facility is in standby mode or that a test is imminent,” said the researchers from the US-Korea Institute at Johns Hopkins University.

Workers were also observed playing volleyball at the guard barracks and two other areas at the site in satellite pictures taken on April 19 and 21.



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38 North said the latest images were “unusual and almost assuredly a component of an overall North Korean deception and propaganda effort” and the result of media reporting on the earlier volleyball sightings.

North Korea is on a mission to develop a long-range missile capable of hitting the US mainland with a nuclear warhead, and has so far staged five nuclear tests, two of them last year.

Punggye-ri is a complex of tunnels and testing infrastructure in the mountains in the northeast of the country.

38 North said last month that Punggye-ri was “primed and ready” to conduct a test, amid mounting speculation that Pyongyang would act to coincide with major anniversaries including the birthday of regime founder Kim Il-sung.

A nuclear test has yet to happen, but North Korea’s failed ballistic missile launch last week marked the hermit state’s latest show of defiance.

On Monday it said it would carry out a nuclear test “at any time and at any location” set by its leadership.

US President Donald Trump said this week he would be “honoured” to meet North Korean leader Kim Jong-un under the right conditions, dialling down earlier threats of military action.

Washington is now exploring options at the UN Security Council to ramp up pressure on the North, with diplomats saying it was in discussion with China on possible sanctions.

Over the past 11 years, the Security Council has imposed six sets of sanctions on Pyongyang, including imposing a cap on coal exports among other measures in November.

<http://www.news.com.au/world/asia/monitor-group-38-north-warns-north-korea-is-ready-to-conduct-another-nuclear-weapons-test/news-story/d3504fd695e52c53f1dcc8aaeb02e88>

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The Washington Free Beacon (Washington, DC)

US Commandos Set to Counter North Korean Nuclear Sites

By Bill Gertz

May 3, 2017

Neutralizing Pyongyang’s nuclear, chemical arms warfighting priority, SOCOM commander says

U.S. special operations forces are set to conduct operations against North Korean nuclear, missile, and other weapons of mass destruction sites in any future conflict, the commander of Special Operations Command told Congress Tuesday.

Army Gen. Raymond A. Thomas stated in testimony to a House subcommittee that Army, Navy, and Air Force commandos are based both permanently and in rotations on the Korean peninsula in case conflict breaks out.

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The special operations training and preparation is a warfighting priority, Thomas said in prepared testimony. There are currently around 8,000 special operations troops deployed in more than 80 countries.

"We are actively pursuing a training path to ensure readiness for the entire range of contingency operations in which [special operations forces], to include our exquisite [countering weapons of mass destruction] capabilities, may play a critical role," he told the subcommittee on emerging threats.

"We are looking comprehensively at our force structure and capabilities on the peninsula and across the region to maximize our support to U.S. [Pacific Command] and [U.S. Forces Korea]. This is my warfighting priority for planning and support."

Disclosure of the commander's comments comes as tensions remain high on the peninsula. President Trump has vowed to deal harshly with North Korea should another underground nuclear test be carried out. Test preparations have been identified in recent weeks, U.S. officials have said.

Trump said on Sunday that China appears to be pressuring North Korea but that he would be upset if North Korea carries out another nuclear test.

"If he does a nuclear test, I will not be happy," he said on CBS Face the Nation. Asked if his unhappiness would translate into a U.S. military response, Trump said: "I don't know. I mean, we'll see."

Gen. Thomas' testimony did not include details of what missions the commandos would carry out.

A spokesman for the Special Operations Command referred questions about potential operations in Korea to the Pacific Command.

Special forces troops would be responsible for locating and destroying North Korean nuclear weapons and missile delivery systems, such as mobile missiles. They also would seek to prevent the movement of the weapons out of the country during a conflict.

Additionally, special operations commandos could be used for operations to kill North Korean leaders, such as supreme leader Kim Jong Un and other senior regime figures.

Special operations missions are said by military experts to include intelligence gathering on the location of nuclear and chemical weapons sites for targeting by bombers. They also are likely to include direct action assaults on facilities to sabotage the weapons, or to prevent the weapons from being stolen, or set off at the sites by the North Koreans.

A defense official said U.S. commandos in the past have trained for covert operations against several types of nuclear facilities, including reactors and research centers. Scale models of some North Korean weapons facilities have been built in the United States for practice operations by commandos.

The most secret direct action operations would be carried out by special units, such as the Navy's Seal Team Six or the Army's Delta Force.

Thomas said the command in January took over the role of coordinating Pentagon efforts to counter weapons of mass destruction from the Strategic Command. The mission includes stopping the spread of weapons of mass destruction and dealing with the aftermath of such weapons' use.



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North Korea is believed to have around 20 nuclear devices and is developing nuclear warheads small enough to be carried on long-range missiles. It also has stockpiles of chemical weapons and biological warfare agents.

Many of North Korea's nuclear facilities are believed to be located underground in fortified locations spread around the country.

The last rotation of special operations forces to South Korea took place in February when parts of the 1st Special Forces Group (Airborne) and the 75th Ranger Regiment joined South Korean troops for training.

The training took place in mountainous parts of South Korea in a bid to simulate the rough terrain commandos would experience during operations in North Korea. Other training took place on the seas.

Gen. Thomas, in his testimony, identified North Korea as one of five "current and enduring" military threats outlined in a new military strategy produced by Marine Corps Gen. Joseph Dunford, chairman of the Joint Chiefs of Staff.

The four other threats are terrorism, Russia, Iran, and China.

Asked about the new strategy, a Joint Chiefs of Staff spokesman said the latest national military strategy is secret. "A classified [National Military Strategy] will make it more difficult for adversaries to develop counter-strategies and also enables the chairman to give the best military advice to the president and secretary of defense," Navy Capt. Greg Hicks said.

The command "has recently focused more intently on the emerging threat that is of growing concern to us as well as most of our DoD teammates—the nuclear threat of an increasingly rogue North Korea," Thomas said.

"Although previously viewed as a regional threat, North Korea's relentless pursuit of nuclear weapons and intercontinental ballistic missiles, facilitated by a trans-regional network of commercial, military, and political connections, make it a threat with global implications," the four-star general added.

South Korea's special operations forces are said to be highly trained but lack the advanced equipment used by American commandos, such as stealth helicopters and aircraft as well as other high technology and advanced weaponry.

A Pentagon report on North Korea's military published in February 2016 states that North Korea continues to advance its nuclear program.

The North Koreans announced in September 2015 that the nuclear facilities at Yongbyon including a uranium enrichment plant and a reactor that were upgraded for the purpose of building nuclear forces, the report said.

Pacific Command commander Adm. Harry Harris said in congressional testimony last week that North Korea is an immediate threat to the security of the United States and the Asia Pacific region.



"With every test, Kim Jong Un moves closer to his stated goal of a preemptive nuclear strike capability against American cities, and he's not afraid to fail in public," Harris said.

<http://freebeacon.com/national-security/us-commandos-set-counter-north-korean-nuclear-sites/>

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The Independent (London, UK)

Russia has hidden nuclear bombs ready to detonate along US coastline, says former Kremlin spokesman

By Will Worley

May 2, 2017

Expert says outlandish claims are 'political warfare'

A Russian military expert has claimed Moscow has been "seeding" nuclear bombs off the US coastline.

The Kremlin has dismissed the claim as "strange", while an independent expert referred to it as an act of "political warfare".

Viktor Baranetz, a former colonel and defence ministry spokesman, told Komsomolskaya Pravda Russia was "quietly 'seeding' the US shoreline with nuclear 'mole' missiles".

The measures - which have not been proven - were "asymmetrical responses" to massive US defence spending, Mr Baranetz said.

They "dig themselves in and 'sleep' until they are given the command," he told the newspaper.

He added: "Oh, it seems I've said too much. I should hold my tongue. In short, we have something to provide an 'asymmetrical' (and cheaper) response to the Americans."

The interview was translated by the Middle East Media Research Institute.

The Kremlin was quick to dismiss the remarks, calling them "strange".

"I would suggest that you not take newspaper reports like this seriously," government spokesman Dmitry Peskov said.

But according to James Nixey, head of the Chatham House Russia and Eurasia programme, the outlandish claim was just another episode in the "hybrid war" which he said exists between Russia and the West.

"We are at war," Mr Nixey told The Independent. "There's no tanks, no shooting, no one's dying right now. But Russia and the West aren't just not getting on, there is a fundamental clash of interests, values and ambitions."

Moscow realises using the military is no longer the best way of achieving its aims, Mr Nixey said, and will use a number of methods in its place. He explained that while Russia will employ methods such as cyber-attacks, energy manipulation or bribery, the nuclear option remains the "ace in the pack".

"Russia ebbs and flows its nuclear rhetoric on a frequent basis – through its media, spokespersons and even President – there are 'constant reminders' that they are a nuclear



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power," Mr Nixey said. He said the message could also be deployed through less official means, such as in journals or at conferences.

While Russia's status in economic or political terms may be declining, Mr Nixey said its nuclear weapons give it a sense of "superpower parity", which can be played down when events are going well or escalated when "Trump isn't playing ball".

"This is another flag they are waving to try to ensure the US becomes more acquiescent," Mr Nixey said. "It's political warfare."

<http://www.independent.co.uk/news/world/europe/russia-nuclear-weapons-seeding-us-coastline-kremlin-defence-spokesman-putin-donald-trump-missiles-a7713061.html>

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Sputnik (Moscow, Russia)

Russia Continues to Limit Nuclear Weapons as NATO, US Seek Military Expansion

Author Not Attributed

May 3, 2017

The NATO-led militarization of Europe is increasing the risk of armed conflict, Jerry Sommer of the Bonn International Center for Conversion (BICC), a peace and conflict research center, told Sputnik Deutschland.

Instead of reinforcing its military presence in Europe, the US and NATO should engage in dialogue with Russia, Jerry Sommer of the Bonn International Center for Conversion (BICC), a peace and conflict research center, told Sputnik Deutschland.

"I don't see anybody threatening the NATO states. I see a need to discuss disagreements between Russia and NATO, and Germany as well, and to solve them through honest negotiation. However, the main reaction of our government, or the governments of NATO countries as a whole, is to encourage higher defense spending, aimed against Russia," Sommer said.

"Some have even gone so far as to demand that European NATO members should have their own nuclear weapons. This is completely counter-productive and only increases the danger of escalation."

Under the Obama administration, the Pentagon stationed extra NATO troop battalions in the Baltic States and Poland; the organization is currently preparing to establish an anti-missile shield stretching from the Black Sea to the Baltics.

An Aegis Ashore ballistic missile defense system was activated in Romania last May and the US is constructing a second system in Poland.

Sommer said that the expansion of NATO military capacity in Europe is not a priority for the Trump administration and its suspension could become a turning point that ushers in more cooperation with Russia.

"The anti-missile defense system in Poland is not particularly important for Trump because it is not intended to protect the USA. For Trump and the Republican establishment, the anti-



missile defense of US territory is much more important. If the European NATO countries were to argue for the suspension or end of this program, this would open up the possibility of further arms control agreements with Russia."

Commenting on Donald Trump's first 100 days in power, Sommer said that the US bombing of a Syrian airbase on April 7 is a worrying sign that the President will continue to pursue an interventionist US foreign policy in spite of his pre-election promises.

"This a pattern which the US has followed for decades – if they think there is a danger they bomb it, like they did a pharmaceutical factory in Khartoum (Sudan) in 1998 because they thought al-Qaeda was using it. This is something Obama and Hillary Clinton had been discussing doing for many years, and now Trump decided to do it."

"I am really not sure how serious these hopes (for a non-interventionist foreign policy) were for him. It can't be said conclusively whether, for example, he will improve the relationship with Russia during his term in office. The prospects have also deteriorated because it's not possible to see a desire on his part to restrict armaments. For example, he doesn't want to extend the New START agreement."

"It would certainly be a good thing if Russia also actively encouraged and proposed an armament control deal for Europe, as well as for nuclear weapons, which might improve the prospects (for non-proliferation)," Sommer said.

US President Donald Trump has criticized the new strategic arms limitation treaty (New START) between the US and Russia which entered into force in 2011. The agreement sets limits on nuclear armaments and ballistic missiles which must be met by February 5, 2018.

In February, Trump told Reuters that New START is a "bad deal," raising the issue of whether the US President will seek to renegotiate the agreement.

On Tuesday, the director of the Russian Foreign Ministry's Department for Non-Proliferation and Arms Control, Mikhail Ulyanov, said that Russia is continuing to implement the 2010 START treaty as scheduled.

"Despite the fact that international climate could be more favorable, Russia continues to take specific measures to reduce its nuclear arsenal," Ulyanov told the Preparatory Committee for the 2020 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons.

"We intend to reach the agreed levels by February 5, 2018. This brings us to the point where all states with nuclear military capabilities must join the disarmament process," Ulyanov said.

<https://sputniknews.com/world/201705031053232265-russia-us-nato-nuclear-weapons/>

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East Anglian Daily Times (Ipswich, UK)

BBC documentary Britain's Nuclear Bomb: The Inside Story to reveal Orford Ness's secret military history

By Andrew Hirst

May 3, 2017

For 70 years along a shingled strip of Suffolk's coast, scientists battled in global race for military might.

From early experiments in aerial warfare through the heightened tensions of the atomic age, Orford Ness played a pivotal – though little known – role in furthering advancements in weaponry technology.

Today, the desolate landscape is a natural wilderness once again, with rare birds roosting in abandoned research buildings.

But the legends of the past live on. And tonight a BBC documentary will shed new light on Orford Ness's role in atomic warfare.

Britain's Nuclear Bomb: The Inside Story airs on BBC Four at 9pm with the story of how a dummy device was being flown to the Suffolk coast in the early 1950s when it came loose over Dorking in Surrey.

A project engineer said it was dropped in the Thames estuary, where it remains to this day.

The programme, which features interviews and newly released footage of atomic tests, offers a rare glimpse into a shady area of military history.

Of all the secretive goings-on, those at Orford Ness, are perhaps most shrouded in mystery.

In his foreword to Paddy Heazell's definitive book *The Hidden History of Orford Ness*, Dick Strawbridge said while the stories of Bletchley Park and Bawdsey Manor have been told, Orford Ness "has held out".

Its remote location made it well-suited for the top secret experiments held there - and ensured they remained so.

Mr Heazell's book looks at its role in the three great conflicts of the modern age - the First and Second World Wars and the Cold War.

Intriguing stories about the site's connection with earthquake bombs and post-Project Manhattan nuclear ballistics tests give a flavour for the significance of the work.

While today's military equipment offers laser-guided precision at the touch of a button, the early experiments in what was then an entirely new chapter of warfare were a far more ramshackle affair.

Photographs and eye-witness accounts reveal an approach to aerial warfare so basic it verges on the comical.

The first bombs had no sophisticated release mechanism; they were simply thrown from the plane's cockpit.



As lead ranger for the National Trust at Orford Ness, David Mason explained, the early experiments involved as much guesswork and daredevil spirit as they did scientific expertise.

"It was all pretty hazardous, seat-of-your pants kind of stuff," he added.

"Not quite back of a fag packet, but I think trial and error played a big part in it."

Its first involvement in military activity began soon after the War Office agreed its £13,500 purchase in 1913.

The 2,000 acre site was prepared as an air strip, with the first squadron setting off for manoeuvres in Ireland the following year.

After the First World War broke out, the Ness took on a more experimental role, with tests on bombing, aerial photography and later on the use of machine guns and parachutes. Much of the work was fraught with danger and several young men lost their lives.

The experiments continued throughout the war and beyond through "lethality and vulnerability" trials, which sought ways to destroy enemy aircraft more efficiently.

Eminent figures present around this time and into the Second World War included Sir Henry Tizard, a scientist who worked with Robert Watson-Watt on radar, and Professor Bennett Melvill Jones, who went on to become chairman Aeronautical Research Committee.

The term "boffin" was coined at Orford Ness during the Second World War as a term of appreciation for the scientists who worked with the military.

Their work included the development of radar, which Mr Mason said was initially intended as a "death ray", as well as research into the accuracy of bombing, which left the ness's surface pitted with craters and plagued with unexploded ordnance for years to come.

Bombing ballistics took on a new significance with the coming of the atomic age, with the Ness again playing a pivotal role.

Britain had contributed to the Manhattan Project, which produced the atomic bombs dropped on Japan. But post-war, the USA was less keen to co-operate over its nuclear programme, leaving Britain to "go it alone".

From 1954, Orford Ness was a major player in Britain's nuclear deterrent. The Atomic Weapons Research Establishment took over more than half the site. It created a research facility to test the ballistics of bombs when dropped and the elaborate trigger mechanisms needed to ensure they detonated.

The Cold War era also saw the Cobra Mist radio research station, developed in 1967 in partnership between the Ministry of Defence and the USA.

By 1972, however, the ness's military role was drawing to a close and it began to fall into decline.

The National Trust moved in around 1993, with an initial focus on establishing a nature reserve.

However, Mr Mason said the trust had also looked to develop the site's history, including through the creation of an audio archive.

Much of the charm, he says, is the combination of the site's intriguing military history and its environmental accolades as the largest shingle spit in Europe and a site of special scientific interest.



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"The contrast between this military history and the way nature has now taken over is a fantastic process," he said.

"Although these building are in decline now, they have become nesting sites for rare birds."

How did it affect the local community?

Despite the secrecy surrounding Orford Ness's military history, intriguing tales have emerged from the local community.

Orford Museum chairman Michael Flint's relatives were in the village around the time of the first nuclear ballistics tests when he says they were advised by police to stay in their homes because a prisoner had escaped.

"That night, they came across the river with two or three vehicles towing a long trailer behind," he added.

"The rumour that was circulated subsequently was that it was a nuclear device."

He said there was an "extraordinary" level of secrecy about what went on. "It had been going on for so long that there wasn't any grumbling," he added.

In fact, the military presence was seen by many as an economic boost, bringing visitors to guest houses and local pubs

Others, such as the German prisoners of war and Chinese labourers used to maintain the site, integrated less.

<http://www.eadt.co.uk/news/bbc-documentary-britain-s-nuclear-bomb-the-inside-story-to-reveal-orford-ness-s-secret-military-history-1-5000330>

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ITV News (London, UK)

Jon Ashworth says Labour 'prepared to use nuclear weapons' after grilling from Piers Morgan

Author Not Attributed

May 3, 2017

Labour would be prepared to use nuclear weapons in retaliation or in a pre-emptive way, the shadow health secretary has said after being grilled by TV host Piers Morgan.

Jonathan Ashworth's assurances came just one day after shadow home secretary Diane Abbott refused to give a yes or no answer when quizzed on Good Morning Britain (GMB).

When asked repeatedly by Piers Morgan if Labour would be prepared to use nuclear weapons, Mr Ashworth said a Labour government "would use our nuclear armouries if that's the advice we were getting from the military experts".

However, Mr Ashworth's answer came after repeated questioning by Mr Morgan who first replied: "I'm trying to offer you the reassurance that I think you're looking for, that a Labour government would take the decisions necessary to protect this country."



Later telling the breakfast show: "We would take the appropriate military advice in the circumstances and do what is appropriate and necessary."

However, after being pressed by Mr Morgan if Labour would "fire back" if attacked by nuclear weapons, Mr Ashworth cautioned: "The responsible thing in this situation is to not speculate about hypotheticals."

The 38-year-old then went on to confirm: "I am giving you the reassurance that we would do what is necessary."

"I am giving you the reassurance that we are prepared to use our nuclear weapons, of course we are."

"We will never compromise on the safety of this country, we will do what is necessary."

Asked again by Mr Morgan, Mr Ashworth clarified: "Of course we would do what we have to do in those circumstances."

"Of course we would use our nuclear armouries if that's the advice we were getting from the military experts."

<http://www.itv.com/news/2017-05-03/labour-prepared-to-use-nuclear-weapons/>

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BBC News (London, UK)

Syria government 'producing chemical weapons at research facilities'

Author Not Attributed

May 4, 2017

Syria's government is continuing to make chemical weapons in violation of a 2013 deal to eliminate them, a Western intelligence agency has told the BBC.

A document says chemical and biological munitions are produced at three main sites near Damascus and Hama.

It alleges that both Iran and Russia, the government's allies, are aware.

Western powers say a Syrian warplane dropped bombs containing the nerve agent Sarin on an opposition-held town a month ago, killing almost 90 people.

The United States launched a missile strike on a Syrian airbase in response to the incident at Khan Sheikhoun, which President Bashar al-Assad says was faked.

The intelligence document obtained by the BBC says Syria's chemical weapons are manufactured at three sites - Masyaf, in Hama province, and at Dummar and Barzeh, both just outside Damascus. All three are branches of the Scientific Studies and Research Centre (SSRC), a government agency, it adds.

Despite monitoring of the sites by the Organisation for the Prohibition of Chemical Weapons (OPCW), the document alleges that manufacturing and maintenance continues in closed sections.

It says the Masyaf and Barzeh facilities both specialise in installing chemical weapons on long-range missiles and artillery.



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The OPCW mentioned Barzeh and Dummar - also known as Jamraya - in its latest official progress update on its work to eliminate Syria's chemical weapons programme.

The watchdog says inspectors visited them between 26 February and 5 March and that it is still awaiting laboratory analysis of the samples that were taken.

The US imposed economic sanctions on 271 SSRC employees three weeks after the Khan Sheikhoun incident, accusing the agency of focusing on the development of non-conventional weapons and the means to deliver them.

It is promoted as a civilian research institute by the Assad government.

A source familiar with weapons inspection protocols says it is plausible that a government might only declare certain facilities on any given site to the OPCW and therefore only give inspectors access to those areas.

The intelligence document also accuses Syria of falsely declaring the work of one of its research branches as defensive - when it really continues to develop offensive capabilities.

In addition, it names senior official Basam Hassan as a key figure in authorising the use of chemical weapons.

He was previously described on a 2014 US sanctions list as President Assad's representative to the SSRC, with the rank of brigadier-general.

Headquarters of the Organisation for the Prohibition of Chemical Weapons (OPCW) in The Hague (31 August 2013)Image copyrightAFP

In a statement emailed to the BBC, the OPCW said it had asked the Syrian authorities to "declare the relevant parts" of the SSRC sites, as per their obligations under the Chemical Weapons Convention (CWC), an international treaty prohibiting their use.

Although the authorities have declared sections of those sites, the statement said that was "not yet sufficient".

The watchdog said it was "not yet in a position to confirm that the [Syrian] declaration is complete and accurate"

Countries signed up to the CWC would soon get a report on the recent inspections, the statement added.

Syria was obliged to give up its stockpile of chemical weapons following an agreement brokered by the US and Russia in 2013, when Mr Assad signed up to the CWC.

The deal was agreed in the aftermath of a chemical attack that killed hundreds of people in opposition-held areas in the Ghouta agricultural belt around Damascus.

The United Nations said Sarin had been used in that incident - the same nerve agent the OPCW, the French government and others say was used in Khan Sheikhoun.

At least 87 people were killed in Khan Sheikhoun, according to the UK-based monitoring group, the Syrian Observatory for Human Rights.

Video posted in the hours following the alleged air strike showed people struggling to breathe and foaming at the mouth - some of the classic symptoms of poisoning by Sarin and other nerve agents.



The pressure group Human Rights Watch released a report on Monday alleging that Khan Sheikhoun was part of a wider pattern of chemical weapon use by Syrian government forces, including three other attacks involving nerve agents since December.

US President Donald Trump cited the pictures of children in distress as one of the reasons he decided to reverse previous policy on Syria and launch a cruise missile strike.

The missiles struck an airbase at Shayrat, which the US says was the place from which the chemical attack was launched.

The intelligence information about the suspected weapons manufacturing sites was shared with the BBC on condition the agency providing it would not be named.

It does not give detail about how the alleged evidence was gathered.

The Syrian government has denied using chemical weapons, with President Assad saying the accusations against his forces on 4 April were "100% fabrication".

In an interview last month with AFP news agency, he maintained that the entire arsenal had been dispensed with under the terms of the 2013 deal.

"There was no order to make any attack, we don't have any chemical weapons, we gave up our arsenal a few years ago," he said. "Even if we have them, we wouldn't use them, and we have never used our chemical arsenal in our history."

The Russian defence ministry meanwhile says deadly chemicals were released in Khan Sheikhoun when a militant warehouse containing chemical munitions was hit in a government air strike.

The area is controlled by groups including Hayat Tahrir al-Sham, which incorporates fighters formerly affiliated to al-Qaeda.

Both Russia and Iran have called for a "thorough and unbiased" investigation into what happened at Khan Sheikhoun, and insisted that only rebel and jihadist groups in Syria have access to chemical weapons.

<http://www.bbc.com/news/world-middle-east-39796763>

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Gulf Times (Doha, Qatar)

Qatar Calls for Nuclear-Free Zone in Middle East

Author Not Attributed

May 4, 2017

Qatar has expressed concern over the worsening international situation, and has called for establishing a nuclear weapons-free zone in the Middle East.

Speaking at the First Preparatory Committee for the 2020 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) in Vienna on Tuesday, Qatar's ambassador and its permanent representative to the International Atomic Energy Agency, Sheikh Ali bin Jassim al-Thani, called for placing all nuclear facilities in the region under comprehensive safeguards of the agency in compliance with the resolution of the 1995 NPT Review Conference and in accordance with the mechanisms agreed upon at the 2010 Review Conference.



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Sheikh Ali bin Jassim said the situation was very grave with international and regional crises posing many challenges. He said the increased emphasis on nuclear weapons in the military and security doctrines of many countries, and the escalation of cyber wars are a major concern for the international community.

He noted Qatar's support for the initiative to prepare a binding international instrument for a nuclear weapons-free world, which the United Nations General Assembly is considering at its current session, as well as its support for the international conferences on the humanitarian impact of nuclear weapons, the last of which was a conference held in Vienna in 2015, which aimed at developing a greater awareness of the catastrophic consequences of use of nuclear weapons.

The ambassador also supported the position taken by the Gulf Co-operation Council (GCC) member-states at the meeting.

Sheikh Ali bin Jassim highlighted the need to avoid a repeat of the failed 2015 Review Conference.

At every relevant international forum Qatar has warned of the long-term humanitarian consequences of nuclear weapons and stressed that the consolidation of peace, security and stability in the world requires nuclear disarmament and investing instead in social and economic development.

Despite that nuclear disarmament and non-proliferation efforts have remain stalled.

Qatar has argued that the threats posed by nuclear weapons require more efforts to create favourable conditions towards a nuclear-free world in accordance with the objectives of the NPT.

It has pointed out that the risk of nuclear proliferation in the Middle East represents one of the key factors that haunt the people of the region in the absence of real international efforts for the elimination of nuclear weapons and in light of the ongoing turmoil in the region and the potential risks that terrorist groups could acquire these weapons.

<http://www.gulf-times.com/story/546881/Qatar-calls-for-nuclear-free-zone-in-Middle-East>

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Jerusalem Times (Jerusalem, Israel)

Iran's Shadow Wars Eclipse Its Nuclear Threat, Says Expert

By Yonah Bob

May 3, 2017

Afshon Ostavar says Tehran's highly influential Revolutionary Guard Corps has combined ideology and practicality in an effective way, producing results in Syria, Lebanon and Gaza.

Iran's clandestine regional interference is a much bigger issue than the nuclear file, Iranian Revolutionary Guard Corps (IRGC) expert Afshon Ostavar said on Tuesday.



Ostavar, a professor at the US Naval Postgraduate School and author of *Vanguard of the Imam* about the IRGC, made the comment at a Foreign Policy Research Institute conference in Philadelphia.

“When it comes to the Middle East,” the Revolutionary Guards, he explained, “are basically the decision-makers if not the shapers of that policy... when it comes to what is going on in Iraq, or Syria, or Lebanon... [it is] their activity or their literally lobbying the supreme leader that seems to dictate policy more than anything else.”

Asked about Hezbollah and Hamas, he said that the IRGC controls Iranian policy because “basically they have done the groundwork. They control the ground game.... The 21st century has been very successful for what IRGC has been trying to achieve.”

He was later asked about the significance of IRGC intervening in the region alongside the nuclear deal.

Ostavar replied: “As I understood the Obama administration, what they thought they gained from the deal... this was a nonproliferation issue for them... keeping nukes out of the hands of a country we didn’t trust with nukes..., everything else was different... Along those lines... I think it achieved what they had hoped it would achieve.”

However, for “people who are less sold on the deal, they were less sold on it because of everything else... [the issue was:] would the deterrent [of signing the nuclear deal with the West] make them [Iran] feel safe and therefore less likely to sort of expand and follow what they’re doing outside of their country? Or would it in fact shield what they were doing and allow them to do it even more openly and boldly?

“What people are worried about now is that it’s done the latter. They don’t need the nuclear deterrent anymore because now they have the nuclear deal deterrent, which in effect took... the leverage out of the US and the international community to put pressure on Iran,” Ostavar continued. “But Iran was able to keep this other deterrent, which in my opinion was actually much more important than a nuclear weapon would have been,” he said, referring to IRGC activities.

Ostavar described the IRGC as highly committed to Iran’s religious revolution and thoroughly practical about influencing Iran’s neighbors. The IRGC’s success is what pushed Israel together with Saudi Arabia and other Arab Gulf countries, at least on a level of certain military cooperation.

Ostavar also discussed the Revolutionary Guards’ control of Iran’s ballistic missile program, especially as it connects to weaponization of its nuclear program, and control of dozens of small naval vessels that can harass US and other international trips traveling near its coast.

<http://www.gulf-times.com/story/546881/Qatar-calls-for-nuclear-free-zone-in-Middle-East>

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USAF Center for Unconventional Weapons Studies (CUWS) Outreach Journal

The Algemeiner (New York, NY)

Iran Nuclear Deal Continues to Raise Concerns

By Heshmat Alavi

May 4, 2017

One would think critics of the Iran nuclear deal would have raised all the flawed aspects of the accord during former President Barack Obama's tenure or new President Donald Trump's first days in office. If so, think twice, as new revelations indicate Obama conceded far beyond what we already knew about.

Politico's Josh Meyer wrote an eye-opening investigative report unveiling how the Obama team freed seven apprehended Iranians by overruling the judgment of veteran prosecutors, while publicly claiming merely economic sanctions were violated by the discussed individuals. The truth was, however, through their membership in a weapons procurement entity, these Iranians posed major threats to US national security.

To add insult to injury, the Obama administration went further in dropping all charges against 14 fugitives, despite clear evidence gathered by US authorities showing their involvement in smuggling advanced weaponry to Iran and its terrorist associates. This measure signaled an end to international arrest warrant efforts against the 14 individuals, and all the while the Obama administration was busy hindering all attempts to seek their apprehension:

"The administration didn't disclose their names or what they were accused of doing, noting only in an unattributed, 152-word statement about the swap that the US 'also removed any Interpol red notices and dismissed any charges against 14 Iranians for whom it was assessed that extradition requests were unlikely to be successful.'"

Senior White House, State Department and Justice Department officials time and again went the distance to deny requests filed by prosecutors seeking to lure one of the 14 fugitives to a US-friendly country to implement a plan for their arrest. To this end, the arms merchants were able to use the opportunity to evade the net of US law enforcement. One can speculate they are now safe in Iran.

Extradition efforts targeting in-custody suspects were also stalled by Obama's people, parallel to the slow-walking of probes and prosecution procedures focusing on US-based procurement,

According to Meyer's report, the Obama administration was successful in deliberately derailing its own measures at very crucial moments:

"Through action in some cases and inaction in others, the White House derailed its own much-touted National Counterproliferation Initiative at a time when it was making unprecedented headway in thwarting Iran's proliferation networks."

In effect, this provided Iran a green light to continue ignoring and defying international law.

When the seven were released, the Obama White House claimed such this "one-time gesture" had ended in the release of "civilians" to render the freedom of Americans who were illegally apprehended by the Iranian regime on bogus charges:



"In his Sunday morning address to the American people, Obama portrayed the seven men he freed as 'civilians.' The senior official described them as businessmen convicted of or awaiting trial for mere 'sanctions-related offenses, violations of the trade embargo.'"

It is quite obvious that such an Iran appeasement policy hinged on and came at the price of doing whatever was needed to get Iran to sign a highly-flawed nuclear agreement, and resorting to whatever lies necessary in selling the pact to the American people:

All this came as proof to Iran of how desperate Obama was, and how far he would go, providing Tehran the exact circumstances to take full advantage.

Iran's mullahs further sensed such weakness in the Obama administration as it failed to enforce its red line regarding Bashar Assad's chemical attacks, and thus green-lighting Iran's involvement in Syria.

The irony, as I explained in Forbes piece back in February, lies in the fact that while Obama was busy selling the deal, Iran and its Islamic Revolutionary Guard Corps (IRGC) were actively taking advantage of the pact's benefits.

"In the past 18 months Khamenei-controlled companies, including the IRGC conglomerate, have sealed deals with foreign companies valued at over \$11 billion...

"Debate over the JCPOA's future remains a major issue. If kept intact despite all its flaws, the U.S. should fully implement all articles and have each and every loophole sealed. This initiative can be coupled with further sanctions punishing Iran's lethal meddling across the Middle East, pursuing a dangerous ballistic missile program and atrocious human rights violations."

Parallel to an extensive JCPOA review, the next necessary step forward for the Trump administration in adopting a new Iran approach is to designate the IRGC as a foreign terrorist organization, and thus showing Iran that the devastating appeasement policy championed by the Obama administration has come to an end.

This will correctly place America alongside the Iranian people in the effort to bring about regime change that will result in a free, democratic and non-nuclear Iran.

<https://www.algemeiner.com/2017/05/04/iran-nuclear-deal-continues-to-raise-concerns/>

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Swarajya Magazine (Bengaluru, India)

'No First Use' Doctrine: India Will Inevitably Have To Respond To Contemporary Challenges

By Harsh Pant

May 3, 2017

An interesting debate is taking place in India on the future of its nuclear doctrine. A number of factors have added a new sense of urgency to this debate – a centre-right government in New Delhi that is not shy of dramatically recalibrating Indian foreign and security policy, growing concern among Indian strategic thinkers that Pakistan's reliance on tactical nuclear weapons as well as the Pakistan-China collusion is rapidly closing India's room for maneuverability and an ongoing power transition in the Indo-Pacific whereby the Trump



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Administration is indicating that it may not be averse to new nuclear powers emerging in Asia.

Though the Modi government has so far not proposed any change in the doctrine of the No First Use (NFU) policy on which India's declaratory nuclear doctrine is based, it had promised in its 2014 election manifesto to "study in detail India's nuclear doctrine, and revise and update it, to make it relevant to challenges of current times." Manohar Parrikar, who till a month back was India's Defence Minister, has questioned the NFU policy on nuclear weapons, asking, "Why a lot of people say that India has No First Use policy... I should say I am a responsible nuclear power and I will not use it irresponsibly... And as an individual, I get a feeling sometime why do I say that I am not going to use it first. I am not saying that you have to use it first just because you don't decide that you don't use it first. The hoax can be called off."

Lt Gen B S Nagal who served as India's Strategic Forces Commander (2008-2010) and, after his retirement, as head of a nuclear cell within the Prime Minister's Office, has suggested that "NFU implies probable large scale destruction in own country, whilst a feeble argument can be made of limited strikes by the adversary on Indian forces in the adversary's territory." He goes on to suggest that "NFU policy cannot conduct a first strike on the adversary's counterforce targets, thus allowing the adversary full capability to attrite own capability."

But what has really set the cat among the pigeons is a recent book by former national security advisor Shiv Shankar Menon where he writes: "There is a potential grey area as to when India would use nuclear weapons first against another NWS (nuclear weapons state). Circumstances are conceivable in which India might find it useful to strike first, for instance, against an NWS that had declared it would certainly use its weapons, and if India were certain that adversary's launch was imminent."

This has led some to argue that there is a doctrinal shift happening whereby India may abandon its NFU policy and launch a preemptive strike against Pakistan if it feared that Islamabad was likely to use the weapons. This is being viewed by many in the West as a seismic shift in India's nuclear posture, one which may have significant consequences for South Asian strategic stability.

There are two problems with this deduction. First, random statements from officials do not a policy make. This is especially true of Indian nuclear policy which has traditionally been the domain of the nation's Prime Minister. Till date, the government in New Delhi or the Prime Minister's Office has not indicated that any such shift in Indian nuclear thinking is underway. In fact, it would be highly illogical for New Delhi to go in for such a shift at a time when it is working so hard diplomatically to join the Nuclear Suppliers Group. Such a move could potentially harm India's credentials as a responsible nuclear power.

Second, Shiv Shankar Menon is not a member of the present government. In fact, his book is about his time in office during the previous UPA government led by Manmohan Singh. His claims, if accepted, would lead one to conclude that there is nothing recent about this thinking. Indian policy-makers cutting across the ideological spectrum have been trying to grapple with Pakistan's adventurous foreign policy for years now. In fact, Menon's book talks of Pakistan's nuclear shield permitting it to undertake terrorist attacks on India



without fear of retaliation, a key variable that is resulting in new ways to look at Indian posture.

As Menon writes, “Pakistan’s nuclear shield permits Pakistan to undertake terrorist attacks on India without fear of retaliation. This may well have figured in the Pakistan Army’s calculations behind the Mumbai attack of November 26, 2008.” Menon’s use of the phrase “comprehensive first strike against Pakistan” in a scenario where tactical nukes are used by Islamabad is not out of context; it is rather one possible alternative to reinforce India’s retaliatory nuclear posture. The logic behind the rhetoric of preemption of an imminent Pakistani nuclear strike also serves the same purpose.

Despite this unease about Pakistan and the growing China-Pakistan axis, the debate on the Indian nuclear posture has only just begun. It has by no means settled down where we can claim a seismic shift is in the offing. As India rises on the international ladder, one cannot expect it to be bound by considerations which made sense a decade earlier, especially when it faces trigger-happy nuclear neighbours. Such nostalgia submits to no strategic logic, even though a few nuclear analysts who consider India’s changing nuclear behaviour as a threat to strategic stability and an ominous precursor to arms races in the region may feel disappointed. These sermons, as Menon argues, “sounds to emerging powers like an attempt to continue an untenable status quo by those who designed and manage the present security order in Asia.” In short, India would not always act as a “status quoist power.”

The Indian nuclear doctrine was articulated in 1999 and it certainly needs to be reviewed. The restrained nature of India’s nuclear behaviour paid many dividends including the Indo-US nuclear deal. In fact, the responsible nature of India’s nuclear behaviour was one of the major arguments in favour of the deal. That functional requirement is not so pressing in the present context, however. The post-2008 trajectory of India’s nuclear arsenal has rather been expansive without the threat of adverse reactions primarily from the US. India’s sea-based nuclear deterrent or its ICBM capabilities have been accepted as a natural corollary of India’s nuclear weapons programme. India’s emergence as a major power in international politics coupled with the changing geopolitical balance of power globally has helped India’s cause. All doctrines require regular reappraisals and Indian nuclear doctrine will inevitably have to respond to contemporary challenges. But just because a debate has emerged doesn’t imply a policy change one way or another.

And this is where both past and present Indian governments have been at fault. They have allowed multiple voices to drown out official policy. The Modi government needs to articulate the nation’s nuclear doctrine once again, clearly and categorically, both for its friends and adversaries. New Delhi should be the place from where the nation’s nuclear posture should emerge, not from Washington and London.

<https://swarajyamag.com/magazine/no-first-use-doctrine-india-will-inevitably-have-to-respond-to-contemporary-challenges>

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India TV News (New Delhi, India)

UN chief following India-Pakistan developments

Author Not Attributed

May 5, 2017

United Nations Secretary General Antonio Guterres is keeping a tab on developments relating to India and Pakistan and he is in favour of dialogue between the two nuclear-armed neighbours, according to his spokesperson Stephane Dujarric.

United Nations Secretary General Antonio Guterres is keeping a tab on developments relating to India and Pakistan and he is in favour of dialogue between the two nuclear-armed neighbours, according to his spokesperson Stephane Dujarric.

When asked to comment on recent media stories on the risk of a nuclear war between the two countries, Dujarric said, "We obviously are following the situation closely, the recent developments included. We reiterate our call for the parties to find a peaceful solution through engagement and dialogue."

Tensions have escalated following Monday's attack on an Indian patrol on the Indian side of the Line of Control in the Krishna Ghati sector of Kashmir. The Pakistani Army killed two Indian personnel and mutilated their bodies, India has said.

One of the recent stories that attempts to draw focus away from the North Korean threat that has become a high priority for the Trump administration to the risk of nuclear war on the subcontinent was published by HuffPost, a popular web publication owned by the telecom multinational, Verizon.

The publication's Senior Military Correspondent David Wood asserted that the situation in South Asia was more alarming than the North Korean threat.

He wrote on Tuesday, "While President Donald Trump is focused on North Korea's nuclear madman, a more alarming threat is rising in South Asia: an explosive mix of nuclear weapons, terrorism and hair-trigger war plans."

The US administration, however, sees a more imminent threat from North Korea led by Kim Jong Un. Secretary of State Rex Tillerson told the Security Council last week that the threat to Seoul and Tokyo from North Korea is "real" and pointed out that Pyongyang, which is developing intercontinental missiles, has repeatedly threatened to strike the US mainland.

<http://www.indiatvnews.com/news/world-un-chief-following-india-pakistan-developments-380151>

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The Diplomat (Tokyo, Japan)

What Would Inform and Drive an Indian Nuclear Posture Review?

By Vivek Prahladan

May 3, 2017

Is New Delhi merely conducting an intellectual exercise about nuclear doctrine or is it responding to something?

A growing consensus among analysts is that India has been undertaking or may have already completed a nuclear posture review whereby India's nuclear forces are no longer restrained by its "no first use" doctrine. However, there is no explanation from these analysts as to why this posture review is taking place.

This latest wave of scrutiny on Indian nuclear posture has been content with placing the review within the strategic ideology of the current government in New Delhi and has made no attempt to link this to India's nuclear intelligence and threat assessment. It may be useful, then, to ask whether New Delhi's strategic establishment is merely conducting an intellectual exercise about nuclear doctrine or is responding to something.

New Delhi is uncertain about the efficacy of its current doctrine, even with all its inbuilt ambiguity regarding first strikes and first use.

First, India is unsure today whether it can continue to be confident in its deterrence of Pakistan. The balance between "deterrence by denial" from Pakistan and "deterrence by punishment" from India appears to have gone past its lease date, at least from the Indian perspective. Inadvertently, New Delhi is testing the limits of Cold War deterrence ideas.

Second, Pakistan may have shifted its nuclear doctrine since the South Asian nuclear tests in 1998, compelling a shift in Indian nuclear doctrine. In that respect the recent escalatory musings from Delhi may indeed be welcomed by Islamabad.

Third, role of China in routinely enhancing Pakistan's nuclear delivery systems as a way of keeping Indian nuclear doctrine overcommitted to Pakistan and artificially maintaining India-Pakistan nuclear parity has received little attention.

Finally, the role of Indian external intelligence (for example, the Research and Analysis Wing, or RAW) in enabling accurate threat assessments by the National Security Council Secretariat (NSCS), which becomes the basis of the counsel that eventually reaches the Prime Minister's Office, has received inadequate attention. Alternatively, doctrinal speculations in South Asia can also be read as an outcome of the maturation of nuclear arsenals as both India and Pakistan are moving to a dependable triad capability (although this is less certain in case of Pakistan).

Pakistan appears now to have succeeded in establishing the credibility of its "deterrence by denial" strategy and India's purported posture review may be striving for "counter-denial deterrence." A specific intelligence input can only be guessed at this juncture and it may well be that India's "surgical strike" last fall fueled Pakistan's forward deployment of its tactical nuclear arsenal.

How precise is the nuclear intelligence available in New Delhi in any case? Evidence suggests a rather high level of sophistication, including knowledge in Delhi of the specific times and dates when Pakistani missiles are moved from their storage locations. For



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instance, it was known to Indian intelligence that Pakistan had moved M-11 missiles out of their storage sites on the morning of May 28, 1998, the date for Chagai-I tests.

As for China, India has kept track over the years of the precise number of assembled ready-to-use missiles transferred to Pakistan by China but it has been harder to count those being manufactured in Pakistan. For instance, Indian intelligence is routinely aware of the number of missile casings transferred from China to Pakistan for those missiles being manufactured in Pakistan. China had provided casings for Shaheen-I and Shaheen-II. However, recent news that China plans to set up joint missile manufacturing in Pakistan will create further uncertainty regarding this number.

Currently, New Delhi is looking for ways to undermine Pakistan's deterrence by denial strategy and any suspected Indian posture review would be a concession to the fact that there is reliable information with New Delhi that Pakistan has successfully deployed denial systems. Thus, any Indian strategic rethinking is a likely indication that Pakistan has successfully implemented a credible denial mechanism.

What does this mean for escalation stand-off possibilities between India and Pakistan? First, we must consider how New Delhi looks at Pakistan's nuclear doctrine. A posture review of "no first use" means that New Delhi is convinced that Pakistani nuclear doctrine incorporates a limited nuclear war concept where Islamabad believes it can contain nuclear damage within the military theater. However, this posture review may have less to do with fortifying New Delhi's sense of nuclear security than with its intent to increase insecurity for Pakistan nuclear forces.

There is additionally a real probability that India may be actively considering tactical force deployments of its own to implement counter-denial deterrence with Pakistan. As one former national security advisor told this author in the course of an interview for the book *The Nation Declassified*, "the question of tactical weapons keeps coming on the table but the answer has remained the same." The implication was that India would not deploy tactical forces at the front end of its nuclear deterrence strategy, but this may be changing today.

A more probable explanation for any looming shifts might be that a posture review will create inconsistencies for Pakistan's theater-level forces in deciding whether these forces are meant to deter Indian first use or deny a conventional attack. This causal chain goes back to nuclear intelligence available with India's National Security Council Secretariat, which has a mix of RAW directors, MEA joint secretary-level representatives, military and naval intelligence, et cetera. And finally, there is the lesson of Cold War-era deterrence practice where the principle of deterrence by punishment eventually came to overshadow denial doctrines.

<http://thediplomat.com/2017/05/what-would-inform-and-drive-an-indian-nuclear-posture-review/>

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The Daily O (New Delhi, India)

What are the odds of India's nuclear first strike against Pakistan?

By Rajit Ojha

May 4, 2017

Atomic stuff is exotic and esoteric but at the end of the day, certain universal rules still apply.

Forget a nuclear winter setting in as a result of an India-Pakistan atomic exchange anytime soon, instead we find ourselves in the middle of a nuclear summer, as "The Gray Lady" is the latest entity to hot up the Great NFU debate.

Although, why we are debating whether India is abandoning its policy of no first use of nuclear weapons at this juncture is extremely puzzling.

The NYT piece quotes "circumstantial evidence" in the form of a "triad" of statements — by former NSA Shiv Shankar Menon, a retired head of India's Strategic Forces Command (SFC), Lt Gen BS Nagal, and then defence minister Parrikar — as the trigger.

But how is any of this new? The key provocateur in the latest rerun of this debate, Vipin Narang of MIT, had already highlighted this triad in November 2016, so what has changed since then except a high-profile think tank event that needed some radioactive grist so as not to appear run of the mill?

Another contention is that India has now moved away from using nuclear weapons for counter value targeting (essentially cities) to counter force targeting (essentially military targets).

But why would Indian planners regard these as mutually exclusive in the first place, especially when the doctrine is centered around massive retaliation?

Moreover, the Indian doctrine goes further than even ambiguous US threats in Desert Storm by promising nuclear retaliation for biological and chemical weapon attacks.

The enemy's chemical and biological weapon facilities — which in this context fall under a counterforce definition — have always been in the cross hairs.

Also, is Rawalpindi — home to Pakistan Army's general headquarters as also millions of civilians — a counterforce target or a countervalue target? What about Karachi?

Pakistan's most populous city is also a base for its submarines, now supposedly armed with cruise missiles with nuclear warheads, giving them a nascent second-strike capability.

Counterforce versus countervalue distinctions only go so far, and the lines blur frequently.

Coming back to the triad of statements, let's consider Parrikar's. His maverick pronouncements on NFU led to his own ministry immediately distancing itself from them. This is a man who once said India must "neutralise terrorist through terrorist", but we didn't see counter-terrorism experts confirming the return of CIT-X and CIT-J as an instrument of the Indian policy.

Why then should his nuclear pronouncements be taken seriously?

How are Lt Gen Nagal's strong words suggesting that an NFU posture was somehow "morally wrong" proof that India is shifting to a first-use posture?

If anything, his angst seems to suggest status quo, why else would he be channelling his inner Sundarji and advocating a change of what he perceives is a flawed policy.

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Primarily, extracts from Shiv Shankar Menon's book have been cited as the most credible evidence of a change in status quo.

Narang offers Menon's statement that "Pakistani tactical nuclear weapons use [or imminent use] would effectively free India to undertake a comprehensive first strike against Pakistan" as the clincher.

Unfortunately, he is mixing up Rules of Engagement (ROE) that exist at the tactical level with a shift in doctrine.

Menon's statement on "imminent use" is consistent with a positive indication of hostile intent.

"Do Not Fire Until Fired Upon" is a Hollywood catchphrase and does not apply to real world ROE, which almost always prioritises intent over action. Look no further than the US Navy's shootdown of Libyan Mig-23s in 1989 that it is a standard practice to be the first to fire if "hostile intent" is assessed and self-defence becomes the priority.

Yes, nuke stuff is exotic and esoteric but it's still warfare at the end of the day and certain universal rules still apply.

Regardless, if we think a first strike will neutralise all Pakistani nuclear strike capability, that's just a chimera.

For India to adopt a Pakistani version of a nuclear first strike — a nuclear response to an overwhelming conventional attack — makes little sense given the respective military capabilities of the two nations.

None of this is to say that a greater debate about India's nuclear weapons posture isn't required. In fact, there is an overwhelming need for it; but I daresay on more vexing issues.

Watch this space to know what that might look like.

<http://thediplomat.com/2017/05/what-would-inform-and-drive-an-indian-nuclear-posture-review/>

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Bloomberg (New York, NY)

What Did You Do During the Great Chemical War, Grandpa?

By James Gibney

May 1, 2017

Assad's brutal attacks show why the Chemical Weapons Convention still matters.

You probably didn't take a moment this weekend to toast the 20th anniversary of the global Chemical Weapons Convention. Maybe it slipped your mind. Or, given the horrific chemical weapons attack in Syria last month, maybe you felt any commemoration would ring hollow.

Yet the anniversary is worth honoring. The only international arms control treaty that bans an entire class of weapons, the CWC has been signed by 192 nations, and has resulted in the destruction of nearly 95 percent of the world's chemical weapons.

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Granted, I'm not disinterested. My family has its own history of involvement with chemical warfare. No, my grandfather wasn't on the front lines breathing in mustard gas like the poor sods memorialized in Wilfred Owen's "Dulce et Decorum Est," whose "blood come gargling from the froth-corrupted lungs." He was on the home front manufacturing it.

Lieutenant John R. Suydam was in what became the U.S. Chemical Warfare Service, stationed first at American University in Washington, where nearby residents still dig up the toxic fruits of his unit's labor, and then at the Edgewood Arsenal in Maryland, which was built in 1917 to produce chemical agents. According to the memoirs of one of his roommates at Columbia, where he got his PhD in chemistry, Grandpa "had a delightful personality, but was somewhat absent-minded." One of his nicknames, apparently, was "Foggy John." Little did his roomies know what kind of fog John would soon be putting down.

I was 11 when my grandfather died, and never had the chance to ask him, "What exactly did you do during the Great War, Grandpa?" But I do know now that Edgewood was making about 675 tons of toxic agents a week in late 1918, shipping the stuff to France. It was a dangerous business. I wouldn't be here today if he had died "from absorption of deleterious gas," as one of the arsenal's casualty reports artfully put it.

Nearly 30 percent of U.S. casualties during the First World War came from gas attacks. Relatively few died, but 70,000 to 90,000 were wounded, some to lifelong effect. My grandfather's commander, General Amos Fries, was something of a chemical evangelist: After the war, he fought a rear-guard action to keep the service intact, writing tracts like "The Humanity of Poison Gas." He transmitted his enthusiasm to his men, whose proposed slogans for an Edgewood Arsenal newspaper included "GAS killed the GERM in GERMANY," and, less mellifluously, "GAS warfare: a policeman's club for world peace." Whether my grandfather carried any of this zeal into his decades as a chemistry teacher at St. Mark's School in Southborough, Massachusetts, I'll thankfully never know.

Some four score years after Lieutenant Suydam's Edgewood tour of duty, on April 4, 1997, I found myself in the Map Room at the White House, watching a white-gloved steward carefully peel a banana and proffer it to President Bill Clinton. We were at a pre-briefing for an event to garner support for the treaty, which was up for ratification in a recalcitrant Republican-controlled Senate. (I was a Foreign Service officer on detail to the National Security Council as a speechwriter.)

As Clinton reviewed his remarks, Rahm Emanuel, then Clinton's senior adviser on politics and domestic policy, snarled, "I don't hear the sound bite. Where's the bite?" Clinton munched on, nodding as National Security Adviser Sandy Berger briefed him.

The point of the event was to wrap the treaty in the mantle of as many Republican heavyweights as the administration could round up. So we had former Joint Chiefs of Staff chairmen Generals Colin Powell and David Jones, former strategic arms negotiators Paul Nitze and Edward Rowny, former Arms Control and Disarmament Agency head Kenneth Adelman, and a slew of others. This approach had other dividends: Even as Vice President Al Gore gave a bloviating address, former Secretary of State James Baker was crisp, forceful, to the point.

Many of the last-ditch objections to the treaty raised by Senator Jesse Helms, the North Carolina Republican who was leading the fight against it, were risible. He harped on how many potentially hostile nations were refusing to sign on. But as Clinton noted at a subsequent press briefing, keeping the U.S. out of the treaty until Russia joined would



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reduce U.S. leverage over Moscow. Waiting until rogue nations such as Iraq and Libya joined would likewise prevent the U.S. from using the treaty against them.

In the end, the treaty passed the Senate 74-26 on April 24, and entered into force five days later. Since then, the Organization for the Prohibition of Chemical Weapons -- which won the Nobel Peace Prize in 2013 -- has destroyed 68,000 metric tons of chemical weapons and 7.4 million munitions.

True, signing the CWC didn't stop Syria from using chemical weapons. But as Daryl Kimball, executive director of the Arms Control Association, told me, "Syria isn't an easy test case" of the treaty's effectiveness. For one thing, Syria's civil war made inspections harder; for another, even as the OPCW destroyed Syria's declared chemical weapons stocks, it made clear that Assad's declarations had omissions and inconsistencies. Moreover, the organization repeatedly documented Syria's continued use of sarin, mustard and chlorine gas.

In short, the failure to hold Syria to account is a weakness not of the OPCW or the treaty, but of the permanent members of the United Nations Security Council who drive enforcement. "Russia has a lot to answer for," said Kimball.

So, too, does the U.S. Members of the Obama administration have downplayed their failure to punish Assad for crossing Obama's 2012 "red line" by pointing to the subsequent Russia-backed disarmament deal. But such protestations fall flat in the face of Obama's willingness to tolerate Assad's later chemical attacks. If Obama had responded with a military strike after Assad's use of sarin in August 2013 -- which killed more than 1,400 people -- smart diplomacy might well have secured the same disarmament deal, only with much greater deterrent effect.

Instead, enforcement of the taboo against chemical weapons was left to President Donald Trump, whose response to Syria's April 4 attack seemed much more influenced by grim footage of "innocent babies, babies, little babies" than violations of international treaties.

That's too bad, because as an international instrument, the CWC faces some big challenges. Holdouts need to be brought on board, including Israel (which has signed but not ratified it) and Egypt (which helped Syria develop chemical and biological arsenals and is thought to have stocks that homegrown terrorists could potentially acquire). As technology evolves, so must the expertise and reach of inspectors. And 20 years after the CWC came into force, no member state has ever called for a "challenge inspection," fearing a tit-for-tat response.

The building at Edgewood Arsenal where my grandfather worked was torn down a few years ago. And the U.S. has spent more than \$5 billion since 1997 to destroy its chemical arsenal. But for taboos to retain their power, they must periodically be enforced, preferably by those who believe in them.

<https://www.bloomberg.com/view/articles/2017-05-01/what-did-you-do-during-the-great-chemical-war-grandpa>

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The National Interest (Washington, DC)

Why America Should Keep Supporting the IAEA

By Laura Kennedy and Laura Holgate

May 4, 2017

As ambassadors who have represented the United States at the International Atomic Energy Agency (IAEA), we know how it contributes to U.S. national security. We therefore applaud Representatives Jeff Fortenberry, Bill Foster and Pete Visclosky for cosponsoring H.Res. 260: "Expressing the sense of the House of Representatives in support of the International Atomic Energy Agency's (IAEA) nuclear security role."

U.S. leaders from both sides of the aisle have consistently supported global efforts to prevent terrorists from stealing, transporting or using nuclear materials to wreak destruction and panic. Much of this work is accomplished through direct cooperation among the United States and other countries who wish to secure nuclear materials, improve nuclear detection, beef up nuclear forensics, or eliminate nuclear materials they no longer use. But this cannot and should not be something the United States does alone.

Such tools as international standards for nuclear security, regional cooperation and peer reviews of security practices are all critical to countering nuclear terrorism, and if the IAEA didn't already exist to support these efforts, we would have to invent it. The IAEA conveys legitimacy, convenes experts from around the world and coordinates other groups working on nuclear security. The IAEA can pool contributions from myriad donors in the Nuclear Security Fund and use these resources to improve member states' ability to secure, detect and eliminate nuclear materials.

This is why the Nuclear Security Summits were designed to enhance, empower, elevate and energize the IAEA's nuclear security work and why its central role was highlighted in the Communiqués of all four Summits. The IAEA Action Plan, agreed by consensus at the final Summit just a year ago, provides a blueprint for future action by member states, acting through the agency's governing bodies and individually, to advance the agency's nuclear security efforts. Some modest steps to implement this Action Plan were visible in the IAEA's 2016 Nuclear Security Resolution and at its Nuclear Security Ministerial Conference held in December, but more needs to be done, and H.Res. 260 is right to call for more action.

For the United States to play its role in this implementation, Congress needs to provide adequate resources in the budgets of the State Department, the National Nuclear Security Administration and the Defense Department to fully fund our IAEA contributions. We can vastly leverage our modest national contribution through this international consortium.

This investment in enhancing our protection against nuclear threats is just one example of how the foreign-affairs budget supports our own national security. International cooperation—whether building alliances to combat the drug trade, increasing global capacity to prevent pandemics from crossing our borders, or promoting the rule of law and transparency abroad to facilitate the export of U.S. goods and services—directly benefits us at home.



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The 1 percent of the U.S. federal budget that is devoted to the State Department yields huge returns on this investment on Americans' security and prosperity, and must be preserved.

<http://nationalinterest.org/blog/the-buzz/why-america-should-keep-supporting-the-iaea-20485>

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Red Bluff Daily News (Red Bluff, CA)

Stan Statham: My take on biological weapons

By Stan Statham

May 4, 2017

Last month President Trump authorized an attack that launched 50 Tomahawk missiles into Syria. That brought a personal experience back to me that I had long ago.

We all know that Syria's President Bashar Al-Assad has used biological weapons, or WMDs, against his own citizens. Sarin gas was just one of the Weapons of Mass Destruction that Al-Assad has used over the years. His actions are beyond despicable. It is not unlike something Adolph Hitler would have done against the Jewish people if such biological weapons would have been available to him then.

The reason this was a personal experience was because of my service in the United States Army in the late 1950s. As a member of the 131st Medical Technical Intelligence Group, I joined a Major and a Sergeant Major and we were all assigned to a small intelligence unit. That was 1956 in Berlin, Germany.

The unit was in the espionage business. Both the Major and the Master Sergeant spoke German. I did not. We had all received Top Secret clearances and were assigned to gather as much information as possible from East Germany regarding biological weapons. At that time I still remember that we called it Germ Warfare.

Those two gentlemen and I were assigned to gather intelligence by meeting with people we referred to as sources. After those meetings my task was to microfilm documents and type a report which I forwarded immediately to the Pentagon in Washington, D.C.

One of my favorite memories of that time was that the other two guys regularly used a small tape recorder the size of a Walkman that they stuck into a back pocket. There was a long, thin cord which had to be put down the sleeve of the Major or Master Sergeant's coat and plugged into an actual fake wrist watch, which in fact was the microphone.

I remember that just one of the locations from which we gathered information was the Institute for Serum and Vaccine Testing located in Leipzig, Germany. That facility was then thought to be developing those kind of deadly weapons.

I was quartered in a private home in the then American sector of Berlin. The previous occupants had been a Jewish family that had been forcibly removed by Hitler's people.

Incidentally, my very own father, who served in the Canadian Army in World War One, was in France fighting the Germans when the new biological weapon of nerve gas was first used.



Little did I know that I would be spending my last teenage years as a James Bond type and be actually located only a few miles from the then Berlin Wall.

Twenty six countries have already prohibited use of these modern uncivilized weapons. In fact Syria's use of Sarin gas recently killed many innocent men, women and children. China, France, India, Israel, Pakistan, Russia, the United Kingdom and America are known to have WMDs and are also capable of using them.

The information that bothers me most today is that the leader of North Korea, Kim Jong Un, also has the ability to start using chemicals in warfare. And, that is tragic because I think he is one crazy bastard.

<http://www.redbluffdailynews.com/opinion/20170504/stan-statham-my-take-on-biological-weapons>

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Knoxville News Sentinel (Knoxville, TN)

Editorial: Y-12 dog firm lost explosives, trust

Editor Not Attributed

May 2, 2017

K-9 Search on Site says it's changed the way it does things since a pound of explosives went missing in March and is considered lost.

Let's hope so.

The subcontractor provides detection-dog services at the Y-12 nuclear weapons plant in Oak Ridge, performing checks of vehicles and people entering the high-security plant. The dogs are trained to sniff out the presence of drugs, explosives and other items of concern.

The training explosives - Dyno-AP, an ammonium nitrate-based explosive - were hidden in a bag between the engine and axle of an employee's vehicle during a blind-hide exercise. Only the canine trainer who hid the explosives knew they were there.

That's routine procedure in a blind-hide, according to a report filed with the Oak Ridge Police Department, at K-9 S.O.S. It prevents handlers from accidentally tipping off their dogs during search training or certification.

The events that followed are what concern us.

The handler hid the tan bag with two sticks of yellow explosives and then went to lunch, as did the unknowing employee whose vehicle carried the training explosives.

When the handler who hid the explosives noticed the vehicle was missing, he called the driver, according to the police report. The vehicle had been gone about 10 minutes and driven about three miles.

The driver checked under his hood and didn't find the explosives. He returned to the K-9 S.O.S. site, and then he called the boss. The vehicle was taken to a barn equipped with a car lift, and a more thorough search was done. Still no explosives.

And still no call to police who could alert the public to the absent bag of explosives, which generally will not explode without a detonator. Dyno-AP, however, is sensitive to fire, supersonic shock or high-energy projectile impact.



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If opened, it also can cause irritation to the skin and eyes.

K-9 S.O.S. defends its protocol of not notifying the police until about six hours after the incident, saying it wasn't sure the explosives were missing or lost; they possibly still could be on the vehicle which had traveled into Knox County.

At the point officials did determine the bag was missing, they called the federal Bureau of Alcohol, Tobacco, Firearms and Explosives. They say they had 24 hours to do so and didn't have to contact the police until after the call to ATF. So, in the midst of the search and after contacting ATF, they called the police.

The company says it learned some lessons, including not letting a vehicle involved in a blind-hide leave the site. It also made other changes officials don't want to discuss, citing security and business privacy concerns.

The company says it made a mistake and is going to improve. Let's hope so, considering it is a guardian at the gate of a nuclear weapons plant.

<http://www.knoxnews.com/story/opinion/editorials/2017/05/02/editorial-y-12-dog-firm-lost-explosives-trust/100844428/>

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ABOUT THE USAF CUWS

The USAF Counterproliferation Center was established in 1998 at the direction of the Chief of Staff of the Air Force. Located at Maxwell AFB, this Center capitalizes on the resident expertise of Air University, while extending its reach far beyond - and influences a wide audience of leaders and policy makers. A memorandum of agreement between the Air Staff Director for Nuclear and Counterproliferation (then AF/XON), now AF/A5XP) and Air War College Commandant established the initial manpower and responsibilities of the Center. This included integrating counterproliferation awareness into the curriculum and ongoing research at the Air University; establishing an information repository to promote research on counterproliferation and nonproliferation issues; and directing research on the various topics associated with counterproliferation and nonproliferation.

The Secretary of Defense's Task Force on Nuclear Weapons Management released a report in 2008 that recommended "Air Force personnel connected to the nuclear mission be required to take a professional military education (PME) course on national, defense, and Air Force concepts for deterrence and defense." As a result, the Air Force Nuclear Weapons Center, in coordination with the AF/A10 and Air Force Global Strike Command, established a series of courses at Kirtland AFB to provide continuing education through the careers of those Air Force personnel working in or supporting the nuclear enterprise. This mission was transferred to the Counterproliferation Center in 2012, broadening its mandate to providing education and research to not just countering WMD but also nuclear deterrence.

In February 2014, the Center's name was changed to the Center for Unconventional Weapons Studies to reflect its broad coverage of unconventional weapons issues, both offensive and defensive, across the six joint operating concepts (deterrence operations, cooperative security, major combat operations, irregular warfare, stability operations, and homeland security). The term "unconventional weapons," currently defined as nuclear, biological, and chemical weapons, also includes the improvised use of chemical, biological, and radiological hazards.

The CUWS's military insignia displays the symbols of nuclear, biological, and chemical hazards. The arrows above the hazards represent the four aspects of counterproliferation - counterforce, active defense, passive defense, and consequence management.