

## **Feature Report**

"Global Nuclear Landscape 2018". Published by the Defense Intelligence Agency; February 2018 <a href="https://www.defense.gov/portals/1/features/2018/0218">https://www.defense.gov/portals/1/features/2018/0218</a> NPR/img/Global Nuclear Landscape 2 018 Final.pdf

Since the end of the Cold War and related reductions of Russian and U.S. stockpiles, the number of nuclear states has increased; their stockpiles have grown; new weapons have been built and older weapons improved; and the threshold for use has potentially lowered. Nation-state efforts to develop or acquire weapons of mass destruction (WMD), their delivery systems, or their underlying technologies constitute a major threat to the security of the United States, its deployed troops, and its allies. Most nuclear-armed countries see nuclear weapons as a guarantor of sovereignty and are unlikely to eliminate their stockpiles. A future use of nuclear weapons probably would bring about significant geopolitical changes as some states would seek to establish or reinforce security alliances with existing nuclear powers and others would push for global nuclear disarmament.

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#### US NUCLEAR WEAPONS

Defense News (Washington, D.C.)

## **Nuclear Warhead Manager Seeks FY19 Funding for New Nuke Designs**

By Aaron Mehta

March 20, 2018

WASHINGTON — The agency in charge of managing America's nuclear warheads is in discussions with the Office of Management and Budget about getting funding to start work on two new nuclear capabilities sought by the Trump administration.

The National Nuclear Security Administration, a semiautonomous agency within the Department of Energy, is a key player as the government seeks to create both a low-yield warhead for its submarine-launched ballistic missile and a new sea-launched, nuclear-capable cruise missile.

But while the Pentagon has identified those two systems as vital to national interests, and has set aside \$22.6 million in fiscal 2019 for a low-yield ballistic warhead, the NNSA's budget request for FY19 doesn't contain any funds to support that work.

"We are leaning as far forward as we possibly can, working with OMB and [the Department of Defense]" on the question of FY19 funds, said Lisa Gordon-Haggerty, the NNSA head, during congressional testimony Tuesday.

Philip Calbos, acting deputy administrator for defense programs at NNSA, later added that it would be "beneficial" for the agency to be able to begin work on the two new systems in '19, rather than having to wait until money is put into the FY2020 request.

The officials did not clarify how they would go about getting that money added to the budget request, but it could come as either a supplemental request from the administration or through Congress during the authorization and appropriations process. Members of the House Energy and Water Development, and Related Agencies Subcommittee seemed open to that option during Tuesday's hearing, with several members saying they looked forward to talking with the agency officials in a smaller setting.

The Nuclear Posture Review laid out the need to invest in both a short-term development of a low-yield nuclear warhead that could be put on the Navy's Trident ballistic missiles, as well as a new nuclear-capable cruise missile that can be launched by naval vessels.

But while the DoD is ready to invest in the near-term capability, the NNSA appears to have been unable to incorporate the final decisions of the NPR, as it was building its budget at the same time.

Calbos described the NNSA's portion of work on the submarine-launched ballistic missile as "a moderate level of effort, again relatively speaking, at a moderate cost. And we believe we can fit it in, in the near term." That is in line with the belief, expressed by defense officials, that the agency should be able to simply modify a handful of the W76-1 warheads already undergoing a service life extension.

And because the submarine-launched ballistic missile capability is not as near term, that should not impact the series of currently ongoing warhead life-extension and modification programs — assuming those all stay on track.

Both officials said they believe the warhead modernization efforts currently underway will not be impacted by the additional projects, but acknowledged that the real driver of keeping things on track comes down to stable funds.

"This is not a one-, two-, three-year effort. It took us a while to reach the point we are in, in respect to the enterprise, and it will take us a while to get it back on secure footing for the next several decades," Calbos said. "Technically, we have the workforce that can do it. We're beefing up the enterprise so it can do the work it needs to do. We need sustained funding for many years."

https://www.defensenews.com/smr/nuclear-triad/2018/03/20/nuclear-warhead-manager-seeks-fy19-funding-for-new-nuke-designs/

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Washington Examiner (Washington, D.C.)

## US Nuclear Commander Says Future Sea-launched Cruise Missile 'Not a Bargaining Chip'

By Jamie McIntyre

March 20, 2018

The nation's top nuclear commander says the Pentagon's plan to develop a new sea-launched, low-yield nuclear cruise missile should not be considered a "bargaining chip," despite language in the recent Trump nuclear doctrine that suggests the U.S. may give up the weapon if Russia changes its behavior.

"I don't like the term 'bargaining chip.' The capabilities that we propose in the Nuclear Posture Review are in response to the threat," Gen. John Hyten, commander of the U.S. Strategic Command, told lawmakers Tuesday.

"If that threat changes, then my military advice will change. But if that threat doesn't change, then my advice will say that we need those capabilities in order to respond to the threat," Hyten said in testimony before the Senate Armed Services Committee.

He described the threat as Russian President Vladimir Putin's stated doctrine to use low-yield nuclear weapons in conventional warfare in order to "escalate to win," which Putin first-described in 2000.

Hyten, who is in charge of the U.S. nuclear arsenal, was questioned about a paragraph in the Pentagon's recently released Nuclear Posture Review that suggested the U.S. would abandon plans for the new sea-launched missiles if Russia were to back off some aspects of its aggressive nuclear doctrine and reduce its stockpile of non-strategic "battlefield" nukes.

"If Russia returns to compliance with its arms control obligations, reduces its non-strategic nuclear arsenal, and corrects its other destabilizing behaviors, the United States may reconsider the pursuit of a SLCM (Sea-Launched Cruise Missile)," the U.S. nuclear doctrine states.

"I'm not a diplomat. I'm not a politician. Diplomats need to work those issues with our adversaries," Hyten said. "I hope that they do, but my job as a military officer is to look at the threat, understand the threat, and propose capabilities to this body to deliver to the military so that we can respond to any threat that exists."

Hyten pointed out that while the U.S. is moving ahead with replacing a small number of submarine-launched ballistic missiles with a smaller low-yield version, the plans for a sea-launched cruise missile remains years in the future.

The U.S. won't even decide until next year whether the proposed missile will be designed for a submarine or a surface ship, Hyten said.

Hyten also said the new low-yield option would not increase the overall number of U.S. nuclear weapons, and instead would replace capabilities that were phased out when it appeared Russia was acting more as a partner than a rival.

https://www.washingtonexaminer.com/policy/defense-national-security/us-nuclear-commander-says-future-sea-launched-cruise-missile-not-a-bargaining-chip

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Defense News (Washington, D.C.)

### DoD's Cost of Low-yield Nuclear Warhead for Submarines Set at \$48.5 Million

By Aaron Mehta

March 19, 2018

WASHINGTON — The Pentagon expects to spend \$48.5 million over the next five years developing a new low-yield nuclear capability for submarine-launched ballistic missiles.

That figure was included in written submissions to Congress, obtained by the Union of Concerned Scientists and shared with Defense News ahead of upcoming hearings about the defense budget. It represents only the defense department's expected expenditure for the new warhead, and does not include funding from the Department of Energy.

Per the testimony, there is \$22.6 million set aside to help develop the warheads in fiscal 2019 and \$48.5 million spread over the life of the Future Years Defense Program, or FYDP, a series of projected numbers that cover through FY23.

That includes \$19.6 million in FY20, \$3.2 million in FY21, \$1.5 million in FY22 and \$1.6 million in FY23. Those numbers are just projections and could change depending on need or changes in technical difficulty — notable, as the National Nuclear Security Administration has yet to figure out the full design and is still working out the technical requirements.

But the fact the money is largely up-front is in line with what has been said publicly by government officials about the timeline for the W76-1, the existing SLBM warhead design currently going through a life extension program.

That extension production line is scheduled to shut down in FY19, but NNSA director Lisa Gordon-Hagerty told senators at a March 14 hearing that the government is sorting through right now whether they would need to extend that production run to accommodate the lower-yield options.

The lower-yield option "shouldn't have a significant" impact on the current W76-1 production, Gordon-Hagerty said, adding that she did not expect any special testing or simulations would be required for the low-yield option as opposed to their more destructive cousins.

However, she also noted that there is currently no money in place from NNSA's budget to work on the W76 variant, signaling that the \$48.5 million DoD expects to spend will not be the final cost of the weapon design. NNSA handles development and production on the warhead itself, while DoD handles the delivery systems.

Easy modification?

The Nuclear Posture Review raised eyebrows with its call for a low-yield warhead for the submarine-launched ballistic missiles. The plan involves a "near-term" solution in which the NNSA

would modify a small number of existing W76 SLBM warheads to turn them into low-yield weapons. Just how many warheads would be modified is classified.

The agency is already in the process of doing a life extension on the W76 warheads for those weapons, with Robert Soofer, deputy assistant secretary of defense for nuclear and missile defense policy, telling reporters ahead of the NPR's publication that the plan is to set aside a few of those warheads and make them less powerful, instead of developing a brand-new system.

"All this would require us to reserve the last X number, tens of warheads, and instead of doing a full [life extension], do the primary only. It doesn't require additional capacity," Soofer said of developing the capability. On the Navy side, the service would "just take that warhead and make sure they can qualify" an SLBM on a sub.

The Pentagon has argued that developing low-yield nuclear weapons is needed to counter threats from China and particularly from Russia, which has invested significantly in its own low-yield weapons in what U.S. officials believe is part of its "escalate to deescalate" strategy. Under that concept, Russia would be willing to use a small nuclear weapon, assuming NATO allies — when faced with using a strategic nuclear weapon or not responding at all — will back down in a conflict.

However, members of the nonproliferation community, such as Stephen Young, a senior analyst with the Union of Concerned Scientists, counter that a low-yield weapon will be destabilizing, particularly given the rhetoric from the Trump administration over nuclear weapons.

"Providing any president with new, more usable nuclear capabilities deserves serious contemplation at any time. The fact that it is this president, with his bellicose rhetoric and threats of 'fire and fury,' make it even more important," Young said. "This is not something that should be rushed through in a little over a year, even if such speedy action is nominally possible."

https://www.defensenews.com/smr/nuclear-triad/2018/03/19/dods-cost-of-low-yield-nuclear-warhead-for-submarines-set-at-485-million/

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UPI (Washington, D.C.)

#### Lockheed Awarded Contract for Trident II Production, Support

By James LaPorta

March 20, 2018

Lockheed Martin has been awarded a contract for production and support of the Trident II D5, a submarine-launched ballistic missile.

The deal, announced Monday by the Department of Defense, is valued at more than \$522.3 million under the terms of a fixed-price-incentive, cost-plus-incentive-fee, and cost-plus-fixed-fee contract, which is a modification to a previous award by the U.S. Navy.

The agreement cements options for the Navy to enable Lockheed Martin to produce Trident II D5 missile and provide deployed system support, the Pentagon said.

The UGM-133A Trident II, or Trident D5, is a submarine-launched ballistic missile and is currently operational on Ohio-class submarines and United Kingdom Vanguard-class submarines.

Work on the contract will occur in multiple locations and is expected to be complete in September 2022.

The total amount of the contract will be obligated to Lockheed Martin at time of award from several different naval accounts.

The Defense Department says none of the obligated funds will expire at the end of the current fiscal year.

Additionally, more than \$7.7 million will be obligated to Lockheed Martin from Navy fiscal 2018 research, development, test, and evaluation funds, which will not expire at the end of the current fiscal year.

https://www.upi.com/Lockheed-awarded-contract-for-Trident-II-production-support/4241521546755/

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Aiken Standard (Aiken, S.C.)

## NNSA Chief: Decision Regarding Pit Production Location Expected in May

By Colin Demarest

March 15, 2018

A decision on whether to bring plutonium pit production to the Savannah River Site could come as early as May 11, according to testimony before a U.S. Senate Armed Services subcommittee.

On Wednesday, the leader of the National Nuclear Security Administration, Lisa Gordon-Hagerty, said a secondary review of potential pit production locations is wrapping up – "The engineering analysis that is currently underway is in its final stages" – and will be reviewed shortly thereafter.

"Draft data," Gordon-Hagerty continued, is already available.

The NNSA is a semiautonomous U.S. Department of Energy agency tasked with maintaining the nation's nuclear weapons and nonproliferation complexes. The NNSA is under orders to produce 80 pits – nuclear weapon triggers – per year by 2030 to sustain the nation's senescent nuclear armaments.

Pits have been produced at the Los Alamos National Laboratory in New Mexico, but no new pits have been made since 2011. A preliminary NNSA analysis of alternatives indicated SRS as a top-two spot to re-establish the national security mission in a "modular" way, to use the words of U.S. Sen. Jack Reed, D-R.I.

Reed is a member of the Senate Armed Services strategic forces subcommittee.

Gordon-Hagerty said members of SRS, the New Mexican lab and the former Rocky Flats Plant near Denver – a pit production site prior to an FBI and Environmental Protection Agency raid – are involved in the ongoing data review.

Once the NNSA administrator is briefed on the engineering analysis results, she will meet with Ellen Lord, the U.S. Department of Defense's under secretary of defense for acquisition and sustainment.

Gordon-Hagerty on Wednesday said she has already made plans to meet with Lord.

Gordon-Hagerty told the strategic forces subcommittee she will, after rendezvousing with Lord, then make her recommendation to the deputy secretary of energy.

"We're trying to meet the NDAA guidelines or direction of 11 May," the NNSA leader said.

It is unclear if Gordon-Hagerty's recommendation will be published the same day.

Pit production at SRS would require a new facility at the Site or the repurposing of the Mixed Oxide Fuel Fabrication Facility, according to the NNSA's 2017 analysis.

Approximately 800 longterm jobs are expected to be created if the production mission is brought to the Site.

https://www.aikenstandard.com/news/nnsa-chief-decision-regarding-pit-production-location-expected-in-may/article 4d6be228-2861-11e8-bd1a-9f4465edb390.html

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## **US COUNTER-WMD**

The Straits Times (Singapore)

## US Missile Defence System Mars Moscow's Ties with Tokyo, Russian Foreign Minister Tells Japan

By Walter Sim

March 21, 2018

TOKYO - Japan's planned deployment of the American Aegis Ashore anti-missile system is an obstacle to Moscow improving ties with Tokyo, Russian Foreign Minister Sergey Lavrov said on Wednesday (March 21).

The rollout, which is slated for 2023, will inevitably affect Russia's national security directly, Mr Lavrov told a news conference in Tokyo after more than  $2\frac{1}{2}$  hours of talks with his Japanese counterpart Taro Kono.

Mr Kono, in turn, stressed to reporters that the land-based missile interceptor system will "purely be defensive and managed independently by our country" with the aim of improving Japan's capability against the North Korea threat.

"It will not pose any threat to neighbouring countries, including Russia," he said.

Moscow is claiming American overreach in the deployment that, it suspects, is part of a broader United States missile defence network being developed worldwide. It has been cynical of Tokyo's reassurances and believes that when push comes to shove, Japan will yield control of the system to its major ally, the US.

In February, two months after Japan formalised its decision on the Aegis system, Moscow signed a decree to allow its military to use a civilian airport on a disputed island that is controlled by Russia and claimed by Japan - in what is seen as a diplomatic tit-for-tat.

This law could pave the way for a Russian air force unit to be deployed on the Iturup/Etorofu island, which is the largest of four islands at the centre of a longstanding bilateral row.

The islands, north of Hokkaido, are known to Japan as the Northern Territories and to Russia as the Southern Kurils. They were seized by the former Soviet Union in the final days of World War II. The spat has stopped Japan and Russia from signing a peace treaty until today, more than 70 years after the war.

Mr Kono and Mr Lavrov on Wednesday pledged that their countries will cooperate to counter what they framed as "non-traditional security threats". They announced a series of "strategic dialogues" to commence next month (April) in Moscow at the vice-foreign ministerial level.

Engaging in dialogue over such issues as North Korea, Mr Kono said, "is a crucial step to deepen our mutual understanding, so that a peace treaty can eventually be reached".

Tokyo was Mr Lavrov's first diplomatic stop after Russian President Vladimir Putin's big win in Sunday's presidential election. The visit was meant to lay the groundwork for a summit between Mr Putin and Japanese Prime Minister Shinzo Abe at the end of May.

Mr Abe has invested considerable effort in wooing Mr Putin, with the two leaders having had more than 20 face-to-face meetings. This led to what both nations framed as a "breakthrough" in December 2016, when they struck a deal to allow visa-free visits for Japanese descendants to pay respects at their ancestral graves.

Significantly, they also agreed to conduct joint economic activities on and around the disputed islands. But progress has been slow.

For one thing, both countries have yet to iron out the details of a special arrangement such that the projects - in five areas including tourism and aquaculture - will not compromise their respective legal positions on their sovereignty over the islands.

Dr James Brown, an expert in Russo-Japan ties at Temple University Japan, expressed pessimism given Moscow's readiness to play hard ball.

"They have put the cart before the horse, by agreeing first on the types of projects and not their legal basis," he said.

Of Japan's fine balancing act between the US and Russia, Dr Brown said: "It is very difficult to fully detach the Russia-Japan relationship from the Russia-US relationship.

"The Aegis Ashore will go ahead, and will be a point of continued friction between Russia and Japan."

http://www.straitstimes.com/asia/east-asia/us-missile-defence-system-mars-moscows-ties-with-tokyo-russian-foreign-minister-tells

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Military.com (San Francisco, Calif.)

#### Marines Developing JLTV Air-Defense System Armed with Laser Weapon

**Bv Matthew Cox** 

March 21, 2018

The Marine Corps is putting together a new, mobile air-defense weapon system that's mounted on a Joint Light Tactical Vehicle and could be armed with lasers to bring down enemy threats from above.

Marine Lt. Gen. Robert Walsh, deputy commandant for combat development and integration, talked about the Ground Based Air Defense Future Weapon System at a hearing Tuesday before the Senate Armed Services Committee's subcommittee on seapower.

Lawmakers are worried that the U.S. military's ground forces do not have modern air-defense systems capable of defeating aerial threats from adversaries such as Russia and China.

"Ground forces have not experienced enemy [air] attacks since the Korean War; however, I am concerned that manned and unmanned aircraft, rockets, artillery and missiles pose an increasing danger to Marine units and installations worldwide," said subcommittee chair Sen. Roger Wicker, R-Mississippi. "The Marine Corps has not updated its air-defense capability since the early 1990s."

Air defense is a key priority for the Corps as well as the Army, and Wicker made a point of stressing that neither service should be tackling this problem alone.

"I understand that the Army faces many of the same challenges," he said. "This subcommittee believes that the two services should work together to meet similar requirements."

Wicker wanted to know why short-range efforts have been progressing more quickly than a system designed to defeat medium-range threats.

Walsh said that the Marine Corps has been focused on countering threats from unmanned aerial systems -- a preferred weapon of extremists in the Middle East -- but is now starting to shift focus to longer-range threats such as aircraft and cruise missiles.

The Corps is developing the Ground Based Air Defense Future Weapon System, which is mounted on a JLTV and features the same radar system that the Army is using for short-range air defense, Walsh said.

The fiscal 2019 budget includes \$607 million to procure 1,642 JLTVs. Over the course of the program, the Corps intends to replace roughly one-third of its Humvee fleet with the JLTV.

The JLTV-based system relies on a Stinger missile for a "kinetic kill" capability but will feature an electronic warfare capability as well, Walsh said.

"We also have a developmental program on a laser, to be able to put a laser on it," he said. "We are currently testing that with the opportunity to rapidly deploy that and demonstrate that capability."

The longer-range capability has proven to be a challenge, Walsh said, adding that the Marines have budgeted research and development money into a joint effort with the Army.

"We used to have Hawk [missile] batteries that had this longer-range missile capability that we don't have," he said.

Over the next year, the Marine Corps plans to look to industry to see what systems are available for a demonstration, Walsh said.

"Getting something early and demonstrating that would get the air-defense community moving toward that higher-end capability quicker," he said.

https://www.military.com/defensetech/2018/03/21/marines-developing-jltv-air-defense-system-armed-laser-weapon.html

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The Washington Free Beacon (Arlington, Va.)

## U.S. Lacks Defense against Hypersonic Missiles Fired From China and Russia, General Warns

By Bill Gertz

March 21, 2018

The United States lacks defenses against Chinese and Russian hypersonic missiles and needs to speed up work to counter the threat, the commander of the Strategic Command told a Senate hearing Tuesday.

"Both Russia and China are developing hypersonic capabilities," Air Force Gen. John Hyten, commander of the Omaha-based Strategic Command said. "We've watched them test those capabilities. So both Russia and China are aggressively pursuing hypersonic capabilities."

Hyten explained that hypersonic missiles are launched atop ballistic missiles and then fly at ultrahigh speeds along a depressed trajectory like a cruise missile or aircraft. They can be armed with either nuclear or conventional warheads and are difficult to counter.

"It goes up into the low reaches of space and then turns immediately back down and then levels out and flies at a very high level of speed. That's a hypersonic weapon," he said.

Asked by Sen. James Inhofe (R., Okla.) if the military has defenses against the hypersonic missiles, Hyten said there are no current defenses against the missiles that travel faster than 7,500 miles per hour.

"Our defense is our deterrent capability," Hyten said. "We don't have any defense that could deny the employment of such a weapon against us, so our response would be our deterrent force which would be the triad and the nuclear capabilities that we have to respond to such a threat."

The triad is the combination of land-based and sea-based nuclear missiles and nuclear bombers.

Hyten testified before the Senate Armed Services Committee that adversaries are developing hypersonic missiles that will be deployed "in the next few years."

China has conducted several tests of a hypersonic glide vehicle that is used to "defeat missile defenses," and Russia's hypersonic glider is maneuverable and one of six new strategic weapons announced recently by Russian leader Vladimir Putin, Hyten said.

"As our competitors continue to move fast in this area, we must retake the initiative and commit the necessary resources to develop and field hypersonic conventional weapons," Hyten said.

The general said the United States is ahead of China and Russia in some areas of hypersonic technology but lag behind in others.

"As a whole, I'd say it's a competition and it's a competition, I believe, that we should have a goal of winning that competition; not tying, not losing, but winning the competition," he said.

Hyten declined to discuss the areas where the United States is behind foreign competitors in the hypersonic arms race.

"The areas [we are] ahead in, we should accelerate further," he said. "We need to make sure that that becomes a priority for our nation."

The next step is a U.S. response "and the first way to respond to it is to be able to see the threat, which, right now, is challenging. So we have to build capabilities to see what the threat is as well," he said.

The military needs better sensors to track, identify, and trace the origin of such missiles.

"And right now, we have a challenge with that, with our current on-orbit space architecture and the limited number of radars that we have around the world," he said.

To better detect hypersonic missile attacks, the military needs a new space sensor architecture, Hyten said, something being studied by the Pentagon's Missile Defense Agency and the Air Force.

The current defense bill contains \$42 million for the new space sensor architecture prototype.

"I'm going to advocate, as I've advocated for the last 30 years, that we need to move into space and be able to build sensors to conduct both the characterization of these new threats that are appearing, as well as discriminate better and earlier the midcourse element of the threat that exists today," he said.

Asked about Chinese and Russian improving strategic capabilities, including hypersonics, Hyten said both militaries are "closing in" on U.S. advantages.

"I think we have stability with Russia on the nuclear side," he said. "We have advantage with China on the nuclear side. But they are gaining ground quickly, especially when you look at space and cyber."

U.S. efforts to counter the new high-speed missile threats are being addressed in the Pentagon's Missile Defense Review, the four-star general said.

"The [Defense] Department is pursuing hypersonic capabilities along several lines of effort, but we need to prioritize and accelerate development if we are to field our own capability in the near term," he said.

"New long-range, survivable, lethal, and time-sensitive strike capabilities, such as a hypersonic [conventional prompt strike] weapon, will allow the U.S. to achieve its military objectives in these environments," Hyten said.

"This new weapon class prevents adversaries from exploiting time and distance and provides additional response options below the nuclear threshold."

The Navy successfully tested a conventional hypersonic missile in November from a converted Ohio-class conventional missile submarine off the coast of Hawaii.

The objective of the rapid strike capability is to hit a target any place on earth in 30 minutes or less.

Hyten also testified in support of U.S. plans to deploy two low-yield nuclear weapons, one on a small number of current submarine-launched ballistic missiles, and on a new sea-launched nuclear cruise missile fired from ships or submarines.

Some Democrats expressed opposition to the new low-yield weapons. Hyten said they are needed to provide deterrent options for similar Chinese and Russian nuclear forces.

"The threat is from both Russia and China that drives the need for the sea-launched cruise missile," he said.

On Russia's deployment of a ground-launched cruise missile in violation of the 1987 Intermediaterange Nuclear Forces Treaty, Hyten said Moscow is continuing to produce and deploy the illegal SSC-8 missile.

Hyten also said he does not favor removing space from the Air Force and creating a new space corps.

Someday, we'll have a space corps or space force in this country," he said. "But I don't think the time is right for that right now."

President Trump said in a speech in California last week that he is considering creation of a new space corps based on the emergence of space as a new warfighting domain, along with cyber space.

Asked about the Iran nuclear deal and whether the United States should withdraw from the agreement known as the Joint Comprehensive Plan of Action (JCPOA), Hyten said the issue is for policymakers and that his role in assessing the accord is to examine Iranian compliance.

"And, as I sit here today, Iran is in compliance with JCPOA," he said.

"But JCPOA is about nuclear, and, from a command that is nuclear, that's an important piece to me because it allows me to understand the nuclear environment better," Hyten added.

"But it doesn't say anything about Iran as a global sponsor of terrorism or Iran as building huge numbers of ballistic missile to threaten their neighbors and potentially us someday."

"All of those will be the decision that a policymaker has to make, but my job is to look at the nuclear capabilities and make that recommendation, which I've done," he said.

On Russia's plan to use nuclear weapons early in a conflict, a policy that has raised fears of a nuclear conflict, Hyten said Putin announced in 2000 that Russian planned to develop and use low-yield nuclear arms.

http://freebeacon.com/national-security/u-s-lacks-defense-hypersonic-missiles-fired-china-russia-general-warns/

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Defense News (Washington, D.C.)

## Army to Get THAAD and Patriot Systems to Communicate within Two Years

By Ien Judson

March 19, 2018

WASHINGTON — The Army is planning to tie its two most critical air and missile defense systems together within two years, which is key to establishing a more effective, layered approach to AMD, according to the one-star general in charge of modernizing the service's AMD capabilities.

The approach could enhance the development of the Army's future AMD command-and-control system, the Integrated Air and Missile Defense Battle Command System — or IBCS.

The Terminal High Altitude System, or THAAD, and the Patriot medium-range air and missile defense system are the "bread and butter" of Army air and missile defense, Brig. Gen. Randy McIntire, the cross-functional team lead for AMD, told Defense News in a March 14 interview.

The Army has formed seven cross-functional teams, or CFT, to address its six modernization priorities, which will be nested within the service's new Futures Command expected to stand up in the summer.

McIntire is addressing AMD modernization from a variety of avenues including bringing Short Range Air Defense back into the force, but the CFT identified the importance of ensuring the service is getting everything it can out of its current systems, he said.

Getting THAAD and Patriot to talk to each other is extremely important in building better operational capability and a better picture of incoming threats.

Driving the effort are the forces in South Korea where both THAAD and Patriot are deployed. THAAD is also deployed in Guam, while Patriot units are spread wider around the world. Patriot deployments are considered to be among the most taxing and lengthy ones in the Army

"We've got THAAD and Patriot on the peninsula of Korea working side by side," McIntire said, so "how do we leverage those two systems so we can have better use of each one of those systems, missiles, and taking advantage of the great [AN/TPY-2] radar that is part of THAAD to increase the battlespace of Patriot?"

The CFT held an industry day bringing together key stakeholders including the U.S. Missile Defense Agency to work on the challenge of integrating the systems, McIntire said.

Before the CFT had a chance to take a fresh look at the possibility of integration, MDA didn't think it would be able to tie together the systems until the "out-years," he said, referring to years beyond the currently planned budget years.

But "we were able to reprioritize, and some of the things that we were doing to integrate THAAD and Patriot were four and five years away, but we kind of magnified the problem and were able to reprioritize three significant capabilities that we thought would be game-changers with those and actually bring them in about two years to 18 months sooner," he added.

The CFT did not want a niche system to solve the problem, and it determined the capability should inform the brains of the Army's future Integrated Air-and-Missile Defense — that is, IBCS, which is still in development.

The initial fielding of IBCS has been pushed back by several years because the Army wants it to tie together more systems on the battlefield than originally required. These systems include THAAD and its Indirect Fire Protection Capability that defends against rockets, artillery and mortars as well as unmanned aircraft systems and cruise missiles. Integrated Air-and-Missile Defense will ultimately replace Patriot.

By coming up with an interim solution that helps develop IBCS, the Army won't pay to tie together THAAD and Patriot — as well as other systems — twice, according to McIntire.

"We will be able to take that and, at the appropriate time, slide it into an increment of the future with IBCS," McIntire said.

"It's going to be a capability that we will use in the interim until IBCS comes online, but it's going to be with the IBCS style guide, for lack of a better term, and IBCS-informed," he added.

For example, the Army was trying to bring the second increment of IBCS online in fiscal 2022, but with some of the activities being conducted now over the next 18 to 24 months, it's possible the service could readjust the IBCS program so it is fielding Increment 3 by FY22 instead, McIntire said.

The Army would "be able to integrate it a lot faster because we are going to do a lot of the testing that needs to be able to make that work, so I think the idea is that we will be able to maybe go faster on the backside," he said.

https://www.defensenews.com/land/2018/03/19/army-to-tie-two-critical-air-and-missile-defense-systems-together-within-two-years/

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## **US ARMS CONTROL**

The Washington Post (Washington, D.C.)

## The U.S. Glimpses Possible Common Ground with Russia

By Paul Sonne

March 21, 2018

President Trump's pledge to pursue arms control talks with Russian President Vladi-mir Putin spotlights possible common ground between Washington and Moscow at a time of extreme discord and offers a remote chance that the two leaders could revive Cold War-era pacts that have broken down steadily in recent years.

The remarks highlighted what appeared to be a rare and possibly ephemeral opening in a relationship that has all but shut down, owing to Russia's intervention in Syria and Ukraine and its subsequent interference in the 2016 U.S. presidential campaign.

For the past month and a half, the United States and Russia have been touting nuclear weapons plans in what to many has seemed like a throwback to a bygone era, when the nations were in a race to develop the deadliest weapons in the world with few signs of any limits.

Six weeks ago, the Trump administration detailed plans to introduce two new types of nuclear weapons to the U.S. arsenal in response to Russia's nuclear force. At the time, the administration also affirmed a vast modernization of U.S. nuclear weaponry that President Barack Obama approved to the tune of an estimated \$1 trillion over 30 years.

Putin responded a month later by announcing that Russia was developing its own weapons, including a nuclear-propelled cruise missile and an underwater nuclear drone. He boasted that the arms could penetrate U.S. missile defenses, which Russia has long derided as a threat to its ability to conduct a retaliatory strike in the event of a nuclear war.

Some interpreted Putin's show as a veiled entreaty for new arms control negotiations with the United States, talks that the Kremlin has long considered a calling card to revitalize relations with the White House. The Russian leader quickly followed up by giving an interview to NBC's Megyn Kelly in which he left no doubt that Russia stood ready to hold arms control talks with the United States.

Trump has long been interested in participating in such negotiations, telling The Washington Post in 1984 that he wanted to be the U.S. point person in nuclear arms limitation talks with the Soviets.

White House press secretary Sarah Huckabee Sanders cautioned that no specific plans for such talks have been made, despite Trump's statements that they would be forthcoming.

"But we want to continue to have a dialogue with Russia, continue to talk about some of the shared interests with them, whether it's North Korea or Iran and, particularly, as the president talked about today, slowing the tensions when it comes to an arms race," she said at a news conference.

It's unclear how much substantive progress Trump could make with Putin on any arms control agreement in an atmosphere in which the broader U.S. political establishment has grown to mistrust his interactions with the Russian leader, including his decision to congratulate Putin on winning what was widely considered an unfree presidential election.

Even before relations between Washington and Moscow deteriorated, Obama had to sign off on a vast overhaul of the U.S. nuclear arsenal to secure approval from Republicans in Congress for the arms control pact he brokered with Russia.

The United States and Russia could potentially benefit from a revitalization of arms control deals that have frayed in recent years. Russia has been modernizing its nuclear forces and overhauling its military, but a sluggish economy has prevented it from substantively increasing its defense budget, which remains about 10 times smaller than that of the United States.

The Trump administration has bolstered military spending after negotiating an end to congressional budget limits, but a changeover of party control in the House or the Senate could reverse that trend and possibly roll back the nuclear overhaul. Already, prominent Democrats have questioned the addition of new weapons to the U.S. nuclear arsenal and elements of the modernization plan that Obama approved.

Defense Secretary Jim Mattis said in testimony to Congress in February that the weapons the Pentagon is developing will give U.S. diplomats leverage in negotiating arms control agreements with Russia, suggesting that the Pentagon also would like to see the burgeoning arms race curtailed.

"Arms control is a vehicle by which the United States and Russia can limit their competition and keep it within certain constraints," said Steven Pifer, a retired U.S. diplomat specializing in Russia and Ukraine who is now a nonresident senior fellow at the Brookings Institution. "You want to keep the strategic nuclear competition within certain limits. An open arms race doesn't benefit either side."

Although Washington and Moscow may have reason to revitalize their arms control commitments, any breakthrough could be stymied by high levels of distrust between the two governments, resulting from what the U.S. intelligence community called a Kremlin-ordered campaign to influence the 2016 presidential campaign in favor of Trump.

#### Years of accusations

For years, the United States and Russia have been pulling out of arms control treaties and accusing each other of violating them.

In 2002, the United States withdrew from the Anti-Ballistic Missile Treaty, which limited missile defense systems, on account of the George W. Bush administration's plans to step up missile defenses after the attacks of Sept. 11, 2001. Putin has said that decision began the breakdown of arms control agreements.

Five years later, Russia suspended the Treaty on Conventional Armed Forces in Europe, or the CFE Treaty, which limited the deployment of certain categories of military equipment by NATO states and Russia on the continent. Russia later stopped participating.

Since then, the United States and Russia have accused each other of violating the Intermediate-Range Nuclear Forces Treaty, or INF Treaty, which bans the deployment of missiles with ranges from 500 to 5,500 kilometers.

The United States and Russia traded barbs over compliance with the Treaty on Open Skies, which governs military surveillance overflights, and NATO has said Russian military exercises are violating the Vienna Document, a pact that sets out transparency standards for military operations and exercises.

The only relatively recent arms control breakthrough between Washington and Moscow came almost a decade ago, during the days of the "reset" in 2010, when the Obama administration negotiated the New START Treaty with then Russian President Dmitry Medvedev. The treaty, which limits strategic nuclear arms, expires in 2021 but can be extended automatically for five years if the presidents of both countries sign.

When Putin brought up the idea of extending the New START Treaty during a call with Trump in the weeks after the inauguration, Trump lashed out at the pact, according to a Reuters report at the time. The U.S. president has said it is one of many bad deals the Obama administration negotiated for the United States, including the Iran nuclear pact.

'Low-hanging fruit'

U.S. officials said they wouldn't entertain the idea of new arms control agreements with Russia until two things happened: They wanted to roll out the administration's new nuclear weapons policy and confirm that both Washington and Moscow had met the limits of New START. Both occurred in February.

Now the Trump administration must decide whether it's willing to conclude any new arms control deals with Russia, or extend existing ones, while Moscow is violating treaties currently on the books.

Some lawmakers and experts have said the administration should refuse to renew New START until Russia comes back into compliance with the INF Treaty. Others say Washington should agree to extend New START, regardless, if only to retain a last bedrock of arms control framework and continue an inspections regime that the militaries of both countries find beneficial.

Trump could agree to the New START Treaty's extension as a "low-hanging fruit" that satisfies both sides, said Olga Oliker, director of the Russia and Eurasia Program and the Center for Strategic and International Studies in Washington.

"Everyone is in compliance with it," she said. "It's a great thing because it maintains verification mechanisms that we've had for decades."

The administration could try to negotiate controls on in other areas, such as Russia's supply of smaller nonstrategic nuclear weapons. Moscow has long refused to negotiate any arms control agreement covering them. The Trump administration's new nuclear weapons policy calls for the development of a low-yield warhead that can be launched from submarines.

The Trump administration conducted "strategic stability" talks with Russia last year that were designed to lay the groundwork for broader arms control negotiations. But Russia postponed the most recent meeting early this month in retribution for the United States' cancellation of talks on cybersecurity.

Trump's commitment to Putin could restart those talks at time when relations between Washington and Moscow remain extremely tense.

"If arms control is lost as a result of the downturn in this relationship, it's going to cause greater problems for a long time to come," Oliker said.

But she cautioned that it wouldn't be a panacea for the broader relationship. "Counting on arms control to make us friends again? I wouldn't."

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The Hill (Washington, D.C.)

## Saudi Energy Deal Push Sparks Nuclear Weapon Concerns

By Rebecca Kheel

March 18, 2018

Nuclear nonproliferation advocates are sounding the alarm about a potential nuclear energy deal between Saudi Arabia and the United States, saying the exceptions the kingdom is seeking could lead to nuclear proliferation in a volatile region.

At issue is a deal that would allow the United States to sell nuclear reactors to Saudi Arabia. The Trump administration has already started negotiations, with Energy Secretary Rick Perry reportedly meeting with senior Saudi officials in London last month.

Such deals, known as "123 agreements" after the section of the law that requires them, allow for transfers of nuclear material, equipment or components from the United States to another nation if the other country commits to a set of nine nonproliferation criteria.

Saudi Crown Prince Mohammed bin Salman is visiting Washington next week and is sure to press President Trump on the issue.

But comments the crown prince made this week that Saudi Arabia would develop a nuclear bomb "as soon as possible" if Iran does are raising red flags for lawmakers who were already skeptical of the kingdom's intentions.

"Saudi Arabia's crown prince has confirmed what many have long suspected — nuclear energy in Saudi Arabia is about more than just electrical power, it's about geopolitical power," Sen. Ed Markey (D-Mass.) said in a statement. "The United States must not compromise on nonproliferation standards in any 123 agreement it concludes with Saudi Arabia."

When the United States entered into a 123 agreement with the United Arab Emirates (UAE) in 2009, the UAE voluntarily agreed to prohibitions on enriching uranium or reprocessing spent fuel to produce plutonium — essential steps in producing nuclear weapons.

That agreement has become known as the "gold standard" that nonproliferation advocates say should be part of all 123 agreements.

But Saudi Arabia has indicated it will not accept the "gold standard" because of its rivalry with Iran. The Iran nuclear deal limits uranium enrichment activities but does not prohibit them entirely.

Mohammed's interview with "60 Minutes" this week stoked concerns that Saudi Arabia would use its nuclear program to counter Iran.

"Saudi Arabia does not want to acquire any nuclear bomb, but without a doubt, if Iran developed a nuclear bomb, we will follow suit as soon as possible," he said in a clip released Thursday.

Ali Shihabi, founder of the Arabia Foundation, a D.C. think tank funded by corporate donors in Saudi Arabia, said that the kingdom's main goal is economic. Saudi Arabia needs to diversify its fuel sources as oil exports drive its economy, but domestic oil consumption is expected to match production in 20 to 25 years.

Still, Shihabi acknowledged that "Iran is the shadow hovering over anything."

"The government of Saudi Arabia is not going to accept, in my view, terms that are worse than what America's adversary accepted," he said.

He argued the United States is better off making the deal with Saudi Arabia with some nonproliferation concessions, rather than not making a deal and watching Saudi Arabia get reactors from another potential supplier, like Russia. That would damage the U.S.-Saudi relationship, eliminate U.S. business opportunities and gives the United States less oversight of nuclear technology in the Middle East, he said.

But Kingston Reif, director for disarmament and threat reduction policy at the Arms Control Association, said comparing the Iran deal and a potential deal with Saudi Arabia is inaccurate. Iran already had the ability to process uranium before the deal, which isn't a nuclear cooperation agreement, he said.

Reif also argued Saudi Arabia's ability to do business with other countries doesn't mean United States should lower its standards. The United States has the leverage to make Saudi Arabia adhere to the gold standard, he added, since countries want the U.S. to approve of their nuclear programs.

"Curbing the spread of nuclear weapons and the technology to make them is strongly in the U.S. national interest, especially when talking about the Middle East, which is plagued by various security competitions," Reif said, adding that three of the last four 123 agreements contained legally or politically binding prohibitions on enrichment and reprocessing.

Still, Reif fears that the Trump administration will give in to Saudi Arabia because of its desire to maintain a good relationship with the Saudis, revitalize the U.S. nuclear industry and provide a counterweight to Iran.

Reif encouraged Congress, which will have 90 days to block the agreement once it's submitted for review, to constrain any agreement that doesn't contain the gold standard. For example, he said, lawmakers could pass a resolution of approval that stipulates the agreement will be terminated if Saudi Arabia ever seeks to enrich uranium and reprocess spent fuel.

Lawmakers are increasingly concerned about the deal. Markey, a member of the Senate Foreign Relations Committee, sent a letter to the Trump administration in February ahead of Perry's reported London trip that included a dozen questions about the deal.

"A commitment to the gold standard is one way the United States ensures that nations with whom we engage in civil nuclear cooperation are living up the highest nuclear nonproliferation standards," he wrote. "And far from committing to the gold standard, Saudi Arabia has failed to take basic steps that would signal its commitment to use nuclear energy solely for peaceful purposes."

The letter asked for a response by March 15, last Thursday. A spokesperson for Markey told The Hill on Thursday afternoon that he had not yet received a response.

Sen. Dianne Feinstein (D-Calif.), a longtime nonproliferation advocate, said the administration "shouldn't even consider" the deal if Saudi Arabia doesn't agree to never pursue nuclear enrichment or reprocessing. Feinstein pledged to block any deal that doesn't include those provisions.

"There's no reason the United States should share sensitive nuclear technology if there is any risk of nuclear proliferation in the region," Feinstein said in a statement to The Hill on Friday. "If the administration agrees to a nuclear agreement that moves Saudi Arabia closer to obtaining a nuclear weapon, I will do everything I can to block it."

A House Foreign Affairs subcommittee is scheduled to hold a hearing on the potential agreement Wednesday, while Mohammed is still in town. Outside experts are slated to testify.

Rep. Ileana Ros-Lehtinen (R-Fla.), chairwoman of the subcommittee, said she expects the hearing to cover the status of Saudi Arabia's nuclear plans, the implications of a deal without the gold standard and legislative options to increase congressional oversight "so that the U.S. can ensure national

security interests always take precedence over political or commercial considerations in any future nuclear agreement."

"The administration has been moving full speed ahead on its negotiations with Saudi Arabia regarding a potential 123 nuclear cooperation agreement, and unfortunately, Congress has been left mostly in the dark," she said in a statement Friday. "The potential ramifications, including proliferation and the easing of enrichment and reprocessing restrictions, highlight the need for long-needed reforms to the outdated congressional review process."

http://thehill.com/policy/defense/378868-saudi-energy-deal-push-sparks-nuclear-weapon-concerns

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The Los Angeles Times (Los Angeles, Calif.)

# Pompeo May Be Even More Hawkish on Iran than Trump, a Bad Sign for the Iran Nuclear Deal

By Tracy Wilkinson and Brian Bennett

March 16, 2018

The United States hopes the threat will pressure the Russians back into complying with the Cold War deal.

President Trump's nomination of Mike Pompeo as secretary of State probably augurs the end of the 2015 accord that has blocked Iran from building nuclear weapons, an agreement praised by world powers but detested by Trump — and by Pompeo, a notable hawk on the Islamic Republic.

Trump has set a May 12 deadline to withdraw from the Iran nuclear accord unless European allies "fix" it, a prospect that appears unlikely. The president also has agreed to meet in May with Kim Jong Un to try to persuade the North Korean leader to surrender his already large nuclear arsenal, which seems even more remote.

Juggling two powerful adversaries in torturous nuclear diplomacy would stress any White House, but Trump will grapple with Iran and North Korea with a newly reshuffled foreign policy and national security team and a thin bench of experts in a hollowed-out State Department.

In Pompeo, the president will get a bellicose secretary of State who, while serving in Congress in 2014, called for breaking off talks with Tehran and launching hundreds of airstrikes instead against its nuclear facilities — not unlike Trump's vow last year to unleash "fire and fury" against North Korea.

Several diplomats say Trump will have a hard time coaxing North Korea to conclude a nuclear deal if he has just abandoned one with Iran that was unanimously approved by the United Nations Security Council and is closely monitored by U.N. nuclear inspectors — who have found no Iranian violations.

Like the president, Pompeo long has complained that the Obama administration signed a deeply flawed agreement, one Trump calls "the worst deal ever."

In the critics' view, the U.S. should not have agreed to any time limits, known as sunset clauses, in the deal. Most importantly, some nuclear restrictions will expire in 2030, and the opponents say Iran can then again push for a bomb.

Critics also say the exhaustive negotiations — which sought to prevent Iran from designing, building or acquiring nuclear weapons — should have included other Iranian threats, including its ballistic missile program and its support for militant groups in the Middle East.

But Trump will face sharp opposition from U.S. allies and other members of the U.N. Security Council if he unilaterally quits the accord. It could put the U.S. in violation of a U.N. resolution and create global friction if Washington imposes new sanctions on Iran.

In a bid to make Trump's case, the State Department director for policy planning, Brian Hook, will lead a U.S. delegation to the International Atomic Energy Agency in Vienna for meetings Friday with the five other world powers who signed the deal, plus Iran. The IAEA is the U.N.'s nuclear watchdog agency.

Hook may meet separately with Iran's deputy foreign minister, Abbas Araghchi, who is leading the Iranian side. On Wednesday, Araghchi told a parliamentary committee in Tehran that Iran would quit the deal if Trump does, raising fears that Iran would then try to restart its nuclear program.

With the May deadline fast approaching, advocates for keeping the deal have dialed up their warnings.

"If we walk away, we walk away alone," said William Burns, former deputy secretary of State who led 2013-14 back-channel meetings with Iran that helped pave the way for talks in Vienna that ultimately sealed the deal in July 2015.

"Iran would feel unconstrained over time" to rebuild its nuclear infrastructure, said Burns, who now heads the nonpartisan Carnegie Endowment for International Peace. "That door would be open to them, and it would be hard to re-create the diplomatic effort" that brought world powers together to forge the deal.

The Iran deal "has been a great success in terms of global security, and we should defend it," agreed Simon Gass, Britain's lead negotiator in the nuclear talks and a former ambassador to Iran.

"If the U.S. walks away, those who would be the happiest are sitting in the Kremlin," Gass said, because it would drive a wedge between Washington and its allies in Europe.

Trump fired Secretary of State Rex Tillerson on Tuesday, announcing his ouster on Twitter, and said he would nominate Pompeo, the CIA director, to replace him. Trump and Tillerson had clashed for months over Trump's pledge to scrap the Iran deal and add new sanctions on Tehran.

During heated Oval Office debates last summer, Pompeo advocated killing the deal, arguing that it had given an economic boost to Tehran that had allowed it to intervene more forcefully with armed proxies in Yemen, Syria and elsewhere.

"When you look at the Iran deal, I think it's terrible," Trump told reporters Tuesday. Tillerson, he said, "felt it was OK."

Pompeo, in contrast, has expressed views more hawkish than Trump's. As a Republican tea party member of Congress from Kansas from 2011 to 2017, he called for the ouster of the theocracy that has ruled Iran for nearly four decades.

In 2014, as the Iran negotiations moved into their final months, Pompeo joined critics who demanded that the Obama administration break off the talks. A former Army officer, Pompeo also called for launching airstrikes, saying fewer than 2,000 bombing sorties could take out Iran's nuclear capabilities.

"This is not an insurmountable task for the coalition forces," he said at the time.

The following summer, when the accord was finalized, Pompeo bluntly mischaracterized its provisions. "This deal allows Iran to continue its nuclear program — that's not foreign policy, it's surrender," he said.

Last summer, as CIA director, Pompeo told the Aspen Security Forum that the nuclear deal "could stop a few centrifuges from spinning," referring to the devices used to enrich uranium for nuclear fuel. But, he added, the "challenge of the agreement is that it is short term. It ... covers only a narrow piece of the Iranian risk profile."

He dismissed Iran's compliance with the deal as "grudging, minimalist, temporary."

Under the accord, Iran was required to destroy or dismantle its nuclear infrastructure, ship out enriched uranium and allow strict monitoring and inspections by IAEA inspectors to make sure it does not cheat.

The IAEA has issued nine reports so far and none have found violations. U.S. intelligence agencies have agreed that Tehran is meeting its obligations, and that its ability to "race for a bomb" has been pushed far back.

In exchange, a web of U.N. economic sanctions were steadily lifted from Iran and the country was allowed to reenter the global market and banking systems.

As a candidate, Trump vowed to rip up the deal, and he has bitterly complained that a U.S. law requires him to periodically waive nuclear-related sanctions to confirm to Congress that Iran is in compliance.

When he last did so, on Jan. 12, Trump vowed to not do it again — and gave European allies four months to find a way to meet his concerns or he would pull out of the deal.

The process would be relatively simple because the nuclear accord is not a formal treaty. The U.S. signed it as part of an executive order by President Obama, so Trump would need take no formal steps beyond reimposing sanctions and announcing his decision.

It's possible other signatories to the deal could keep it alive without U.S. participation. It would require a "soft exit" to limit the effect of new sanctions so European companies and others could continue trading with and investing in Iran without fear of being shut out of U.S. markets. It also would require Iranian buy-in.

In theory, that could leave the door open for a future U.S. administration to rejoin the agreement.

Several British, French and German diplomats who visited Washington in recent weeks to meet with Trump administration officials expressed frustration with the president's ultimatum partly because it's not entirely clear what, if anything, would keep him in the deal.

They have proposed supplemental agreements to address key concerns — especially the sunset clauses — and say follow-on measures could be enacted without scuttling the existing deal.

But several diplomats left Washington convinced that the proposals would not satisfy Trump, who, they said, seems to have already made up his mind.

"The Europeans are starting to question [U.S.] predictability," said Angela Kane, a German diplomat who served as U.N. high representative for disarmament affairs during the Iran negotiations. "This is becoming a very difficult thing for Europeans to stomach."

Allies seeking to preserve the Iran deal say a U.S. withdrawal would benefit Iranian hard-liners who opposed negotiating with the West in the first place and wanted to preserve the nuclear program. Reinstating U.S. sanctions would give Tehran an excuse to blame the country's economic problems on America, analysts said.

But Trump is unlikely to get pushback from Pompeo, a kindred spirit when it comes to Iran.

Pompeo "has a long track record on Iran and has been quite hostile towards the Islamic Republic," said Reuel Marc Gerecht, a former CIA expert on Iran now at the Foundation for Defense of Democracies, a conservative think tank that opposed the nuclear deal.

Pompeo's "passion has only been heightened, not diminished, by his access" at the CIA, Gerecht added. "I expect he will aggressively fulfill the president's desire to have the deal renegotiated — or scrapped."

http://www.latimes.com/nation/la-fg-pompeo-iran-deal-20180316-story.html
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The Washington Post (Washington, D.C.)

## Corker Prediction: Trump Will Pull Out of Iran Nuclear Deal in May

By Karoun Demirjian

March 19, 2018

The chairman of the Senate Foreign Relations Committee is predicting that President Trump will not extend the United States' participation in the Iran nuclear pact past May — a development likely to please the deal's critics but throw into turmoil the international effort to keep Tehran's nuclear ambitions in check.

Sen. Bob Corker (R-Tenn.), the lawmaker most directly in touch with the Trump administration on matters concerning Iran, told CBS on Sunday that "right now, [the Iran deal] doesn't feel like it's going to be extended."

"I think the president likely will move away from it," he said, unless the White House and European leaders agree on a way to supplement the deal with harsher punitive actions if Iran ever seeks to develop a nuclear weapon.

Corker added that he did not think that pulling out of the deal would complicate the planned, "somewhat unorthodox" talks with North Korea, also expected to take place by the end of May.

Corker and Trump have had a mixed relationship, with the two coming to verbal blows in October. That was just a week before Trump decided not to certify that Iran was in compliance with the terms of the nuclear pact, despite assurances from the International Atomic Energy Agency and advisers such as Defense Secretary Jim Mattis that Tehran was holding up its end of the bargain.

Over the past several months, Corker has worked closely with national security adviser H.R. McMaster, Secretary of State Rex Tillerson and others to keep the president from fulfilling his campaign promise to rip up the Iran deal. But with Tillerson on his way out of the administration and McMaster possibly next on the chopping block, there are few left in the president's circle of trusted national security advisers who defend upholding the deal.

The recent nomination of CIA Director Mike Pompeo as Tillerson's replacement further suggests that hard-line critics of the pact are about to hold more sway in the administration.

The multilateral Iran deal works as a trade-off: In exchange for Iran keeping its nuclear ambitions in check, including submitting to regular international inspections of its facilities, the other countries and parties in the pact agreed to ease up on nuclear-related sanctions against Tehran. For the United States, upholding the bargain depends on the president, who must periodically agree to

waive the nuclear sanctions against Iran that remain part of U.S. law. The next waiver deadline is May 12.

Trump has been reluctant in the past to extend the waivers, and in January warned that Congress must "fix the deal's disastrous flaws — or the United States will withdraw." Corker has maintained, however, that Congress cannot "fix" the deal until the White House secures the buy-in of European nations, to keep the agreement intact.

Corker speculated that under pressure, the White House and European leaders may be able to strike a last-minute accord.

"As we get within two weeks of the May 12th date, that could change," he said of his prediction that Trump would back away from the agreement.

But when asked to predict whether he thinks Trump would pull out of the Iran deal on that date, Corker said simply: "I do. I do."

Corker would not say whether Pompeo would be installed as the new secretary of state by May. Confirmation hearings for Pompeo are expected to begin in April, but Corker warned that because it is an election year, things are "more partisan" and nominations could move through the Senate slowly.

Sen. Rand Paul (R-Ky.), a member of the Foreign Relations Committee, has pledged to oppose Pompeo's nomination, meaning that a Democrat on the 21-member panel will have to support Pompeo for the committee to recommend that the full Senate confirm him.

https://www.washingtonpost.com/powerpost/corker-prediction-trump-will-pull-out-of-iran-nuclear-deal-in-may/2018/03/19/a7ef5148-2b64-11e8-8688-e053ba58f1e4 story.html?utm term=.8c72300b7a66

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#### ASIA/PACIFIC

South China Morning Post (Hong Kong)

Abe's Nuclear Disaster: Why Has Japan Been Shut Out of North Korea Talks?

By Julian Ryall

March 18, 2018

After being sidelined by Washington and Seoul over historic talks with Pyongyang, Japan's blindsided leader Shinzo Abe is struggling to get his foot in the door

As the only country to have been attacked with nuclear bombs, Japan playing a key role in convincing one of its neighbours to drop its weapons programme would seem obvious. But the out-of-the-blue announcement from US President Donald Trump that he had accepted an invitation to talks with North Korean leader Kim Jong-un appears to have given Tokyo's input a new status: irrelevant.

While Prime Minister Shinzo Abe reacted to the news positively, his government has scrambled to save face. South Korean officials standing in front of the White House briefed the media on the breakthrough and before the fallout had even settled, the Japanese government had offered to donate hundreds of millions of yen towards a UN nuclear watchdog mission to the North. Abe

followed that up by saying he would travel to Washington to speak to Trump before his meeting with Kim, so he could emphasise Japan's position on issues likely to surface during the discussions.

In spite of Abe's apparent enthusiasm, it was clear that his role in the region had been eclipsed by Moon Jae-in, South Korea's president and the prime minister's ideological polar opposite. That Moon has assumed centre-stage in a geopolitical drama being watched around the world has compounded Abe's loss of face.

"It is hard to reach any conclusion other than Abe was completely blindsided by the announcement in Washington and that neither the US nor the South Koreans had thought of telling Tokyo," said Jeff Kingston, director of Asian Studies at the Tokyo campus of Temple University.

"[Abe] has been pushing hard against having talks for talks' sake; he has opposed engagement; he has called for maximum pressure to be exerted on the government there and he believed he was standing shoulder to shoulder with Trump. But he has just had the rug very publicly pulled out from under him."

Since Trump became president, Abe has bent over backwards accommodating his blunt complaints about having to defend Tokyo, making his trip to Japan a stress test for the prime minister. The aim was to try to remain Washington's top ally in East Asia and it appeared to work – until now.

Offering to support the International Atomic Energy Agency's inspections of nuclear facilities in the North was designed to limit the damage to Japan's diplomatic prestige and get Tokyo back on the inside, Kingston said, assuming the UN inspectors would be allowed in.

At the same time, Abe is wrestling a potentially devastating scandal involving the finance ministry and his wife.

The ministry admitted on Monday that it altered documents related to the sale of government land at a bargain price for a nationalistic primary school linked to Akie Abe, the PM's wife.

While the opposition has called for the Finance Minister Taro Aso to resign, the public's reaction has been muted, perhaps a sign that in times of regional tension, people prefer to see stability in leadership.

Abe's stand against the North has become something of a personal crusade, possibly making Moon and Trump reluctant to allow Japan the access and influence it had during the six-party talks on Pyongyang's nuclear programme a decade ago.

"In those discussions, Japan insisted on linking the nuclear question with a full and frank accounting for the Japanese nationals who were abducted by the North Koreans to train their spies," Kingston said. "Abe very closely identified himself with that agenda and it would be difficult politically for him to back down from that position now. If he insists that the abductees are a part of the negotiations with Pyongyang, and Trump senses that the issue might cause the discussions to break down, then I feel certain that it will be the Japanese leader who misses out."

But old habits die hard and the Japanese leader used his meeting on Tuesday with Suh Hoon, head of South Korea's National Intelligence Service, to reiterate that Tokyo wants a firm line to be taken with the North. Hoon described the talks as "excellent and meaningful". Though quite how meaningful Japan's role really is in an issue that has overshadowed the region for a generation is now under debate.

"There are those who say that we are seeing a diplomatic version of the 'Japan-passing' phenomenon we had in the trade and business sphere a decade or more ago as the US looked to China, but who really cares?" said Jun Okumura, a political analyst at the Meiji Institute for Global Affairs.

"What is important is that there is a strict quid pro quo between any easing of the sanctions and the rolling back of the North's nuclear weapons and missile programmes," he said.

But Abe is not ready to let the matter slide and government sources on Tuesday let slip they are exploring the possibility of a summit between Abe and Kim as a "new way of dealing with the North". The only problem is Japan has little to offer the North and presents no credible military threat to force Kim to the table. And the North is already frying a much bigger fish.

http://www.scmp.com/week-asia/geopolitics/article/2137382/abes-nuclear-disaster-why-has-iapan-been-shut-out-north-korea

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Xinhuanet (Beijing, China)

## Analysis: Historic U.S.-DPRK Summit May Not Yield Major Results, Say U.S. Experts

By Matthew Rusling

March 20, 2018

WASHINGTON, March 19 (Xinhua) -- Despite the fanfare around the upcoming U.S. summit with the Democratic People's Republic of Korea (DPRK), some U.S. experts have minimal expectations for the event.

After much heightened rhetoric between U.S. President Donald Trump and DPRK top leader Kim Jong Un over Pyongyang's nuclear weapons program, the two sides have agreed to hold a one-on-one meeting in the coming months, as Washington is pressing Pyongyang to abandon its nuclear weapons program, and has turned up the heat on the regime.

"We should have minimal expectations for this initial summit between Kim Jong Un and President Trump," Troy Stangarone, senior director with the Washington-based Korea Economic Institute, told Xinhua.

Rather, the one-on-one meeting -- the first time a sitting U.S. president has ever met with one of the Kim family -- may start off small and there are no guarantees that promises will be kept, analysts said.

"An ideal outcome would be if the two leaders were to agree on a set of principles or a framework that could be fleshed out in working level discussions that the two leaders could later endorse. If they are successful in reaching an agreement on principals, I'd expect there to be a series of interlocking summit meetings between the players in the region and at least one more Trump-Kim summit before final agreement is reached," Stangarone said.

In an initial summit, Trump will press Kim to commit to denuclearization and attempt to use flattery to bring Kim around to his point of view, Stangarone said, adding that the United States will also likely push for limits on DPRK missile programs.

"If the summit is in Pyongyang, I would expect Kim Jong Un to put on a lavish military parade and perhaps a running of the mass games to appeal to President Trump and put him in as persuadable mood as possible," Stangarone said.

As for Kim, his objectives for any meeting will be multifaceted, he said.

He'll be looking to ensure that the process moves forward so as to minimize the pressure on the regime going forward, Stangarone added.

At the same time, he'll be looking to ensure that any framework leaves him with room to maneuver and create an environment to be able to maintain his nuclear program, he added.

The DPRK may be willing to release prisoners and compromise on some issues, but is not likely to stop its nuclear program or agree to meaningful inspections, Brookings Institution Senior Fellow Darrell West told Xinhua.

"Having the nuclear program has been part of the country's DNA for several decades and it seems unlikely they will sacrifice their major bargaining chip," West said.

Some analysts also ponder what may happen if Pyongyang ultimately fails to halt its nukes program, as Trump now has a hardline inner circle.

With Trump's recent sacking of several key administration officials, including former Secretary of State Rex Tillerson, experts are asking whether this will result in a more hawkish U.S. foreign policy.

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The Washington Post (Washington, D.C.)

## Southeast Asia Leaders Urge Tough Stance on North Korea

By Trevor Marshallsea, Associated Press

March 18, 2018

SYDNEY — Southeast Asian leaders and Australia's prime minister on Sunday called on North Korea to end its nuclear program and urged U.N. countries to fully implement sanctions against the country.

Leaders at the first summit of the Association of Southeast Asian Nations to be held in Australia issued a joint statement with the host country that also called for non-militarization and a code of conduct in the contested waters of the South China Sea, where China has become increasingly assertive.

ASEAN leaders also said they were working to provide humanitarian assistance for the continuing crisis involving Muslim Rohingya refugees fleeing Myanmar. Australian Prime Minister Malcolm Turnbull said Myanmar's leader, Aung San Suu Kyi, addressed the matter "comprehensively" in meetings Sunday.

On North Korea, the ASEAN-Australia joint statement urged North Korea to "immediately and fully comply with its obligations under all relevant United Nations Security Council Resolutions," and called on all countries to implement sanctions.

Turnbull went further at a closing news conference, saying ASEAN and Australia had affirmed their commitment to respond strongly over the "grave concerns we share about North Korea's reckless and illegal nuclear missile programs."

President Donald Trump and South Korean President Moon Jae-in, who are both planning to meet North Korean leader Kim Jong Un this spring, pledged last week to maintain "maximum pressure" on Kim's authoritarian regime and seek action to force him to give up his nuclear weapons.

Singapore's prime minister, Lee Hsien Loong, the current chair of ASEAN, said the bloc had been encouraged by negotiations for the summits and had "noted reports of North Korea's commitment to denuclearization and its pledge to refrain from further nuclear missile tests during this period."

On territorial conflicts with China, which like Australia is not a member of ASEAN, the statement said, "We emphasize the importance of non-militarization and the need to enhance mutual trust and confidence, exercise self-restraint in the conduct of activities and avoid actions that may complicate the situation."

China and the five countries that have conflicting territorial claims over the South China Sea — which include four ASEAN members — plan to negotiate a code of conduct for the busy waterway aimed at reducing the risks of armed confrontations in the contested areas.

Lee said this was an issue for all ASEAN countries as it was "a security and stability question" that would "affect all ASEAN countries if it goes wrong."

He also said ASEAN policy meant it was "not able to intervene and to force an outcome" over the Rohingya crisis, in which more than 700,000 refugees have fled to neighboring Bangladesh amid a Myanmar military campaign that the U.N. has called "ethnic cleansing."

But Lee said the matter was a cause of concern for all of ASEAN, whose members would be anxious "if there is any instability or any trouble" in fellow member countries.

Malaysian Prime Minister Najib Razak said Saturday that the crisis was no longer solely a domestic issue for Myanmar, with fleeing Rohingya potential targets for terrorist radicalization.

Turnbull said the Rohingya issue was discussed by the leaders "very constructively" Sunday. "Aung San Suu Kyi addressed the matter comprehensively at some considerable length herself," he said.

The ASEAN nations are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

https://www.washingtonpost.com/world/asia pacific/southeast-asia-leaders-use-australia-meet-to-talk-nkorea/2018/03/17/bf9eecf8-2a4d-11e8-a227-fd2b009466bc story.html?utm term=.267f4a679878

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VOA (Washington, D.C.)

### North Korea Nuclear Summits Planning Underway

By Brian Padden

March 19, 2018

SEOUL — Diplomatic efforts are intensifying to coordinate the logistics and agendas for expected North Korea summits with South Korea and then with the United States, to work out a deal to end the North's nuclear weapons program.

North Korean leader Kim Jong Un opened the door to nuclear disarmament talks by agreeing to an inter-Korean summit with South Korean leader Moon Jae-in, and extending an invitation to meet with U.S. President Donald Trump.

Kim agreed to discuss ending his country's threatening nuclear arms program which, in the past year, has accelerated efforts to develop an intercontinental ballistic missile (ICBM) that could target the U.S. mainland, and to hold off on further provocative weapons testing while talks are underway.

North's silence

President Trump's decision to agree to denuclearization talks by the end of May caught allies and adversaries by surprise. The Trump administration, however, has said that its hard-line "maximum"

pressure" campaign would remain in place until a deal is reached. Under Trump, the U.S. has led international efforts to impose increasing economic sanctions on the North and has stressed that military action is also a viable option to end the growing nuclear threat.

North Korea has not yet confirmed its participation in either summit, but South Korean Foreign Minister Kang Kyung-wha said on Sunday that the leadership in Pyongyang is still trying to formulate its response to Trump's sudden embrace of diplomacy.

"I think we were all quite surprised by the readiness of that decision. I think it was an extremely courageous decision on the part of President Trump. We believe the North Korean leader is now taking stock," said Foreign Minister Kang during a television interview in Washington with CBS's Face the Nation.

The South Korean foreign minister is not troubled by the fact that Kim Jong Un's commitment to engage in denuclearization talks has so far only been communicated through a high level South Korean envoy who met with the North Korean leader.

"The significance of his word is quite weighty in the sense that this is the first time that the words came directly from the North Korean supreme leader himself, and that has never been done before," said Kang.

## **Diplomacy**

Another indication that a U.S./North Korea summit is in the planning stages is that North Korean foreign minister Ri Yong Ho visited his Swedish counterpart Margot Wallstrom over the weekend for security talks. Ri's visit has generated speculation that Stockholm may host the Trump/Kim summit. Many analysts say Trump should seek a neutral summit site for both leaders to be on equal diplomatic footing, and to withhold a U.S. presidential visit to Pyongyang, one that would greatly enhance the legitimacy of the Kim government, until after significant denuclearization concessions are made.

South Korean media also reported that there was progress made toward releasing three Americans being held in custody in North Korea during the talks in Sweden.

In San Francisco over the weekend, top national security advisers from the United States, South Korea and Japan also met to discuss the "complete denuclearization of the Korean peninsula," according to South Korea's presidential Blue House.

U.S. National Security Adviser H.R. McMaster met with South Korea's National Security Office chief Chung Eui-yong and Japan's National Security Adviser Shotaro Yachi to focus on the expected April inter-Korean summit between Moon and Kim and the Trump/Kim summit in May.

The security advisers agreed to work together closely and "not repeat the mistakes of the past," according to a Blue House official.

The U.S. has not yet commented on the weekend meeting in San Francisco, but President Trump has been critical of deals made by past U.S. administrations that provided economic incentives to North Korea for pledges to dismantle its nuclear facilities that in the end were not kept.

Foreign Minister Kang agreed that there would "be no reward for dialogue" during her interview on Sunday.

#### Denuclearization groundwork

Officials in South Korea are making denuclearization a main focus of the inter-Korean summit, and hope to use the meeting between Moon and Kim to lay the groundwork for a possible deal that Trump can support.

North Korea could offer some immediate concessions that could demonstrate good faith without significantly reducing its nuclear capabilities.

"North Korea could offer to limit the number of missiles it is going to build and possess, which is very costly to them anyways to maintain, and ultimately they could limit the amount of nuclear material they have on hand," said Go Myong-Hyun, a North Korea analyst with the Asan Institute for Policy Studies in Seoul.

But the question remains what concessions the U.S. and South Korea might offer Pyongyang in exchange for an intermediate nuclear reduction step. The leadership in Pyongyang has reportedly been motivated to strike a deal in large part to ease the harsh U.S. led sanctions that are inflicting real economic pain.

Also this week the U.S. and South Korea are expected to announce that their combined military exercises will resume in April. The joint drills were postponed during the winter Olympics held in the South.

The resumption of the military exercises is not expected to raise regional tensions, as the North Korean leader has reportedly dropped his opposition to the joint drills, at least for now, to facilitate diplomatic talks.

https://www.voanews.com/a/north-korea-upcoming-meetings/4304947.html
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## **EUROPE/RUSSIA**

The Diplomat (Washington, D.C.)

**Russian Nukes: Fact vs. Fiction** 

By Dmitry Stefanovich

March 14, 2018

A closer look at what systems Russia actually has in place and in the pipeline.

2018 has already became a huge year for nuclear weapons-related developments all over the world, with a new U.S. Nuclear Posture Review published, the Russian and U.S. achievement of New START Central Limits, and the Doomsday Clock moved 30 seconds closer to midnight. Last but not least, Russian President Vladimir Putin rather unexpectedly showcased a number of new nuclear delivery vehicles during his annual (although postponed) Address to the Federal Assembly.

Russia remains a key figure for both worldwide nuclear arsenals as well as strategic stability, so it is important to understand the existing and future capabilities of Strategic Rocket Forces and their sea- and air-based companions.

#### Land

Regarding the land-based leg of Russian nuclear triad, the important part is rather evolutionary: deliveries of new Yars (SS-27 Mod 2) intercontinental-range ballistic missiles or ICBMs (as well as yet to be specified Yars-S) in road-mobile and silo-based variants have led to the complete rearmament of up to three missile divisions, with rearmament ongoing for three. The development of the Barguzin rail-mobile ICBM project has been finished, but deployment was canceled, which back in the day seemed a good sign, as this system was obviously excessive.

Another future system, the Sarmat (SS-X-29) heavy liquid-fuel ICBM faced a number of problems, but eventually reached the ejection test stage, which was deemed successful. This missile is said to be more powerful than the renowned Satan (SS-18). However, using it as delivery vehicle for multiple (10+) warheads looks like an unnecessary capability given the existing New START limits (700 deployed launchers and 1,550 deployed nuclear warheads).

Now we come to the "gliding cruise bloc" Avangard, a hypersonic glider previously known as "Project 4202" or "Yu-71." This type of payload, said to enter serial production, is capable of precise hits on any target, avoiding any existing or future missile defenses. The mating of Avangard and Sarmat (probably up to five gliders per missile, but likely less) seems the most appropriate way to use those new toys.

There were six ICBM test launches over 2017, related both to life extension and new payload types. As usual, the number was lower than previously announced; the same dynamics will probably remain in 2018.

Overall, Strategic Rocket Forces (RVSN) commander Sergei Karakayev remains committed to the 400 ICBMs at his disposal, but this number obviously includes nondeployed missiles, as otherwise there's no chance for Russia to get under New START limits. It's important to note that, given the rapid decline of the provisional "warheads-per-vehicle" coefficient over the last year, there's a chance that "un-deployment" for existing heavy ICBMs (the SS-18 and SS-19) had already taken place.

Coming back to Putin's nuclear weapons extravaganza, there's one more system possibly related to the ground leg, the nuclear-powered cruise missile (possibly 9M730, but no one knows for sure) with unlimited range. Its current status, research, and deployment schedules are yet to be disclosed (or not), but it is worth noting, that "examples" given during the address were the sea-launched Tomahawk and air-launched Kh-101. However, the launcher used during the test shown in the relevant video resembles several types of self-propelled launchers for tactical surface-to-surface and anti-ship missiles combined.

#### Sea

The sea leg of the nuclear triad launched several SS-N-23A Sinevas and a single SS-N-32 Bulava in 2017. The latter fact raises some concern, as we are yet to witness the possibility of salvo fires with this missile system. The Tula (Delta-IV class) nuclear-powered ballistic missile submarine (SSBN) returned from repairs to the Northern Fleet, while Bryansk of the same type (praised for a successful submarine-launched ballistic missile launch during strategic exercises by the fleet commander), left in turn for Zvezdochka to undergo work to repair, modernize, and restore its combat readiness.

Judging from the official photos, two Borei and 3 Delta-III SSBNs are ready for combat duty in the Pacific Ocean. The first 955A (Borei-A), Prince Vladimir, took to the water in 2017 as well. The original Borei class used the hulls from the Soviet reserve, so this ship is the first of entirely new construction. It's worth noting that over the past year there were a number of confirmations regarding plans to develop an even more advanced underwater cruiser, Borei-B, within the framework of the State Armaments Program-2027 (GPV-2027).

There were a number of disclosures and an eventual statement by Putin on new unmanned underwater "drones," namely Status-6 (or Kanyon) and Klavesin-2P (Harpsichord). It is rather strange that those two systems appeared in the same video and now are waiting for "public" designations together as well, because they obviously have different purposes. The main task of Klavesin-2P is believed to be expanding situational awareness for submarines, while Status-6 is an "intercontinental nuclear-tipped torpedo," capable of destroying coastal infrastructure and (at least

as shown in the video rendering) surface ship strike groups. It is yet to be understood how such a system, supposedly carrying a multimegaton nuclear warhead, should be factored into existing and future arms control agreements. Status-6 is a strategic system, so it seems appropriate to include this beast into some future START-type treaty, but one must keep in mind that long-range nuclear-tipped submarine-launched cruise missiles, which are still in service in the Russian Navy (and possibly will see a return for the U.S. Navy as well), are not covered by existing treaties, while having strategic implications.

#### Air

The most important "material" event for the Russia Air Force's Strategic Aviation over the last year happened in 2018: first "new" Tu-160 ("Blackjack") Heavy Bomber took its maiden flight. Of course one must remember that it was built using anunfinished body and it is yet to be understood which types (Tu-160M/160M1/160M2) will be produced and when, but this is an important milestone nevertheless. A contract for 10 planes was signed. A proper "future bomber," PAK DA is yet to be disclosed; the only specification we may be sure about is that it will be based on a "flying wing" scheme. There's word that some level of unification regarding avionics and weapons will be achieved for new Blackjacks and the PAK DA.

As for today, the main capability increase for the air leg of Russia's nuclear triad is being achieved by the modernization of existing Tu-160 and Tu-95MS (Bear-H) aircraft, so they can use Kh-101 cruise missiles. This long-range stealthy cruise missile (Kh-102 for nuclear-tipped variant) will remain the main armament for new heavy bombers as well.

Heavy bombers remain an important signalling tool. Blackjacks and Bears routinely visit faraway airspace and airdromes, serving as a reminder of Russian strategic capabilities. Also, they are the only part of the triad (Luckily) that has seen real action: there were at least 66 air-launched cruise missiles launched at Islamic State terrorists in Syria.

During Vladimir Putin's address, the air-based hypersonic weapons system "Kinzhal" ("Dagger") was demonstrated, and even said to have entered test service in the Southern Federal (sic) District of Russia. The easiest way to describe this system is an Iskander-M (SS-26 Stone) solid-fuel aeroballistic missile (probably a 9M723 derivative) mated to MiG-31 (Foxhound) interceptor. The system is capable of hitting ground and sea-surface targets, avoiding missile defenses, and serves as a good example how existing technological marvels may produce synergy. It is yet to be determined if the stated 2,000 kilometer range means the missile only or the system as a whole. Kinzhal does not fall under New START definitions for strategic air leg, as Foxhound is hardly a heavy bomber, and the missile is obviously not cruise-type, but this is an important topic for discussion among experts and policymakers.

#### Stability or Escalation?

Russia remains fully capable of destroying the United States, and, most importantly, U.S. Strategic Command capabilities are roughly the same. This balance remains a pillar of global peace, even under the currently strained relations between the great powers. Discussions on limited nuclear use will likely remain unrelated to reality; any nuclear use will lead to full-scale retaliation.

What is important is how other nuclear-weapons states may be factored into the equation. Russia has until recently insisted that any further reductions can't be achieved on a bilateral basis, while "third parties" have speculated that they can't "join the game" while Russian and U.S. arsenals are bigger by such a great margin. Another issue in the strategic arms debate is U.S. Missile Defense, an overhyped problem for both the domestic audience and some military experts in Russia. Showing a great number of new "penetrating" nuclear delivery vehicles must be seen not as "saber-rattling" but as a therapy for the audience both within Russia and abroad.

However, an unusual statement was made by Vladimir Putin during his interview for NBC, which may show a way to overcome both problems. He said that Russia is ready to continue the dialogue on existing and new strategic arms control treaties, and added that, given new weapons' missile defense penetration capabilities, "We no longer consider the reduction of ballistic missiles and warheads to be highly critical." He indicated that new strategic weapons also will be included in the grand total.

Such an attitude is yet to see implementation in detailed strategic stability talks (it's possible that this may have been a subject of the recently postponed meeting), but the parties seem ready for discussion. Future reductions may open the way for third parties to join the process – initially by agreeing to some level of transparency and confidence-building measures.

Military planners in every country think about waging and winning nuclear war, but testing their calculations remains superfluous.

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The Washington Post (Washington, D.C.)

## Poisoning of Russian Ex-spy Puts Spotlight on Moscow's Secret Military Labs

By Joby Warrick

March 18, 2018

During his last run for the presidency, in 2012, Russian leader Vladimir Putin startled U.S. military experts with a mysterious pledge to develop novel kinds of weapons to counter the West's technological edge. Armies of the future, he said, would need weapons "based on new physical principles" including "genetic" and "psychophysical" science.

"Such high-tech weapons systems will be comparable in effect to nuclear weapons," Putin said in an essay published in Rossiyskaya Gazeta, the Russian government's newspaper of record, "but will be more 'acceptable' in terms of -political and military ideology."

Exactly what Putin meant — and how any "genetic" weapon could square with international treaties outlawing chemical and biological warfare — remains uncertain. But what is now clear is that Putin's words unleashed a wave of activity across a complex of heavily guarded military and civilian laboratories in Russia.

Since the start of Putin's second term, a construction boom has been underway at more than two dozen institutes that were once part of the Soviet Union's biological and chemical weapons establishment, according to Russian documents and photos compiled by independent researchers. That expansion, which includes multiple new or refurbished testing facilities, is particularly apparent at secret Defense Ministry laboratories that have long drawn the suspicions of U.S. officials over possible arms-treaty violations.

Russian officials insist that the research in government-run labs is purely defensive and perfectly legal. But the effort has come under increased scrutiny in the wake of allegations of Moscow's involvement in the poisoning of a former Russian spy and his daughter in Britain. Both were sickened by exposure to Novichok, a kind of highly lethal nerve agent uniquely developed by Russian military scientists years ago.

"The big question is, why are they doing this?" said Raymond Zilinskas, a chemical and biological weapons expert with the James Martin Center for Nonproliferation Studies in Monterey, Calif. In a

newly released book, "Biosecurity in Putin's Russia," Zilinskas and co-author Philippe Mauger analyze hundreds of contract documents and other records that show a surge in Russian research interest in subjects ranging from genetically modified pathogens to nonlethal chemical weapons used for crowd control.

The analysis also tracks a simultaneous rise in sensationalist Russian claims that the United States is itself pursuing offensive biological weapons. Reports posted on state-sponsored news sites and amplified over social media have accused U.S. scientists of being behind recent outbreaks of the Zika virus as well as the Ebola epidemic in West Africa that began in 2014. In each instance, U.S. federal agencies marshaled a sizable response to counter or contain the outbreaks.

Such baseless claims could be viewed as part of a deliberate effort to "explain to their own people why they need to do this research," Zilinskas said in an interview.

A spokeswoman for Russia's Ministry of Foreign Affairs declined to answer written questions but forwarded a March 13 statement by Vassily A. Nebenzia, Russia's ambassador to the United Nations. Nebenzia denied any involvement by the Kremlin in the March 4 nerve-agent attack and suggested that it was the United States and Britain, not Russia, that were continuing to conduct illegal research to create "new toxic substances."

The research by Zilinskas and Mauger appears to bear out long-held concerns by the State Department, which has sharply criticized Russia in recent years over a lack of transparency in its military-related biological and chemical research. Since 2012, State Department officials have issued a series of reports faulting Moscow for refusing to open its military research laboratories to outside inspectors, and for failing to provide proof that it destroyed the highly lethal arsenals created by Red Army scientists in the years before the Soviet Union's collapse.

Thomas Countryman, an assistant secretary of state for international security and arms control during the Obama administration, said that even before Putin, U.S. officials questioned whether the Kremlin had owned up to its past "fully and transparently." But over the past six years, official distrust has grown as Moscow has embraced a more aggressive foreign policy that includes intimidation of Russia's neighbors and an unabashed support for a Syrian dictator who uses nerve agents to kill his own people.

"Moscow's full-throated defense of Syrian use of chemical weapons — and, especially, its apparent use of chemical agents in targeted assassinations — only add to the concerns," Countryman said.

#### Cold War pathogens

When the Soviet Union was dismantled in 1991, the Russian Federation became the heir to history's most dangerous arsenal of chemical and biological weapons.

During the Cold War, Soviet leaders spent vast sums to create weaponized versions of 11 different pathogens — including the microbes that cause anthrax, smallpox and the plague — while also experimenting with genetically altered strains. They created new classes of chemical toxins, such as Novichok, reportedly used in the attempted assassination of former Russian spy Sergei Skripal and his daughter, Yulia, in Salisbury, England.

A fourth-generation nerve agent more deadly than VX, Novichok is the stuff of legend. Russia denies that it ever researched or manufactured such nerve agents, but it arrested a former Soviet weapons scientist on charges of divulging state secrets after he published details about Soviet Novichok production in newspaper articles and a memoir.

The Soviet program was motivated in part by competition with the United States. Washington maintained its own stockpile of nerve agents during the Cold War and manufactured biological weapons until 1969, when President Richard M. Nixon dismantled the program. But the Kremlin

pressed ahead, convinced that the Pentagon was continuing bioweapons research in secret. Finally, in 1992, newly installed Russian President Boris Yeltsin acknowledged the existence of the secret program to U.S. officials and reported that all Soviet bioweapons had been destroyed.

In the years immediately following the Cold War, securing and dismantling Soviet weapons of mass destruction united Americans and Russians in a common cause. The United States helped Russia build incinerators for destroying its chemical weapons, and it sponsored programs that paired former Soviet bioweapons scientists with Western companies to keep them employed during the country's economic transition.

Such U.S.-Russian technical cooperation began to wane after Putin's election as president, and it collapsed after the Russian strongman won a second term in 2012. Yet, even during the Yeltsin years, Russia refused to grant -access to key weapons sites, including four biodefense laboratories run by the Russian military and perpetually sealed off from outside visitors, former U.S. officials said.

"We were always curious: Were they embarrassed to let us in because of the shape of their labs? Or were they hiding something?" said Laura Holgate, a senior adviser to President Barack Obama on preventing biological, chemical and nuclear terrorism.

Holgate allowed that Russia's reluctance also may have reflected a "paranoia about what the U.S. might be learning" about the country's military capabilities. In any case, she said, it became clear over time that Putin intended to preserve some Soviet-era capabilities for use in very specific situations. One of these was assassination — the killing of the Kremlin's opponents using methods that were dramatic, yet allowed Moscow to plausibly deny culpability. Another was crowd control: the use of controversial "knockout" chemicals to incapacitate individuals involved in hostage standoffs and other mass disturbances.

Officials familiar with Russia's program said the expanded activity at military labs may be partly aimed at honing those capabilities, giving Putin a variety of tools for dealing with adversaries while seeking to avoid the most flagrant violations of Russia's treaty obligations.

"That would be in line with behavior that we've been seeing for years," Holgate said.

#### Satellite evidence

Whatever the explanation, the buildup is striking. Data collected by Zilinskas and Mauger includes contract documents, Russian-language reports and aerial imagery that shed light on a dramatic expansion at the four secret Defense Ministry laboratories and numerous government-run civilian research centers across the country.

At one military complex at Yekaterinburg — the scene of an accidental release of anthrax spores in 1979 that is said to have killed 100 workers and townspeople — satellite images show clusters of newly built, warehouse-size industrial buildings dotting a walled campus. Renovations can be observed in older buildings that in Soviet times were factories for mass-producing bacillus anthracis, the bacteria that causes anthrax.

At the 33rd Central Research Test Institute at Shikhany — formerly a "closed" Russian military city on the Volga River in southwest Russia — records point to a recent spending spree for specialized equipment such as freeze-drying machines used in microbial production. Lab officials are shown soliciting bids for repairs to a wind tunnel, the type used in testing aerosolized bacteria and viruses, as well as upgrades to an area of bermed storage pens that the researchers say are probably intended for open-air testing involving explosives.

Wind tunnels and outdoor testing facilities can be used legitimately to develop defenses against biological and chemical attacks. Indeed, the Pentagon employs similar equipment at its biodefense

research facilities in Maryland and Utah. But Zilinskas and Mauger say the Russian expansion invites a higher level of scrutiny in light of the explicit calls by Russian leaders for work on novel kinds of weapons, including "genetic" ones.

After Putin's essay in 2012, several senior military officials, including the defense minister at the time, Anatoly Serdyukov, publicly endorsed Putin's appeal for new kinds of weapons and promised to start building them, the researchers note. Serdyukov specifically pledged to incorporate "genetic" research in creating Russia's next-generation arsenals.

"We noted the numerous high-level calls for the development of biotechnology-based weapons in Russia, without further specification," Zilinskas and Mauger write. At minimum, the vagueness of such statements potentially opens the door for any military official or "ambitious scientist" to lobby for a chance to develop a new kind of weapon — with the implicit blessing of top Russian officials, they write.

"When taken in conjunction with the [military's] apparent support for the development of 'genetic' weapons, these statements erode normative barriers toward biological weapons in Russia," the authors say.

https://www.washingtonpost.com/world/national-security/poisoning-of-russian-ex-spy-puts-spotlight-on-moscows-secret-military-labs/2018/03/18/9968efb6-2962-11e8-b79d-f3d931db7f68\_story.html?utm\_term=.bb91e952b4bb

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BBC News (London, United Kingdom)

# Turkish Police Seize Radioactive Material in Anti-smuggling Raid

**Author Not Attributed** 

March 19, 2018

Turkish police say they have seized 1.4kg (3lb) of radioactive material during an anti-smuggling operation in the capital, Ankara.

The element, known as Californium, was found when a car was searched in the Pursaklar suburb of the city, NTV news channel reported.

Four people in the car were detained.

Police said the suspects were believed to be part of a group that had planned to sell the material for more than \$70m (£49m).

It is not clear where the Californium originated.

The seized material was taken to the Turkish Atomic Energy Authority (TAEK) for further examination, NTV said.

Californium is believed to be produced only in the US and Russia. It is used in nuclear reactors, in portable metal detectors and also in medicine to treat some forms of cancer.

The element was first synthesized by a university laboratory in the US state of California in 1950.

http://www.bbc.com/news/world-europe-43463195

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The Scotsman (Edinburgh, Scotland)

# Nicola Sturgeon Says Scotland Ready for Chemical Weapons Attack

By Scott Macnab

March 15, 2018

Nicola Sturgeon has declared Scotland ready to deal with a future chemical weapons incident in the aftermath of the Salisbury attack.

The SNP leader branded the nerve attack on Russian double agent Sergei Skripal a "gravely serious issue" at First Ministers Questions today, but said emergency services were prepared for a similar incident on the streets of Scotland.

The First Minister said: "Scotland's preparedness to successfully respond to attacks of this nature - chemical biological, radiological attacks - have been developed over a number of years.

"In relation to the type of incident encountered in Salisbury, our excellent emergency services would be in a position to respond to the initial incident.

"But again as this investigation progesses and as more information comes to light, we will continue to discuss these matters with our emergency services, involving of course our resilience arrangements more generally, to make sure that they have the capability and the resources that is required."

Ms Sturgeon discussed the issue with Prime Minister Theresa May during talks in London yesterday, along with the national Security Advisor.

Ms Sturgeon also indicated that the Scottish authorities could play a role in stripping UK-based Russian oligarch of their assets and called for ongoing "dialogue and discussion."

There have been claims that shell organisations registered north of the border as Scottish Limited Partnerships (SLP) have been linked to money laundering and corrupt wealth.

She added: "If it is the case that further action is proposed in future, for example action that may include asset recovery of sanctions, then whereas that is the responsibility of the National Crime Agency in other parts of the UK, in Scotland, of course, it is the responsibility of Police Scotland and the Crown Office and the civil recovery unit in particular.

"So it is important that there is ongoing discussion and dialogue on these matters as well.

"Perhaps if there is any criticism to be made of the behaviour in the past of the UK, it's perhaps that there has not been a stronger response in the past in terms of the influence of Russian money.

"These matters all require to be looked at very very carefully."

Ms Sturgeon's assertions came as Britain's defence secretary said Russia should "go away and should shut up" as Britain prepares for retaliation from Moscow over its response to the Salisbury attack.

Gavin Williamson said relations with Russia were in an "exceptionally chilly" period and called for the whole country to unite behind Mrs May.

It comes as the Prime Minister visited Salisbury to speak to emergency services, members of the public and local businesses.

She will also receive a briefing from Public Health England.

Home Secretary Amber Rudd was chairing a meeting of the Government's Cobra emergencies committee in London to discuss the latest situation.

And Environment Secretary Michael Gove led a cross-governmental ministerial recovery group looking at support to go to the people and city of Salisbury in the aftermath of the incident.

Russian foreign minister Sergei Lavrov warned Moscow would expel British diplomats "soon" after Mrs May announced the biggest expulsion of Russian embassy staff since the Cold War.

During a visit to Bristol, Mr Williamson said: "It is absolutely atrocious and outrageous what Russia did in Salisbury. We have responded to that.

"Frankly, Russia should go away and should shut up."

Mr Williamson described Labour leader Jeremy Corbyn's response as "disappointing".

France publicly backed the Prime Minister's assessment that Russia was culpable for the attack and said it stands in solidarity with the UK.

Mrs May and French President Emmanuel Macron spoke by telephone at 7:30am to discuss the latest developments in the case.

The talks came after reports of a lukewarm response from the French government, but Paris later issued a statement saying there was "no other plausible explanation" for the poisoning.

Foreign secretary Boris Johnson confirmed the UK would submit a sample of the nerve agent to the Organisation for Prohibition of Chemical Weapons (OPCW) for it to carry out its own tests.

The US threw its diplomatic weight behind the UK, saying it "stands in solidarity with its closest ally".

Mr Johnson said the UK's response means Russia's intelligence capabilities in the country had been "basically eviscerated" for decades.

He claimed Russian President Vladimir Putin wanted to send a message to any defecting Russians that "you're going to die".

Announcing sanctions in the House of Commons, the PM said the attack on ex-spy Sergei Skripal and his daughter Yulia amounted to "an unlawful use of force by the Russian state against the United Kingdom".

Mrs May announced the suspension of high-level contacts with Russia, including a boycott of this summer's World Cup by Government ministers and members of the royal family.

She said Russian state assets will be frozen "wherever we have the evidence that they may be used to threaten the life or property of UK nationals or residents".

Twenty-three Russian diplomats identified as undeclared intelligence officers have been given a week to leave the UK, in the largest mass expulsion since 31 were ordered out in 1985 following the defection of double agent Oleg Gordievsky.

Mr Corbyn drew criticism for his stance on the Salisbury incident after his spokesman said the history of the use of information from UK intelligence agencies is "problematic" and refused to say that the Labour leader accepted the Russian state was at fault.

The spokesman's comments prompted Labour backbencher John Woodcock to table an Early Day Motion "unequivocally" accepting the "Russian state's culpability" for the attack, and supporting "fully" the statement made by Mrs May in the Commons.

https://www.scotsman.com/news/nicola-sturgeon-says-scotland-ready-for-chemical-weapons-attack-1-4706176

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Deutsche Welle (Bonn, Germany)

# German BND Spy Agency: North Korean Rockets Can Hit Europe

Author Not Attributed

March 19, 2018

The disclosure came in a closed-door meeting Germany's foreign intelligence agency held with members of the Bundestag last week, media report. North Korea has pursued missile and nuclear programs despite UN sanctions.

North Korean rockets tipped with a nuclear warhead now have the capacity to strike Germany and central Europe, a top official with the Federal Intelligence Service (BND) told lawmakers last week, German media reported on Sunday.

In a closed-door meeting, BND Deputy Director Ole Diehl told members of parliament there is "certainty" that North Korea could now "reach Europe and Germany with its missiles," according to the Bild am Sonntag newspaper, which first reported the briefing, citing participants.

Diehl also told lawmakers that the BND considers talks between North and South Korea a positive step. There was no immediate comment from the BND in response to the media reports.

Meanwhile, negotiations were set to convene in Finland between a senior North Korean official and representatives of the United States and South Korea, according to the South Korean Yonhap news agency. Over the weekend, officials from the US, Japan and South Korea met in Seoul to discuss the complete denuclearization of the peninsula.

Pursuing nuclear weapons

The talks are the latest in a series of diplomatic encounters ahead of a possible US-North Korea summit in May.

North Korea is pursuing its nuclear and missile programs despite sanctions imposed by the UN Security Council. Pyongyang has made no secret of its desire to develop missiles capable of striking the US mainland.

The North maintains that its programs are necessary to deter an invasion by the United States. The US denies such plans but maintains 28,500 troops in South Korea — a remnant of the Korean War, which never officially ended.

Tensions between North and South Korea have eased in recent weeks, in tune with North Korea's participation in last month's Winter Olympics in South Korea.

http://www.dw.com/en/german-bnd-spy-agency-north-korean-rockets-can-hit-europe/a-43030061

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Reuters (New York, N.Y.)

# France Urges Tough EU Approach on Iran to Save Nuclear Accord

By Robin Emmott

March 19, 2018

BRUSSELS (Reuters) - France urged the European Union on Monday to consider new sanctions on Iran over its involvement in Syria's civil war and its ballistic missile programme, as Paris tries to persuade Washington to preserve a 2015 nuclear deal with Tehran.

U.S. President Donald Trump has given the European signatories a May 12 deadline to "fix the terrible flaws" of the deal, which was agreed under his predecessor Barack Obama, or he will refuse to extend U.S. sanctions relief on Iran.

In response, the three European signatories - France, Britain and Germany - have proposed new EU sanctions targeting Iranians who support Syria's government in that country's civil war and Tehran's ballistic missile programme, according to a confidential document seen by Reuters.

"We are determined to ensure that the Vienna accord is respected," French Foreign Minister Jean-Yves Le Drian told reporters on arrival for talks with his EU counterparts, referring to the city where the 2015 deal was signed.

"But we must not exclude (from consideration) Iran's responsibility in the proliferation of ballistic missiles and in its very questionable role in the near- and Middle East," he said. "That must also be discussed to reach a common position."

The confidential document cites "transfers of Iranian missiles and missile technology" to Syria and allies of Tehran, such as Houthi rebels in Yemen and Lebanon's Shi'ite Hezbollah.

Iran's foreign ministry criticised Le Drian's comments, saying there could be no negotiation over what Iran says are purely defensive weapons.

"We were hopeful that after his recent visit to Tehran and negotiations with Iranian officials, he would understand the realities of the Islamic Republic's defence policies," Fars news agency quoted Iranian spokesman Bahram Qasemi as saying.

# **SANCTIONS**

The United States has unilateral sanctions on Iran over missile tests it says violate a U.N. resolution against developing weapons capable of carrying nuclear warheads.

Any EU-wide measures would be the first significant punitive steps since the bloc lifted broad economic sanctions on Iran last year following the 2015 accord to curb Tehran's nuclear ambitions for at least a decade.

But new sanctions would need the support of all 28 EU member states and could complicate new business deals with Iran.

Some EU countries, including Italy and Greece, are keen to rebuild a business relationship that once made the EU Iran's top trading partner and its second-biggest oil customer.

U.S. Senator Bob Corker, chairman of the Senate Foreign Relations Committee, said on Sunday he expected Trump to pull out of the nuclear agreement in May unless European governments "really come together on a framework".

EU foreign policy chief Federica Mogherini, who chaired the final stages of the nuclear negotiations between Iran and Britain, China, France, Germany, Russia and the United States, stressed that there was no formal EU position on new sanctions.

But other foreign ministers in Brussels hinted at discussions that diplomats said were underway in EU capitals.

"We have to explore all the possible measures to have the same type of pressure as we had in the nuclear dossier," Belgium's Foreign Minister Didier Reynders told reporters.

https://uk.reuters.com/article/uk-usa-trump-iran-eu/france-urges-tough-eu-approach-on-iran-to-save-nuclear-accord-idUKKBN1GV0V2

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# MIDDLE EAST

The Jerusalem Post (Jerusalem, Israel)

Khamenei: Iran, Not U.S., Has Brought Stability to Middle East

By Reuters

March 21, 2018

Iran's Supreme Leader accused the US of creating ISIS and said that his country had done the most to defeat the group.

Iran played a significant role in defeating Islamic State in the Middle East and has brought stability to most of the region, Supreme Leader Ayatollah Ali Khamenei said on Wednesday.

Shi'ite Muslim Iran has been locked in a regional power struggle with Sunni Muslim Saudi Arabia that has spilled into the wars in Syria and Yemen, where they have backed opposing sides, and fueled political rivalries in Iraq and Lebanon.

Tehran has accused Riyadh of supporting the Sunni militant Islamic State, an accusation Saudi officials have denied.

"The Islamic Republic played a significant role in the defeat of takfiri groups in the region," Khamenei said in a speech broadcast live on state TV. "The Islamic Republic brought stability to most of the region. These are huge achievements."

Officials in Iran use the term "takfiri" to refer to Sunni Muslim religious extremists such as Islamic State, which lost control over large tracts of Syria and Iraq to counter-attacking military forces over the past two years.

Khamenei said US policy had effectively created Islamic State and said Washington was incapable of fostering stability in the region. He cited the US military presence in Afghanistan, where American troops have fought the Sunni militant Taliban for more than 16 years, as an example.

"(Americans) say they had a role in the defeat of Daesh," Khamenei said, using an Arabic acronym for Islamic State. "That's a lie."

US President Donald Trump gave a warm welcome to powerful Saudi Crown Prince Mohammad bin Salman in Washington on Tuesday and criticized Iran's involvement in the wider Middle East.

Khamenei also said Iran does not interfere in the affairs of other countries in the region and only assists governments who ask for the Islamic Republic's help. Tehran backs Syrian President Bashar

al-Assad against mainly Sunni rebels and militants in Syria, and the dominant Houthi militia in Yemen.

## TRUMP MESSAGE TO IRANIANS

Trump sent greetings on Monday to Iranians celebrating their New Year holiday, known as Nowruz, but used the message to lambast the Tehran leadership, particularly the powerful Islamic Revolutionary Guard Corps.

Trump said Tehran had spent more than \$16 billion to prop up Assad and back militants in Syria, Iraq and Yemen, where a Saudi-led coalition intervened in 2015 to fight the Houthis and try to restore the internationally recognized government.

During the meeting with Prince Mohammed on Tuesday, Trump held up charts to show the depth of Saudi purchases of US military hardware, ranging from ships to missile defense to planes and fighting vehicles.

Prince Mohammed has previously said that Iran's regional ambitions should be thwarted inside the Islamic Republic.

Trump has threatened to pull the United States out of a landmark 2015 agreement between six world powers and Tehran which limited Iran's nuclear program in return for a lifting of sanctions. US sanctions against Iran will resume unless Trump issues new "waivers" to suspend them on May 12.

The United States will not realize its objectives in the region, Khamenei said in his Nowruz speech. "Without a doubt, America will not achieve its goals in the region and we will achieve our goals with the help of God," Khamenei said.

http://www.jpost.com/Middle-East/Khamenei-Iran-has-brought-stability-to-Middle-East-not-US-546710

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Politico (Washington, D.C.)

#### Inside Israel's Secret Raid on Syria's Nuclear Reactor

By Yossi Melman and Dan Raviv

March 20, 2018

Now the story can be told: The Mossad got lucky. In Iran and North Korea, the Americans might not.

Even if President Donald Trump is able to reach an agreement with Kim Jong Un, with North Korea promising to freeze or even dismantle its nuclear program, there will always be uncertainty about possible cheating.

Just ask Israel—which, despite having one of the world's most competent and aggressive intelligence services, the Mossad—nearly missed the fact that North Korea was helping build a nuclear reactor in next-door Syria, a country long viewed by Israel as a dangerous threat.

The American CIA missed it, too, and now, 11 years after Israeli air force jets bombed the clandestine Syrian facility, Israel's military censor is finally lifting the veil of secrecy and permitting locally based reporters to publish interviews with participants in the operation for the first time. We spoke with dozens of former cabinet ministers, including Prime Minister Ehud Olmert, as well as military and intelligence chiefs and commanders and even some of the pilots who took part in

the operation. The codename for the Sept. 6, 2007, raid, conducted near the remote desert city of Deir ez-Zur: "Outside the Box." Before today, Israel has never officially acknowledged its existence.

Years later, Israeli spooks are still raising bitter questions about the CIA's intelligence failure. Former Mossad director Tamir Pardo asked in an interview with us: "Where were the Americans? North Korea is a highly important target for them. And it still isn't clear whether [Syrian President Bashar] Assad was running the nuclear project, or was it the North Koreans?" The former spy chief added that he has some doubts that Syria was going to keep the plutonium, or perhaps it was going to be shipped to North Korea as a supply of which the West would be unaware. "This is a resounding failure by the Americans," Pardo said.

Pardo's questions raise another: If one of the best intelligence communities in the world, and certainly the most formidable in the Middle East, could be fooled by North Koreans and Syrians, what might the CIA be missing? That could be true in Korea, in Iran, or almost anywhere on Earth.

The Israeli air force raid on a secluded, unmarked building in northeastern Syria took place—a few minutes after midnight between 5th and 6th of September. To attack deep in enemy territory is easy, but Israel's American-made F-15 and F-16 jets enjoyed protection by sophisticated electronic jamming that blinded Syria's air defenses, and they had no trouble dropping tons of explosives on the target and confirming visually that it had been flattened. (Photos, many provided by Israeli intelligence, were released by the CIA to Congress – and immediately leaked to the media in Washington.)

The Syrian facility was almost identical to the Yongbyon nuclear complex in North Korea that produced plutonium for nuclear bombs, according to Israeli intelligence officials, and it was only weeks away from beginning to produce highly radioactive materials.

Deir ez-Zur, the largest city in eastern Syria, would be captured in 2014 by ISIS forces and then held by the Islamic militants for more than three years. Just imagine if ISIS had gotten its hands on plutonium and other parts designed to construct nuclear bombs. Israel's action – a difficult decision by then-Prime Minister Olmert, after he unsuccessfully asked President George W. Bush to bomb the building –prevented the world's most bloodthirsty terrorists from acquiring the world's most lethal weapons.

Israeli ministers and officials are proud of it. Olmert, who later resigned amid accusations of corruption, which eventually after being indicted by a court landed him in prison for 18 months, told us it was one of his most important and difficult decisions. Even his nemesis, then defense minister Ehud Barak, said in an interview: "Olmert deserve full credit for the brazen decision."

Lifting the veil of secrecy also reveals an ego battle for credit between Israel's two largest intelligence agencies. "The exposure of the reactor is one of the great achievements of Military Intelligence [the agency known by its Hebrew acronym, Aman] in particular, and of Israeli intelligence in general," said Brig. Gen. Shalom Dror, who in 2007 was a major in charge of Aman's research on Syria. Yet Pardo, who was deputy director of the Mossad at the time (and from 2011 through 2015 the spy agency's chief), differs: "For years, Syria built a nuclear reactor under our noses, and we did not know about it for years. It was not built on the dark side of the moon, but in a neighboring country where we always thought we know almost everything."

Israel's highest ranking general at the time, Chief of Staff Lt. Gen. Gabi Ashkenazi, recalled receiving reports on many Arab countries from Aman and the Mossad, but none linked the words "Syria" and "nuclear" in any serious way. "Sure, suspicions arose, but there was no proof," continued Ashkenazi, who has since retired. "And in intelligence work there were a lot of suspicions. Syrian nuclear was not a subject considered to be important."

Ram Ben-Barak, senior man in the Mossad for many years who was then head of one of its operations, told us: "Anyone who says that he knew that Syria was building a nuclear reactor either doesn't know or isn't telling the truth. When we brought the information, it was a complete surprise. Until then, the assessment was maybe yes, maybe no—that perhaps they were planning a nuclear project by the route of enriching uranium, and perhaps a reactor to produce plutonium. In short, we didn't know at all what to look for."

The fact that there was any attention paid to the possibility of a secret Syrian program at all was the result of a trauma suffered by Israeli intelligence near the end of 2003. Libya's dictator, the late Col. Muammar Gaddafi, publicly admitted that he had a nuclear weapons program. Western governments quickly discovered that the knowhow and materials had been sold to the Libyans by Abdul Qadeer Khan, the so-called father of Pakistan's nuclear bomb, who later became a freelancer and made a fortune as a nuclear trafficker.

Israel's spy chiefs winced as they admitted they had made an error comparable to the 1973 war, when the Jewish state was taken by surprise by its neighbor's armies on Yom Kippur. Israeli intelligence had not completely ignored A.Q. Khan. They had strong evidence that he helped Iran launch its military, unacknowledged, nuclear ambitions. But they did not realize that his sales efforts had succeeded elsewhere.

Shabtai Shavit, who was the director of the Mossad in the 1990s, told us a few years ago that Israeli intelligence knew about Khan's travels in the Middle East – hawking his wares – but did not understand how the Pakistani engineer could provide a quick and relatively easy kit for starting the route toward a nuclear arsenal. "If we had understood, I would have recommended that he be assassinated," Shavit said, "and that would have been one of the few times that eliminating a person could have changed history."

After the revelation that Gaddafi's Libya was dangerously advanced in its nuclear work, Israel's military intelligence chiefs ordered that every scrap of evidence that had been collected – but filed away without much analysis – be looked at again. Aman found reports of Khan's visits to Saudi Arabia, Egypt and Syria. Because the first two countries were friends of the United States, it seemed highly unlikely they would pursue nuclear weapons. The agency doubled its focus on Syria, where President Bashar Assad had come to power in 2000 by default when his father died – because his elder brother, groomed for leadership, had perished in a car crash.

Israeli intelligence saw the new dictator, who had been working as an ophthalmologist in London, as having a borderline personality—an inexperienced man who could be tempted to act recklessly or adventurously. Because his aspirations could be lethal and he sat on Israel's northeastern border, Aman commanders decided not to underestimate Assad.

"I had to explain to my people why I insisted on concerning ourselves with Syria," said a research head in the agency, retired Brig. Gen. Eli Ben-Meir, because the top topics at that time had been Iran and its proxy force in Lebanon, Hezbollah. Israel fought a war against the Lebanese Shiite militia in the summer of 2006 that was notably frightening due to the constant rain of rockets from Lebanon that compelled almost a million Israelis to descend to shelters or move temporarily to southern Israel.

Ben-Meir told us there were clues in Israel's deep and constant monitoring of Syria. Ships arrived from Asia with no apparent purpose. Trucks moved toward the east. Israel's intelligence liaisons asked friendly services, including the CIA, if they had noticed anything of a nuclear nature in Syria. The answer was negative.

Pardo's boss at the time, Meir Dagan (who was director of the Mossad from 2002 to 2011 and died two years ago) joined Chief of Staff Ashkenazi in asking Prime Minister Ariel Sharon for an extra

budget specifically to look for a nuclear project in Syria. Aman's renowned Unit 8200 greatly increased its monitoring of all Syrian communications.

Ibrahim Othman, director of Syria's Atomic Energy Commission, was considered to be the man who had to know the secrets. He became a high-priority target for Israeli intelligence.

As reported elsewhere, Israel Mossad's operatives broke into rooms where he stayed in Europe, including an apartment Othman maintained in Vienna, Austria, near the headquarters of the International Atomic Energy Agency—and found a gold mine. Othman had left a digital device and all its data was sucked out and sent to Israeli intelligence laboratories.

Surprisingly, because no one believed any vital information had been obtained, deciphering it was not a priority. The data was waiting on the laboratory's shelves a few days until it was finally deciphered. "My intelligence officer entered my room," recalls Ben Barak, "and showed me the photos taken from the phone." He added, smiling, "Sometimes intelligence operations need luck."

The photos from Othman's device showed him in the company of some North Korean scientists and most importantly were shot inside the structure, which clearly revealed that it was a nuclear reactor to produce plutonium.

The photos were the "smoking gun"—the ultimate evidence to corroborate Israel's suspicions. The information was rushed to Prime Minister Olmert, who approached U.S. President George W. Bush to ask him if the U.S. would do something about it. Bush said no, explaining that U.S. forces were fully engaged in Iraq and Afghanistan and that he didn't want to open a third front. Nevertheless, Bush didn't say anything about an Israeli raid. For Olmert, that was all he needed. He interpreted Bush's silence as a green light and instructed Lt.-General Ashkenazi to prepare an air strike.

After the raid, Israel kept silent—and so did Assad. Syria didn't want to admit it had violated its international commitments. Israel, for its part, figured out that if it said nothing in public, Assad would swallow his pride and not retaliate. Privately, Israeli leaders and chiefs of the military and intelligence contacted or met their allies in the West—the U.S., UK, France, Germany—and in the Arab world (Egypt and Jordan) to share with them the information behind the raid. Olmert also personally called Russian leader Vladimir Putin. Israel's calculation that Syria would not strike back proved correct, and the world seemed relieved that someone had removed a potentially serious threat to peace.

But to remove Iran's or North Korean nuclear threats will be a much more difficult task if President Trump decides to exercise the much-trumpeted military option.

https://www.politico.com/magazine/story/2018/03/20/inside-israels-secret-raid-on-syrias-nuclear-reactor-217663

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Reuters (New York, N.Y.)

# On Eve of Trump-Saudi Meeting, Riyadh Calls Iran Nuclear Deal Flawed

By Yara Bayoumy

March 19, 2018

WASHINGTON (Reuters) - Saudi Arabia called the 2015 nuclear deal between Iran and world powers a "flawed agreement" on Monday, on the eve of a meeting between the Saudi crown prince and U.S. President Donald Trump who have both been highly critical of Iran.

"Our view of the nuclear deal is that it's a flawed agreement," Saudi Foreign Minister Adel al-Jubeir told reporters in Washington.

The meeting between Crown Prince Mohammed bin Salman and Trump comes at a time when Riyadh and Washington have been strengthening their relationship after tensions under the previous U.S. administration, in part over Iran.

Jubeir called out Iran for what Riyadh has long slammed as Tehran's destabilizing behavior in the region.

"We've called for tougher policies towards Iran for years," Jubeir said.

"We're looking at ways in which we can push back against Iran's nefarious activities in the region," Jubeir said, lambasting Tehran's support for the Houthi militia in Yemen and support for Syrian President Bashar al-Assad in Syria.

Iran denies interference in the region's affairs.

Saudi Arabia had viewed with unease the administration of U.S. President Barack Obama, whom they felt considered Riyadh's alliance with Washington less important than negotiating the Iran nuclear deal.

Saudi state news agency SPA said the crown prince left for the United States on Monday to begin the visit, which is also expected to include meetings with business leaders and stops in New York, Boston, Los Angeles, San Francisco and Houston.

It is first visit by Mohammed bin Salman, or MbS as he known in Western circles, to the United States since he became heir apparent.

The ambitious young prince, has embarked on reforms to modernize deeply conservative Saudi Arabia.

He visited Britain earlier this month on his first foreign tour since his rise as part of efforts to persuade Western allies that "shock" reforms have made his country, the world's top oil exporter, a better place to invest and a more tolerant society.

He will meet Trump on Tuesday at the White House as well as senior administration officials. The crown prince is also due to meet with members of Congress, some of whom have been critical of the Saudi campaign in Yemen, particularly the humanitarian situation and civilian casualties.

In his meetings with business, industry and entertainment leaders, the prince is aiming to cultivate investments and political support. Several dozen Saudi chief executives are expected to join him in touting investment opportunities in the kingdom.

Jubeir said he would meet with executives in the oil and gas industry in Houston. He added that Riyadh would look to sign memorandums of understanding, without providing additional details.

The crown prince will have meetings at Google, Apple and Lockheed Martin. He will also participate in a Saudi-U.S. CEO forum in New York and will meet with U.N. Secretary General Antonio Guterres.

Jubeir lauded the U.S.-Saudi relationship at an "all time high."

Any visit to the New York Stock Exchange will be watched closely by investors because of the potentially lucrative listing of up to 5 percent of Saudi Aramco expected later this year.

Sources close to the process said the kingdom is increasingly looking to just float the oil giant locally as plans for an initial public offering on an international exchange such as New York or London appear to be receding.

Saudi Energy Minister Khalid al-Falih said recently that Aramco was too important to risk listing in the United States because of litigation concerns, such as existing lawsuits against rival oil companies for their role in climate change.

Prince Mohammed has won Western plaudits for seeking to ease Saudi Arabia's reliance on oil, tackle chronic corruption and transform the Sunni Muslim kingdom.

But the severity and secrecy of an anti-corruption crackdown

last November, after Prince Mohammed was named heir to the throne, has unnerved some investors.

The crown prince is also likely to reiterate to Washington the view of Saudi Arabia that its regional arch-rival, Iran, should not be trusted given its nuclear program.

Under a deal reached with major powers including the United States in 2015, Tehran curbed its enrichment of uranium for nuclear fuel, a process that can also yield atomic bombs, in exchange for a removal of tough international sanctions.

Trump delivered an ultimatum to the European powers on Jan. 12, saying they must agree to "fix the terrible flaws of the Iran nuclear deal" or he would refuse to extend U.S. sanctions relief on Iran that it calls for.

https://www.reuters.com/article/us-saudi-us-trip/on-eve-of-trump-saudi-meeting-riyadh-calls-iran-nuclear-deal-flawed-idUSKBN1GV1YT

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BBC News (London, United Kingdom)

#### Saudi Arabia Pledges to Create a Nuclear Bomb if Iran Does

**Author Not Attributed** 

March 15, 2018

Saudi Arabia has warned that it will develop its own nuclear weapon if regional rival Iran acquires one.

Crown Prince Mohammed bin Salman told US network CBS News his country did not want to acquire nuclear weapons.

"But without a doubt, if Iran developed a nuclear bomb, we would follow suit as soon as possible," he added.

Iran limited its nuclear programme under a 2015 deal with several world powers - but US President Donald Trump has threatened to withdraw from it.

Saudi Arabia and Iran have long been rivals in the Middle East. Each is dominated by different branches of Islam - Sunni for Saudi Arabia, Shia for Iran - and they have historically supported opposing powers in regional conflicts.

In recent years, tensions have escalated over the wars in Syria and Yemen.

Prince Mohammed bin Salman, who is heir to the throne and also the Saudi defence minister, made the statement in an interview with CBS's 60 Minutes programme.

He also explained why, in November, he called Iran's supreme leader Ayatollah Ali Khamenei "the new Hitler of the Middle East".

"He wants to create his own project in the Middle East, very much like Hitler who wanted to expand at the time," the crown prince said.

"Many countries around the world and in Europe did not realise how dangerous Hitler was until what happened, happened. I don't want to see the same events happening in the Middle East."

Saudi Arabia, a key US ally, has been a signatory to the Treaty on the Non-Proliferation of Nuclear Weapons since 1988.

It is not known to have attempted to develop nuclear arms on its own but has reportedly invested in Pakistani nuclear weapons projects..

In 2013, Amos Yadlin, a former head of Israeli military intelligence, told a conference in Sweden that if Iran got the bomb, "the Saudis will not wait one month. They already paid for the bomb, they will go to Pakistan and bring what they need to bring."

Iran also signed the non-proliferation treaty, and has long insisted its nuclear programmes are for peaceful purposes only.

However in 2015, it signed onto an international agreement that saw crippling economic sanctions lifted in return for limitations on the programmes, which world powers feared Iran would use to create a nuclear weapon.

The deal restricted uranium enrichment, plutonium production, and allowed for increased inspections.

It was painted as a major victory by the administration of former US President Barack Obama. But his successor, Donald Trump, has called the deal "the worst ever".

Rex Tillerson, the former secretary of state, appeared to support the deal. But his new replacement Mike Pompeo has long shared the president's view that the agreement should be scrapped.

In January, Mr Trump extended sanctions relief on Iran for what he said would be the last time. The "waivers" suspending sanctions are to expire in May.

European leaders - including the UK, France, and Germany - have appealed to Mr Trump to preserve the agreement, which they say is working as intended.

Israel is widely considered to be the only nuclear-armed country in the Middle East but it refuses to confirm or deny it has a nuclear arsenal.

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# INDIA/PAKISTAN

livemint.com (New Delhi, India)

## India Takes Nuclear Non-proliferation Very Seriously: Nirmala Sitharaman

**Author Not Attributed** 

March 16, 2018

India is complying with nuclear non-proliferation regulations despite not being a signatory to NPT, says Nirmala Sitharaman

New Delhi: India takes nuclear non-proliferation very seriously and unlike some of its neighbours, it does not believe in "dirty bombs", defence minister Nirmala Sitharaman said on Thursday, in an oblique reference to Pakistan.

Sitharaman, while speaking at a book release function here, said India is complying with nuclear non-proliferation regulations despite not being a signatory to the non-proliferation treaty (NPT). "We are signing nuclear treaties as a commitment to non-proliferation and are not supportive of illegal spread," she said.

"Unlike some of our neighbours, India does not believe in dirty bombs, we take non-proliferation very seriously," she said. Sitharaman also said infiltration bids from across the border with Pakistan have "not come down".

"We are remaining alert, we will not entertain infiltration," she said. On the issue of rising militancyrelated incidents in Kashmir, the minister said the government is working with the state government to deal with the issue.

"Efforts are going on and government is engaged," she said, referring to the visits of the Centre's interlocutor who has been engaging with different sections of people in the state. She said India does not want an escalation in tensions, but it is for Pakistan to prove that their territory is not being used for terrorism.

http://www.livemint.com/Politics/SjRnvsPw9DTRyFZWIuP2zL/India-takes-nuclear-nonproliferation-very-seriously-Nirmal.html

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Business Standard (New Delhi, India)

#### Pak's Nuclear Ambition Limited to Matching India's Capabilities: Book

By Press Trust of India

March 15, 2018

Abbas also provides a brief sketch of North Korea's nuclear development, followed by an analysis of the historical nature of Pakistan-North Korea relations

For Pakistan's nuclear managers today, matching Indian nuclear capabilities is all that matters, says a new book which critically examines how and why the neighbouring country acquired its nuke weapons and many related issues.

In "Pakistan's Nuclear Bomb: A Story Of Defiance, Deterrence And Deviance", academic Hassan Abbas profiles the politicians and scientists involved in the development of Pakistan's nuclear bomb, and the role of China and Saudi Arabia in supporting its nuclear infrastructure.

The book also examines Pakistani nuclear physicist A Q Khan's involvement in nuclear proliferation in Iran, Libya and North Korea, and argues that the origins and evolution of the Khan network were tied to the domestic and international political motivations underlying Pakistan's nuclear weapons project, and that project's organisation, oversight and management.

It further takes a look at the prospects for nuclear safety in Pakistan in the light of the country's nuclear control infrastructure and the threat posed by the Taliban and other extremist groups to the nuclear assets.

"Whether it is about prospects of admission into Nuclear Supplier Group or gaining access to western technology useful for civilian nuclear purposes, Pakistan feels that it is treated unfairly visavis India. On the side, Pakistan is also aggressively investing in developing nuclear reactors capable of yielding weapon-grade plutonium with China's help," Abbas writes.

The author also says that the simmering Kashmir dispute continues to drive Pakistan's security perspective and it considers all means including use of any proxy militant groups as legitimate. He adds that Pakistan is unlikely to budge from this posture in foreseeable future.

"India is obviously not impressed with this state of affairs and its calculus also involves following China's nuclear capabilities and policies," he writes in the book published by Penguin Random House India.

According to Abbas, India's nuclear posture naturally corresponds to its status as a rising global power; it pledges "no first use" but also promises a massive retaliation against an adversary that strikes first with nuclear weapons.

This only further complicates the South Asian security scene that has already yielded to a deadly nuclear arms race, he says.

Abbas also provides a brief sketch of North Korea's nuclear development, followed by an analysis of the historical nature of Pakistan-North Korea relations.

"Clearly, North Korea's determination in acquiring nuclear capabilities over 40 years suggests that the issue remained one of the highest priorities for the country's national security and strategic considerations," he writes.

"As for Pakistan, nuclear proliferation, or the sale of its nuclear expertise to North Korea did not constitute a threat to its sovereignty. But what occurred beneath the surface is critical. Information about the exact nature of the transactions between Pakistan and North Korea reveals a complex web that involves the AQ Khan network, the Pakistani military, and the government of Pakistan," he says.

http://www.business-standard.com/article/current-affairs/pak-s-nuclear-ambition-limited-to-matching-india-s-capabilities-book-118031500469 1.html

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# **COMMENTARY**

Australian Strategic Policy Institute (Canberra, Australia)

#### Trump, North Korea and Iran

By Mohammed Ayoob

March 20, 2018

President Donald Trump has stunned allies and adversaries alike by accepting North Korean President Kim Jong-un's invitation to meet with him in May to discuss North Korea's nuclear weapons program. The speed with which he made the decision—all of 45 minutes—and even without consulting Secretary of State Rex Tillerson, who has since been fired, was typical of Trump's unique decision-making style based on instinct rather than reason.

Trump's decision to meet with the North Korean leader has broader implications in the arena of nuclear non-proliferation. The most important of these is the message this decision has sent to Iran. The irony that the same administration that's considering imposing fresh sanctions on Iran and withdrawing from the JCPOA—the nuclear agreement that has almost indefinitely postponed Iran's acquisition of nuclear weapons—is willing to talk directly with a nuclear-capable North Korea hasn't been lost on the Iranians.

Trump's divergent approaches towards North Korea and Iran are all the more surprising because where there have been differences between the two countries' attitudes toward the United States, it's North Korea that stands out as the more threatening of the two.

Iran has never fought a war with the United States. The closest the two countries have ever come to trading blows was during Iran's war against Iraq. In that war, when Iraq was clearly the aggressor, it acted as a proxy both for the United States and for Saudi Arabia in their attempts to nip the Islamic Revolution in the bud.

North Korea, on the other hand, fought a very bloody war against the United States and its ally, South Korea, from 1950 to 1953 that led to at least 33,652 American battle fatalities. North Korea has constituted a real military threat, through both conventional and nuclear weapons, to America's close allies, South Korea and Japan. In addition, North Korea has threatened the US homeland and, according to recent reports, is close to developing an ICBM capability that can reach as far as Washington, DC.

The Chair of the US Joint Chiefs of Staff, Marine Corps General Joseph Dunford, confirmed these reports at a hearing before the Senate Armed Services Committee. In the same hearing, General Dunford categorically declared, 'North Korea certainly poses the greatest threat [to the United States] today.'

Iran, on the other hand, has never posed a threat to the US homeland or threatened to incinerate American allies, such as Saudi Arabia next door, with nuclear weapons. Its threats against Israel are rhetorical rather than realistic given Israel's conventional and nuclear capabilities that can inflict tremendous damage on Iran. In fact, it was Israel that constantly threatened Iran with attacks on its nuclear facilities in the run up to the JCPOA.

The principal lesson that Iran is likely to draw from America's decision to negotiate with North Korea at the highest level, while threatening Iran both with withdrawal from the JCPOA and the imposition of new sanctions, is that it's North Korea's nuclear arsenal and delivery capabilities that have brought the American president to the negotiating table.

This is bound to give Iranian hardliners further ammunition to attack the Rouhani government for making the compromises it did in relation to Iran's nuclear program to get economic sanctions lifted. Their criticism implies that had Iran developed nuclear weapons instead of signing away its right to do so, the American president would have gone running to Tehran to negotiate a nuclear deal more favourable to Iran than the JCPOA.

America's rhetoric about re-imposing sanctions on Iran, as well as Trump's repeated threats to withdraw from the JCPOA while agreeing to negotiate with North Korea at the highest level, has made Iranian moderates such as Hassan Rouhani and Javad Zarif look stupid in the eyes of an Iranian public still waiting for the economic benefits that were supposed to accrue to them in return for giving up Iran's nuclear ambitions.

Trump's sacking of Tillerson, principally because Tillerson had opposed Washington's withdrawal from the JCPOA, and the appointment of Iran-hawk and blatantly Islamophobic Mike Pompeo in his stead, has sent a clear message to Iran that the United States is about to renege on its commitment to JCPOA.

Furthermore, there are reports that another anti-Iran hawk, John Bolton, is likely to be appointed National Security Adviser, replacing HR McMaster. This is likely to strengthen the Iranian sentiment that Iranian–American relations are once again destined to descend into unadulterated antagonism, as was the case before President Barack Obama came to power.

Given President Trump's predilection for impulsive actions, some American commentators are even predicting another war in the Middle East, this time against Iran. The negative consequences of such a war both for the United States and for the region will be far worse than President George W Bush's invasion of Iraq in 2003.

As a leading American analyst commented, 'Bush went to war against Iraq, not Iran, because he knew that [Iran] was a much tougher nut to crack. If Trump becomes enmeshed in a new war in the Middle East [against Iran], his presidency will almost surely go down in history as a catastrophic failure.'

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

Russia's Chemical Romance: Don't Call It a WMD Attack

By Al Mauroni

March 16, 2018

Retired Russian double agent Sergei Skripal and his daughter were found unconscious on a park bench in Salisbury, England earlier this month. British Prime Minister Theresa May said on March 14 that investigators had evidence that the two individuals "had been poisoned by a military-grade nerve agent of a type developed by Russia." Nearly two weeks after the attack, British police are still cordoning off the area and more than 20 people have received medical care. Skripal and his daughter are reportedly in critical condition. The United States, United Kingdom, France, and Germany have released a joint statement formally blaming Russia for the incident. Russian officials have, of course, rejected the accusation.

This is not the first time Russia has been accused of using unconventional means to try to kill off Russian expatriates residing in the United Kingdom. In 2006, Alexander Litvinenko, a critic of the

Russian government, was poisoned by ingesting polonium-210 in his tea while meeting friends in a central London hotel. Six days later, he entered a hospital after feeling ill, and died shortly thereafter. The evidence, in the form of radioactive contamination and its trail through London, strongly suggested the Russian government's involvement. Similar to the Salisbury case, Russia did not appear to be too concerned about this attribution.

In perhaps the most famous case of unconventional assassinations, in 1978 Georgi Markov, a Bulgarian dissident who lived in London, was killed by a man who shot a ricin-filled pellet into his thigh using a specially modified umbrella. Officially, the case has never been closed, but again, evidence suggested involvement by the Soviet Union's KGB and members of the Bulgarian secret police. Unlike the 2006 and 2018 events, that event was meant to be covert. Initial medical examination of Markov suggested a natural cause of death. The real story was only discovered when a second Bulgarian dissident was similarly attacked, though he survived due to the pellet's failure to dispense all of its ricin.

Some have argued that the Russian government carries out these assassinations, even on the territory of a sovereign — and nuclear-armed — state, to intimidate other Russian critics of the Putin regime. The Salisbury incident would fit into this pattern. The message seems to be: If you cross Mother Russia, it may take years, but you will die and it will be painful. Using a chemical agent is a significant change, showing that Russia has expanded its tool-set from the usual blunt force trauma, suicides, and shootings that happen to other critics of the regime — exiled millionaires, journalists, musicians, opposition politicians, and the like. The question is, how should the West react?

Assuming Russia did conduct a covert assassination within the United Kingdom using a chemical weapon, it is a criminal act and not necessarily a treaty violation. The prime minister's expulsion of 23 Russian diplomats and promise to detain incoming intelligence agents is absolutely the correct response. Sending the case to the United Nations as a treaty violation would be a waste of time and would only publicize Russia's contempt for the liberal international order. The Salisbury incident shows that it is not analytically useful to place chemical weapons attacks on individuals and large-scale chemical weapons use during military conflicts in the same nebulous category of "weapons of mass destruction."

#### **Just Another Tool**

The typical Western approach to these events is to focus on the exotic means of the death, arguing that using chemical or biological weapons in assassination attempts is a direct violation of international treaties. Indeed, the Chemical Weapons Convention does state that its signatories are not "to develop, produce, otherwise acquire, stockpile or retain chemical weapons." The general obligations clearly state that state parties are not to use chemical weapons, though the treaty doesn't address non-state actor use (as they are not signatories).

The Biological Weapons Convention similarly calls for state parties to renounce the development and production of biological agents and weapons designed for hostile purposes. The Markov incident occurred after the Soviet Union ratified the treaty and the convention entered into force. Notably, the State Department reported in 2017 that it remains unclear whether Russia has fulfilled its obligations under the Biological Weapons Convention and that Russia's declaration under the Chemical Weapons Convention "is incomplete with respect to its chemical agent and weapons stockpiles." Nonetheless, it would be a mistake to focus on Russia's treaty violations in these alleged assassination cases.

Instead, the international community should look at this recent incident in context — as a murder investigation and not as a treaty violation. Before Litvinenko died, he remarked that the Russian

regime used poisons as just another weapon for assassinations. The Chemical Weapons Convention is not meant to address chemical weapons usage outside the context of military conflict. It was drafted after years of debate about how to address the possibility of nation-states employing chemical weapons in combat with other nation-states. Although the language is broad and not specific to warfare, the language of the treaty and the discussion surrounding chemical weapons has focused on their "abhorrent" nature. The treaty sought to eliminate the possibility of military armies using chemical weapons in large quantities to weaken enemy forces, immobilize strategic bases, and kill unprotected civilians in major cities. It was not designed to address sub-state groups developing their own chemical weapons or state security forces using chemical weapons to defuse a hostage situation.

The United States and United Kingdom have both clearly described this incident as a Russian chemical attack against the United Kingdom, emphasizing the phrase "military-grade nerve agent." This is a mistake, especially by those who call it a "WMD incident." Within the United States, there is a legal code to address cases in which people use chemical weapons to injure or kill a person, separate from the legal code that calls for the U.S. government to implement the Chemical Weapons Convention. There's a reason for this. The first code addresses the perpetrator's intent to use a chemical weapon. The second code addresses the conduct of people within the U.S. government who develop or produce such a weapon. The case of Carol Anne Bond v. the United States demonstrated this concept by establishing that when an individual uses a chemical weapon to injure or kill another, the WMD possession charge is secondary to its actual use in a crime. Context matters.

This focus on the means rather than the murderer presents a perfect opportunity for the Russian government to push back on the credibility of the analysis and the source of the agent. It makes it harder to address the fundamental issue of whether Russia's agents were in England attempting to assassinate a former Russian double agent. Don't get distracted by the theatrics about a "deadly military-grade nerve agent." Focus on the victim and the perpetrator, not the weapon.

## Addressing Russia's Violations

The State Department released a press statement that states "Russia was likely responsible for the nerve agent attack that took place in Salisbury last week." But the statement reserves its outrage for the fact that "Russia appears to have again engaged" in the "attempted murder of a private citizen on the soil of a sovereign nation." That's the real issue. The United Kingdom should explore all possible avenues to address these violations of its sovereignty, whether the weapon used was a truncheon, a faked suicide, a gun, or a chemical agent. In the past, the British government has largely ignored these Russian assassination cases, so May's decision to expel the diplomats is a welcome one.

However, charging Russia with a treaty violation has a few significant challenges. First, Russia will dispute the charge and demand to see the evidence for the purpose of obfuscation. Although the use of an exotic, persistent nerve agent that was once manufactured inside the Soviet Union would seem to indicate the source, they'll debate the attribution. Chemical agents, once the formulation is known, can be cooked up anywhere. Russia will then stop the Organization for the Prohibition of Chemical Weapons from making the case and bringing it up to the United Nations Security Council, should the United Kingdom directly challenge Russia as the culprit through that channel. As a permanent member of the council, Russia can veto and block any investigation, as it has with cases being built against its Syrian ally. Finally, Russia — a nuclear power second only to the United States — doesn't fear military retaliation and will shrug off criminal investigations. Putin wants the notoriety and is willing to risk economic and diplomatic sanctions.

This also applies to the recent North Korean use of the nerve agent VX against one of its citizens in Malaysia. North Korea isn't a party to the Chemical Weapons Convention, and the intelligence community has long known of the regime's chemical weapons stockpile. The condemnation of the Malaysia incident, similar to the Salisbury case, should focus less on the chemical weapon used and more on the fact that a state sanctioned a hit on a private citizen in another country. A statement of "grave concern" from the Organization for the Prohibition of Chemical Weapons Executive Council is hardly going to strike fear into the heart of the Kim regime. Similarly, if Russia was sending a direct message to potential dissidents and double agents, its leaders are not really going to care about the niceties of international treaties that address weapons of mass destruction.

The technical community of WMD experts should not lead the discussion on this case. Yes, they're going to be eager to examine the use of a chemical weapon in a contemporary security setting, but technical expertise isn't the same thing as policy expertise. While these analysts can tell you everything about the composition of the agent and how the arms control community regulates these actions, this doesn't advance knowledge on the diplomatic impact on relations between Russia and the West.

Chemical weapons are a class of "weapons of mass destruction," but that needs to be put into context. A gram of chemical agent used against an individual is not "mass destruction." The category "WMD" has been useful in arms control efforts to address the potential chemical and biological weapons programs by nation-states, given the concern that governments might employ such agents in large-scale attacks against unprotected civilians. U.S. policy has largely focused on that aspect rather than on the covert and criminal use of small-scale, single attacks. As a result, we have the U.S. ambassador to the United Nations making equivalencies between the Salisbury case and Syrian chemical attacks that have killed hundreds.

The Department of Justice does not distinguish between small and large quantities of chemical or biological hazards that individuals might use against another person in a criminal act. It doesn't distinguish between "military-grade" chemical agents or industrial hazards for that matter, calling it all "WMD." That's been a mistake, one that makes it more difficult for the U.S. government to achieve its WMD-related policy objectives as stated in the National Security Strategy. The Salisbury case in particular should demonstrate the value of distinguishing between the weapon programs that nation-states develop for their military forces and the assassination tool that spies and violent extremists use against individuals.

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Real Clear Defense (Chicago, Illinois)

# The Hidden Role of Chemical Weapons on 9/11

By Ian Wilkie

March 16, 2018

Lost in the piles of rubble amid thousands of corpses on that tragic day on 9/11 were small handheld devices which afforded the hijackers a distinct advantage in the small, confined spaces of the aircraft cabins: namely, miniaturized chemical weapons containing CS gas (from the initials of its American inventors, Ben Carson and Roger Staughton) or cayenne pepper. This oftenoverlooked component of the attacks is critical to understanding how four or five people managed to commandeer three out of four wide-bodied jetliners and turn them into massive incendiary

missiles. These chemical weapons, employed along with boxcutters and utility knives, were used to devastating effect.

Personal protection sprays, while not lethal, are very much a "chemical weapon" according to international law since they are noxious substances designed to incapacitate. World War One witnessed almost 100,000 deaths and a million total casualties from chemical weapons, so the world acted diligently to ban these weapons at the Geneva Conference of 1925. Since the French had used tear gas as one of the first chemical weapons used in combat, it was expressly included in the prohibitions.

Tear gas is a debilitating substance, capable of blinding someone in combat or any confrontation, which can often make the difference between winning and losing. Personal protection sprays similar to CS, while marketed as a defense against mugging, can readily be turned into offensive weapons.

Al Qaeda has been studying and testing chemical weapons in Afghanistan before the "Planes Operation" was even on Osama Bin Laden's drawing board. Chemical weapons in the hands of terrorists are a highly-effective force multiplier. Easily hidden and relatively inexpensive, chemical weapons can injure and disable adversaries, and instill in the words of the immortal Winston Churchill "a lively terror" in those unprepared for their deployment. The range of chemical weapons is vast, running from persistent organophosphates like Tabun and VX all the way down to rapidly-dispersing irritants such as CS.

Personal protection spray deployment by the 9/11 attackers was highly professional and choreographed, as they managed to use them along with knives without injuring themselves in the process. While the attackers moved from their seats towards the attendants and flight crew, they would have endeavored to spray the chemicals first and slaughter the pilots second, a simple but devastating strategy.

The world was made aware of the chemical weapons use by Betty Ong, the Flight 11 air hostess, and Flight 93 passengers who described the flight deck and first-class cabin as being fogged with a lachrymose cloud. The terrorists were apparently using the chemical personal protective sprays for the distinct tactical purpose of disabling their victims while conducting their attack against the pilots and commandeering the planes. The use of these chemical agents on both flights 11 and 93 means that they were likely part of the terrorists' arsenal on every plane and thus a key enabler to the success of the attacks on the Pentagon and the World Trade Center towers.

If the passengers in the back of the Flight 93 jetliner were not made aware via cell phone calls regarding the other hijacked planes, they might not have overtaken the flight deck, and the United States would be missing its Capitol building today. In other words, chemical weapons in the hands of Salafist terrorists have already done grave damage to the United States.

Fast forward seventeen years to 2018, and we are facing a conflict in Syria where the use of chemical weapons has become all too common. While much of the attention has been given to the use of chemical weapons by the Assad regime and the possibility of Russian assistance, al Qaeda had long influenced the use of chemical weapons throughout the region and abroad.

Al Qaeda, which gave birth to the Islamic State or ISIS, had continued its research and development of chemical weapons after 9/11, even going so far as to fashion a field expedient, hydrogen cyanide dispersal device called the Mobtaker or "mubtakkar" for use in the New York City subway system. Ayman Al Zawahiri, al Qaeda's current leader, called off the 2003 cyanide attacks for "something better," likely the simultaneous midair explosion of multiple jetliners over the Atlantic Ocean. Fortunately, aggressive surveillance stopped those attacks; however, the terrorist capacity to make and deploy chemical weapons remains.

Just this February, al Qaeda affiliates have been accused by Arab and Syrian media of manufacturing and using chlorine gas weapons in a Damascus suburb, framing the Assad government in so-called "false flag" operations.

These capabilities are predicated on Qaeda's development of Weapons of Mass Destruction (WMD) recipes for chlorine gas, sulfur mustard, and so-called "kitchen Sarin" as well as dirty bombs and biological weapons such as anthrax and ricin, which have all been collected, digitized and disseminated. This deadly collection was transferred to ISIS and discovered on the laptop of an ISIS fighter in Syria, gaining the moniker "Laptop of Doom." More shocking than the scary name is the fact that this lethal knowledge now exists in electronic form and can be instantly accessed at will by terrorists anywhere in the world.

Whether one is speaking of chemical weapons as an adjunct element in a plane hijacking or a primary weapon to inflict mass casualties, such as a nerve gas attack, the truth is that these weapons are not impossible to make or acquire. There is evidence in possession of the United Nations that terrorists have used chemical weapons in Syria multiple times. Until today, there has not been a single individual publicly identified in connection with any of these attacks. Even President Assad, accused of attacks in 2013 and 2017 causing organophosphate poisoning symptoms, cannot be conclusively identified as the responsible party. The lack of a conclusive forensic footprint when using these weapons makes their use a particular proliferation threat, and the future use by ISIS remnants and al Qaeda and its affiliates should be of grave concern.

Intimating the use of WMD by terrorist groups, Al Qaeda published two issues of its marquee electronic magazine Inspire referring to the "stage of weapons of mass destruction." The authors promised more information on the topic and then subsequently went dark, possibly because of the death of Anwar Al Awlaki. One cannot help but wonder if they are adhering to the "actions speak louder than words" philosophy and moving, in their measured and inexorable way, toward chemical weapons attacks on the scale of 9/11 against Western targets.

https://www.realcleardefense.com/articles/2018/03/16/the hidden role of chemical weapons o n 911 113206.html

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

# Why America Must Modernize Its Nuclear Forces

By Peter Huessy

March 15, 2018

"We took a procurement holiday for almost 30 years and stopped modernizing our force." That's what Gen. Garret Harencak, the former Air Force assistant chief of staff for Strategic Deterrence and Nuclear Matters, told one of my nuclear seminars in 2013.

America's nuclear force is aging: U.S. land-based intercontinental ballistic missiles (ICBMs) are now 47 years old, the B-52 strategic bomber is approaching 50 years, and the submarines are approaching 40 years — the longest any U.S. submarine has ever been at sea.

The new Nuclear Posture Review is a restrained and well-thought out roadmap for the future development and modernization of U.S. nuclear forces as well as a strategy for maintaining and improving America's deterrent capability.

Given the age of U.S. systems, and the late start the Pentagon got to modernization, a new strategic bomber will not be in the skies until the middle of the next decade. We won't see a new U.S. land-based until the end of that decade. And there won't be a new Columbia class submarine until 2031. Waiting any longer would be a dangerous risk.

#### The Modernization Debate

Many analysts have criticized the administration for its ambitious plan to modernize nuclear weapons, with most critiques focusing on the high price tag and worrying that the administration is going to increase the number of nuclear warheads.

In fact, the modernization effort outlined in the Nuclear Posture Review is sensible and more affordable than the alternative – sustaining an aging force that requires greater and greater funding each year. Critics tend to highlight the cost implications of the Nuclear Posture Review because this is the first such review completed just as a major nuclear modernization program got underway. Thus future costs are more visible and much larger than previously projected under past nuclear reviews.

Many Americans may not realize this, but the last comprehensive modernization of the U.S. nuclear deterrent began in 1981, some 37 years ago. The choice America faces is simple: modernize or disarm. Doing nothing would rust the nuclear forces to obsolescence — essentially a policy of unilateral disarmament. Administrations may have delayed, truncated, or otherwise slowed modernization, but modernization has always been the path forward; the key issue has been when to do so.

Indeed, the 2018 document does not propose policies that are a radical departure from previous nuclear policy: The proposed modernization of the triad of bombers, cruise missiles, submarines, and land-based missiles is largely inherited from the previous administration. The Senate ratified the New START Treaty, with the understanding that this approval was explicitly tied to most of the nuclear modernization that the 2018 Nuclear Posture Review is now endorsing.

#### **Exploring the Costs**

Using budget charts from the Center for Strategic and Budgetary Assessments' (CSBA) 2015 study of nuclear modernization costs— the cost of nuclear modernization is estimated to be \$300 billion over 25 years, even in inflation-adjusted dollars. This is true even if one includes 25 percent of all nuclear-capable bomber costs, (though the real nuclear cost portion of the B-21 bomber program is around 3 percent). Estimates of \$1.2–\$1.7 trillion for the cost of nuclear modernization are incorrect. In these estimates, bomber costs are excessive, sustainment costs assume the worst case, the ground-based strategic deterrent numbers assume low rates of production, and modernization investments are confused with operations and maintenance funding of old, legacy systems.

Keeping the old systems around is getting expensive. The cost of simply sustaining the current force, with zero modernization, is close to \$800 billion over 30 years according to an October 2017 Congressional Budget Office (CBO) report. This would include incremental fixes to the systems, but also incorporate inflation-adjusted dollars and cost growth. The figure assumes that there are few, if any, cost-effective measures to better sustain or support modern future systems compared to the relatively old systems of today that are indeed more and more expensive to keep in the force. The assumption is that new, modern weapons systems are going to require relatively expensive operating and sustainment budgets, which may not be the case at all.

Thus, when the sustainment costs of the current old systems, the costs of the new systems when deployed, plus the acquisition costs of new systems, are all combined, the costs come to \$1.2 trillion, according to that CBO report, far higher than any of the office's previous assessments. When examined closely, there are two important caveats to this figure. The report acknowldged using 100

percent of the bomber modernization and sustainment costs, even though all previous CBO assessments used a more realistic 25 percent. That factor alone increased the estimated 2017 costs by at least \$142 billion compared to the similar CBO nuclear cost study done just two years before in 2015. And if expressed in then-year rather than 2017 dollars, the difference would have been more than \$200 billion.

After the CBO made its 30-year assessment in October 2017, the Air Force announced it would be retiring the B-2 (and B-1) bombers early, which alone will further reduce bomber sustainment costs by \$38.5 billion. A B-2 takes 27 hours of maintenance for one hour of flying time. By contrast, a B-52 has a maintenance to flying time ratio of 17 to 1. When the funds saved from retiring the B-1 and B-2 early are added to the \$10 billion in operating costs over 30 years saved by the recently proposed B-52 re-engining, the overall bomber sustainment costs are reduced significantly from earlier estimates.

CBO also factored in 100 percent of certain satellite costs, which CSBA does not, as the satellite mission cannot accurately be considered solely nuclear. Combined, these factors account for \$250 billion in reduced cost estimates by my counting.

In estimating the sustainment costs of the future nuclear force, CBO clearly assumes little improved efficiency compared to the CSBA assessment. And given that sustainment of the nuclear force is two-thirds of the total nuclear costs, higher sustainment estimates obviously boost the anticipated expenditures. Similarly, future efficiencies will sharply reduce program costs.

In contrast with CBO, the Nuclear Posture Review estimates lower sustainment costs from 2018 through 2029–30 and then a modest 1 percent ramp up to 2040. In short, it is cheaper and more intelligent to modernize forces rather than stopping or slowing modernization for budget reasons. To really save money, the United States would have to retire systems and get out of the nuclear business.

## Digging Into the Numbers

According to CSBA, a realistic estimate of the total cost of the nuclear enterprise comes to around \$28 billion a year. This is how much it would cost to sustain the old force, efficiently replace it, and in roughly 20 years have a fully modernized and sustainable force.

The CSBA estimate rejected the CBO assumption that 100 percent of bomber costs should be included. CSBA used 25 percent of bomber costs plus more reasonable estimates of annual sustainment. CSBA estimated the full nuclear modernization and sustainment costs over 25 years were \$706 billion, even in then-year dollars, peaking at \$34 billion a year in 2029 but averaging \$28 billion a year, or on average 4 percent of the defense budget.

Even considering that the CSBA looked at a 25-year horizon while the CBO looked at a 30-year one, (the longer-term estimate will of course be more, everything else being equal), the two assessments differ by at least \$240 billion and as much as \$300 billion.

That's real money, even in Washington.

It is true that in some years the annual cost will be higher than the average of \$28 billion, but in any acquisition program, there first will be a ramp-up and annual expenditures will decline markedly thereafter. What's more, according to the CSBA report, is even at its peak, spending will grow to no more than \$34 billion a year, which is a very reasonable 4.7 percent of today's defense budget even including anticipated inflation and program cost growth.

And while the CBO and most other analyses assume the nuclear enterprise will cost more in the future than current estimates project, there is no reason future cost savings cannot be accomplished. Since the October 2017 CBO report, we have already seen multiple millions of

savings realized in the ICBM Fuze program, according to my conversations with Air Force officers. \$960 million has been saved in the hull costs of the new Columbia class submarines, and we expect \$10 billion in projected savings from the plans to re-engine the B-52s.

Some argue that these are forgone costs and not costs that can be subtracted from current program estimates. Even if true, these savings bring previous estimates down, and reflect real program cost reductions. The planned retirement of the B-2 and the B-1 plus the re-engining of the B-52 were announced in December 2017 and February 2018, after the October 2017 CBO study, and thus these savings are not included in the CBO assessment. Taken together, retiring the B-2 and the B-1 early saves \$38 billion through 2050; adding new engines to the B-52 actually saves a net \$10 billion, offset by the additional \$22 billion needed to keep the bomber in the force longer.

When buying weapons systems, it normally takes 12–13 years to get to initial operating capability. First the Navy and Air Force, overseen by the Department of Defense, contract to reduce the risk inherent in such weapons systems. Then they move to research, development, test and evaluation. When those tasks are completed, the actual production of the bomber, submarine, or ICBM begins, with future annual production often stretched out to continue supporting the industrial base.

According to the Nuclear Posture Review, current bomber, ICBM and submarine production will not result in a weapons system being put into the force until 2026, 2029, and 2031, respectively. By contrast, Russia says its entire nuclear deterrent will be fully modernized by 2021, having begun the effort in 2006.

#### The Threat Environment

It is important to look at other nuclear powers to get a full picture of the emerging strategic landscape. Russia continues to add to its arsenal of theater nuclear weapons, which are not under arms control limits. China, according to the Nuclear Posture Review, is "modernizing its nuclear weapons as part of an effort to prevent the United States from defending its allies and partners in the region."

In addition, from 2009–2016, Russian military and government officials threatened the United States and its allies more than two dozen times with the use of nuclear weapons. Over that same time period, China also explicitly noted that its submarine launched ballistic missiles could destroy American West coast cities. North Korea has also regularly threatened to turn Seoul or New York or Tokyo into a "sea of fire."

Clearly, as the United States delayed modernization and dramatically reduced its nuclear arsenal through arms control, other nuclear powers including major American adversaries did not mimic this restraint.

The United States, as it has for decades, needs advanced capabilities to respond to the advances of its adversaries. The threat environment does not stay static. Staying ahead of the threat lessens the chances an adversary will consider a reckless attack. To the extent America's leaders know the nuclear forces are deteriorating, they may be less willing to rely on deterrence to successfully challenge America's adversaries.

For example, when the United States delayed modernization of its nuclear deterrent in the 1970s, the Soviet Union toppled the governments of more than a dozen countries. In the view of KGB Chairman Andropov, the "correlation of forces" was moving markedly toward the Soviets. Moscow was increasingly willing to take risks such as deploying nuclear missiles in Europe, invading Afghanistan, and supporting terror groups such as the Red Brigades, Black September, the IRA, and Baader-Meinhof gang.

To avoid another similar decade of retreat and the rise of what was termed "Hollow Army," the United States must commit itself to a nuclear modernization effort.

#### Modernization and Arms Control

Critics also believe that modernization will be inconsistent with America's arms control obligations, specifically the obligation to stay within the limits of the 2010 new Star Treaty.

However, the Nuclear Posture Review calls for a nuclear force that is consistent with being "prepared for and receptive to future arms control negotiations ... as arms control is an important tool for managing competition and building predictability and transparency between nuclear armed states."

Moreover, America must have a "hedge" to maintain "flexibility to respond to a variety of current threats while preparing for future uncertainties." This means if the Russians abandoned New START treaty and expanded their nuclear forces, America would have to match their capability to maintain deterrence.

Modernization of the nuclear force is now threat-driven, according to Gen. John Hyten, head of U.S. Strategic Command. As U.S. adversaries build and deploy nuclear forces of greater capability, the United States has little choice but to do the same. By delaying those choices for nearly three decades, America largely pushed nuclear modernization into the next 20 years, such that the annual costs are higher than if modernization had taken place more gradually over a longer period.

#### Conclusion

As every previous administration has emphasized, the goal of the U.S. nuclear deterrent is "to deter nuclear and non-nuclear attack, assure allies and partners ... and hedge against uncertainty." Without a robust nuclear deterrent force, these tasks cannot be achieved. An aging force, rusting to obsolescence, won't be in the field to deter, it will be retired.

The good news is that, as a percentage of the defense budget and certainly compared to what America has spent historically on nuclear weapons, the costs to modernize are relatively modest. The United States must choose between keeping its deterrent force or gradually disarming. In the face of the threats America faces, modernization is the smart option: relatively cheap, stabilizing, and consistent with deterrent needs and arms control goals and obligations.

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# **ABOUT THE USAF CUWS**

The USAF Counterproliferation Center was established in 1998 at the direction of the Chief of Staff of the Air Force. Located at Maxwell AFB, this Center capitalizes on the resident expertise of Air

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

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

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

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

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