Feature Report

"Fiscal Year 2019 Stockpile Stewardship and Management Plan – Biennial Plan Summary Report to Congress". Published by the National Nuclear Security Administration; October 2018


The Department of Energy/National Nuclear Security Administration's (DOE/NNSA) Fiscal Year 2019 Stockpile Stewardship and Management Plan – Biennial Plan Summary (SSMP) describes DOE/NNSA's plans to ensure the safety, security, and effectiveness of the U.S. nuclear weapons stockpile and to maintain the scientific and engineering tools, capabilities, and infrastructure that underpin the nuclear security enterprise. The SSMP is a companion to the Prevent, Counter, and Respond: A Strategic Plan to Reduce Global Nuclear Threats report, which outlines NNSA's equally vital missions to reduce the threats of nuclear proliferation and nuclear terrorism. In keeping with our commitment to Congress, updated versions of these reports are published each year.

The fiscal year (FY) 2019 SSMP summarizes the activities being performed within DOE/NNSA's national laboratories, production facilities, and security site in support of our enduring national security missions. In particular, this report describes the path to completing production of W76-1 warheads by FY 2019; delivering the first production unit of the B61-12 gravity bomb by FY 2020; delivering the first production unit of the W88 Alteration 370 by FY 2020; and achieving a first production unit of the W80-4 warhead by FY 2025. With four modernization programs underway, NNSA is at its busiest since the Cold War era.

The FY 2019 SSMP also reflects DOE/NNSA's increased commitment to revitalizing and reinvigorating the facilities and corresponding infrastructure that make up the nuclear security enterprise. DOE/NNSA infrastructure has long been underfunded and overdue for the upgrades necessary to create a modern, efficient, nuclear complex that can meet NNSA's national security missions today and into the future. With the assistance and support of Congress, NNSA will be able to continue to halt the growth of deferred maintenance and modernize the nuclear security enterprise. As expressly stated in the Nuclear Posture Review (DOD 2018), there is no margin for further delay in the sustainment of a modern, resilient, and responsive infrastructure for the enterprise.

Continued investment in the repair and recapitalization of DOE/NNSA's laboratories, production facilities, and security site are crucial to NNSA's capabilities and most importantly, to our workforce. NNSA's workforce is our greatest asset, and providing quality facilities is necessary to recruit and retain the world-class scientific and engineering talent on which our nuclear deterrent, and indeed the security of the United States, so greatly depends.
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NUCLEAR WEAPONS

Homeland Preparedness News (Washington, D.C.)

GAO Assisting Nuclear Arsenal Budget Estimate Prep
By Douglas Clark
Nov. 6, 2018

The Government Accountability Office (GAO) is assisting the Departments of Defense and Energy in updating 10-year nuclear arsenal cost estimates and reporting them to Congress.

GAO officials said an essential element of the effort involves capturing fundamental programmatic changes in nuclear weapon modernization plans resulting from the February 2018 Nuclear Posture Review (NPR), which establishes policy on U.S. nuclear forces.

GAO assessment of the Department of Defense’s (DOD) and Department of Energy’s (DOE) budget estimating methodologies determined the departments had taken some steps to address the GAO’s prior recommendations on their methods, though the recommendations have not been adequately addressed.

The strategic missiles, submarines, and aircraft are aging and being deployed beyond their intended service lives, officials said. Any of the critical facilities for nuclear weapons research, development, and production date back to the 1940s and 1950s, revealing that estimates show nuclear sustainment and modernization efforts are expected to cost billions of dollars over the next decade.

Section 1043 of the National Defense Authorization Act (NDAA) for Fiscal Year 2012 requires the President, in consultation with the Secretary of Defense and the Secretary of Energy, to submit a report on the plan for the nuclear weapons stockpile, complex, delivery systems, and command and control system for each of fiscal years 2013 through 2023.

GAO officials said the agency analyzed the budget data underlying the estimates in the joint report, assessed DOD’s and DOE’s implementation of our prior recommendations on budget estimating methodologies, and met with DOD and DOE officials regarding the analysis.


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National Defense (Arlington, Va.)

Columbia-Class Program Must Navigate Sea of Risks
By Jon Harper
Nov. 5, 2018

The Navy’s program to build a new ballistic missile submarine that would remain on patrol until the 2080s faces a number of hurdles, raising concerns among service officials and analysts that the first boat might not be ready on time.

The Columbia-class is the Navy’s No. 1 acquisition priority as it seeks to replace aging Ohio-class platforms, which are slated to begin reaching the end of their service lives in the early 2030s.
The Navy plans to procure the first of 12 boats in fiscal year 2021, and have the lead ship on patrol by 2031. General Dynamics Electric Boat is the prime contractor for the initiative.

The effort is currently on track, Chief of Naval Operations Adm. John Richardson said at a conference in September. But he has concerns.

“I said on track and that’s true, but it is [just] right on track ... and so we need to find some margin in that program, some margin in schedule in particular,” he said.

“In a program of this complexity it’s just a fact of life that there are going to be things that will surprise us going forward, and so we need to ... build in enough margin to accommodate those surprises,” he added.

The Columbia will include new technologies not found on previous boats. Traditional submarines use steam turbines, but the next-generation will have a stealthier all-electric propulsion system.

“That’s the element of the ship that is the most untested,” said Bryan Clark, a senior fellow at the Center for Strategic and Budgetary Assessments and a former Navy submarine officer. “It’s mostly new engineering that has to be done in order to facilitate that.”

The Columbia is also expected to be equipped with a life-of-the-ship nuclear reactor, which will eliminate the need for midlife refueling.

“There is a little bit of technical risk,” said Clark, who previously served as chief engineer and operations officer with the Navy’s nuclear power training unit. "Life-of-the-ship cores is what the Virginia-class has, but that’s a 30-year ship, and here we’re talking about a ship that’s supposed to last up to 50 years."

The reactor technology is well understood, he added. But “the area where the risk lies is primarily on how those [shipboard] materials behave in an environment where they’re getting exposed to radiation for a longer period of time.”

Adm. James Caldwell Jr., director of the naval nuclear propulsion program, said the service will start buying reactor plant heavy components this year.

There is margin in the schedule to accommodate manufacturing and delivery challenges, he told National Defense at a recent conference, but “we have to work hard at it.”

Some technologies and manufacturing techniques that will be used on the new boat will first be incorporated on attack submarines, but the Columbia will be a much larger platform.

“It’s two-and-a-half-times the size of a Virginia-class submarine,” Caldwell noted. “That is an enormous project.”

The industrial base for nuclear reactors is small with a limited number of vendors making critical components for the Navy. Industry is capable of meeting military requirements, “but it takes a lot of energy to sustain that,” Caldwell said during a panel discussion at the conference.

Michael Wallace, a senior adviser at the Center for Strategic and International Studies, said the commercial nuclear power industry is hurting. That’s bad news for the Navy.

“This industry will not make it unless we take steps to reinvigorate” it with government assistance, he said during the panel. “We are continuing — if not accelerating — in a decline, impacting not only domestic nuclear energy but also the infrastructure to support naval propulsion and ... our weapons complex.”
Meanwhile, the Navy is working on what will be the most important part of the new submarine — its strategic weapon system. Each Columbia-class boat will have 16 nuclear missile tubes, serving as a deterrent against any nation that might seek to launch an atomic strike against the United States.

Much of the technology that will be installed will have already been fielded on the Ohio-class, noted Capt. Doug Williams, technical director for the Navy’s strategic systems programs, or SSP.

The service has already completed life extension work on the Trident II D5 missile, and the new D5LE variant was first fielded last year.

Additionally, the first of a series of scheduled flight tests to determine the overall operational reliability and accuracy of the weapon system was successfully conducted in June, Williams said in an interview. “That was a huge milestone.”

“The missile is absolutely not changing” for the Columbia-class, he noted. “I’m taking a missile off of an Ohio and I am on-loading it onto Columbia” when the new boat is ready, he said.

Subsystems will be modernized through SSP’s shipboard integration initiative.

“We will pull through the shipboard system and repackage it, which will have the same functionality and capabilities” as the one on the Ohio, Williams explained.

The Navy’s decision to use an existing proven weapon system capability will save money, he noted. “That’s one less thing you have to go invest in,” Williams said. “It just brought down a ton of technological risk.”

The service is trying to further reduce risk by setting up a strategic weapons system ashore facility in Cape Canaveral, Florida, that will include the new common missile compartment that the United States is co-developing with the United Kingdom. The Royal Navy plans to install it on its new class of Dreadnought subs.

“All the strategic weapons systems that are going to be on Columbia will be installed and available [at the Cape Canaveral facility] as we go into shipboard fabrication and installation,” Williams said.

“All those procedures will be proofed prior to us having to do it for real at the shipyards.”

Williams said the repackaging work will not be too technologically challenging. The greater concern is the industrial base.

“The challenge that we’re going to have is in the production of the subsystems,” he said. “We haven’t done it on that scale in a while.”

This will be the first time in about 25 years that the Navy has had to exercise the process of building and delivering an entire strategic weapon system, he noted. Each of the subsystems will be produced by a different industry partner, with SSP as the lead integrator.

“The challenge is ensuring that the production lines are up, in tune, producing qualified hardware that get delivered on the schedule that the shipyard needs,” he said.

Back in the early 1980s when the Trident II D5 system was under construction, prime contractors did most of the work. But that has changed, Williams said, with the majority of work now being done by sub-tier vendors.

“That has to be a focus for all program managers and our industry partners, ensuring that that’s done and done correctly,” he said. “For the most part, we’re pretty comfortable with the team we have and our industry base that produces the weapons systems.”
The Columbia program has already run into problems with its missile tubes. In August, Defense News reported that substandard welds were discovered in some of the units that manufacturer BWXT Inc. delivered to Electric Boat, prompting an investigation by the Navy.

“The concerns right now really center on what the implications are of this most recent quality control problem ... and what kind of delays that could cause depending on what the corrective actions are,” Clark said.

The missile tube manufacturing or inspection processes might have to be changed, he noted. “That could mean that the tubes will be more expensive or take longer to make, which could cause delays in the program,” he said. “There are some open questions about how to recover from this.”

Naval Sea Systems Command spokesman William Couch said the service and industry are taking steps to address the problem.

“The Navy is working with the shipbuilder to mitigate schedule impacts associated with the missile tube welding issue,” he said in an email. “The shipbuilder and Navy have completed initial bounding actions, have validated the state/quality of other tube vendors, and are aggressively pursuing actions to recover affected tubes and expedite delivery of new tubes.”

General Dynamics did not respond to a request for comment about Electric Boat’s supply chain.

Couch said the Navy planned for early construction of the common missile compartment, including missile tubes, in case problems were encountered.

Despite the welding issue, the program remains on track for construction of the lead vessel to begin in fiscal year 2021, he said, adding that the Navy and Electric Boat are “aggressively” working to improve schedule margin.

Meanwhile, Richardson said service leaders are considering putting the Columbia on a tighter leash.

“A program of this importance ... requires perhaps some increased oversight so that we're not making mistakes and eating into ... a program that you know has very thin margins already,” he said.

As of press time, the office of Assistant of Secretary of the Navy for Research, Development and Acquisition James “Hondo” Geurts had not provided comment about whether any changes in oversight have been made in recent weeks.

Technical risk and supply chain issues aren’t the only challenges facing the project. Major cost overruns must also be avoided. The Navy has estimated the total acquisition cost for the program to be $122.3 billion in fiscal year 2017 dollars, with the procurement cost of the lead ship coming in at $8.2 billion, according to the Congressional Research Service.

“The accuracy of the Navy’s estimate is a key consideration in assessing the potential affordability of the Columbia-class program, including its potential impact on the Navy’s ability to procure other kinds of ships,” said Naval Affairs Specialist Ronald O'Rourke in a recent CRS report titled, “Navy Columbia-Class Ballistic Missile Submarine Program: Background and Issues for Congress.”

Some of the Navy’s other platforms — such as the Gerald R. Ford-class aircraft carrier, the San Antonio-class amphibious ship and the littoral combat ship — have “proven to be substantially more expensive than the Navy originally estimated,” he noted.

But Clark said the Columbia won’t necessarily fall into that trap.

“This wasn’t like other acquisition programs, where you come in with an aspiration number and then you go figure it out when you actually start building it,” he said. “They put a lot of effort into
the engineering and analysis of this ship class to determine the cost upfront, so I think the cost estimate they have is pretty accurate.”

Politics will also come into play as lawmakers decide where to spend money. Critics of the Pentagon’s plan for nuclear modernization — which also includes new bombers, ground-based missiles and air-launched cruise missiles — have argued that it is too expensive, destabilizing and should be scaled back.

Todd Harrison, director of defense budget analysis at the Center for Strategic and International Studies, said the Columbia will likely avoid the budget ax.

“That program, I think, is actually very protected because that’s the most survivable leg” of the nation’s nuclear arsenal, he said during a briefing with reporters.

Ohio-class ships that they’re replacing are reaching the end of their life, he noted. “You’re just not going to be able to get much else out of them, so you’ve got to keep production of the Columbia-class going.”

While it’s unlikely that lawmakers would want to completely scrap plans for modernizing the at-sea deterrent, they could look for ways to reduce its cost by slowing the construction rate for the new ballistic missile submarines, also known as SSBNs, Clark said.

Tough choices for modernization might have to be made, he noted.

“If a new Congress comes in and decides that they want to spend less on the military, and they want to spend less on shipbuilding as a part of that, then the Navy will try to protect the SSBN funding, which will mean reductions in other shipbuilding accounts,” he said.

However, the service can’t guarantee that the program won’t see any cuts. Lawmakers may want to direct funding to other shipbuilding projects in their districts, he noted.

“The Navy says it’s their top priority, but, of course, Congress decides where money gets spent,” Clark said. “Congress may say, ‘Well, no, ... we want to protect those other shipbuilding programs. So to do that, we’re going to accept some reductions in the SSBN spending.’ And that will translate into a smaller [Columbia-class] fleet, just kind of by necessity.”

— Additional reporting by Mandy Mayfield


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National Defense (Arlington, Va.)

**Minuteman III Replacement Program Moves Toward Next Phase**

By Nick Adde

Nov. 2, 2018

The current ground-based strategic deterrent system is reaching the end of its useful lifespan. First installed at Northern Tier Air Force bases in 1968, the LGM-30 Minuteman III intercontinental ballistic missiles were intended to serve for a decade.

Fifty years later, the Minuteman III remains in place as the land-based component of the nation’s strategic triad – complementing nuclear-weapons systems that are deployed on the Air Force’s strategic bombers and Navy’s ballistic-missile submarines.
As the legacy platform ages, the Air Force and industry are moving forward with plans to replace it with a new ground-based strategic deterrent, or GBSD.

“Our existing systems are getting old. They need to be replaced,” said Ann Stefanek, an Air Force spokesperson.

Tom Karako, senior international security program fellow at the Center for Strategic and International Studies, said, “The Trump administration, like Obama before it, is going over everything — all of the options — and saying, ‘We really need to replace this, and also nuclear command and control.’”

Mark Gunzinger, a senior fellow at the Center for Strategic and Budgetary Assessments, said: “We are reaching the limit to our ability to continue to extend the service life of the Minuteman III.”

Last August, the Air Force selected two companies — Boeing and Northrop Grumman — as the two primary competitors to design and build the GBSD. Both firms are now entering the second of a three-year, technology maturation and risk reduction phase, funded at roughly the same amount of money for each. Northrop Grumman received $350 million, while Boeing got $349 million.

“We’re supposed to inform [the Air Force about] requirements going into the next phase — engineering, manufacturing and development,” said Patricia Dare, team lead for strategic deterrence systems at Boeing.

Northrop Grumman declined to be interviewed for this story.

The Air Force is expected to award a contract sometime around next August. Once complete, the new GBSD systems would be installed in existing silos and workspaces at three Air Force bases — F. E. Warren in Wyoming, Minot in North Dakota, and Malmstrom in Montana. Under terms of the New Strategic Arms Reduction Treaty (New START) with Russia, GBSD will be limited to 400 operational weapons. The system should be ready by the end of the next decade.

“One of the things we’re doing with this contract is keeping competition longer in the process than we may have done in the past,” Stefanek said. “When you have competition, typically it drives costs down.”

Stefanek said the service does not expect the budgetary process to change much in the meantime. The Air Force will come forward with a five-year proposal, she said, with budgetary projections based on cost estimates that emerge as the competition and down-selection processes progress.

The two companies are focusing on a complete replacement of the Minuteman III system. The much criticized floppy discs will go away. Other parts that are aging out are becoming irreplaceable. Sustainment costs would entail paying companies to manufacture parts and produce software that has long disappeared from the commercial market. Maintenance of archaic propulsion and guidance systems simply do not make sense anymore. Analyses have determined that it would be cheaper in the long run to replace the system entirely, officials have noted.

“Sustainment costs of the current system are expected to continue to rise as it gets older,” Stefanek said. “We’re going to have to put money in either to fix the existing system or put a new system in.”

Once the award is issued next year, the winning company will enter an engineering, manufacturing and development phase. The designers will move forward with the understanding that the ICBM they are building will be expected to last more than 50 years — just like its predecessor. It will need to incorporate a modular design, so that parts and systems can be upgraded during its lifespan as both technologies and threats change over time.
“Replacement of the entire weapon system includes the aerospace vehicle equipment — the missile — as well as the infrastructure supporting the weapon system,” said Dare. “It’s very important to get the new system in place with capabilities that will meet emerging threats. We want to make sure the warfighter has the best capabilities to execute the mission.”

For Gunzinger, the plan to replace Minuteman III with GBSD must be taken into consideration in the context of the need to enhance the entire nuclear triad. As an Air Force officer, he piloted B-52 bombers. After retiring from active duty, he served as deputy assistant defense secretary for force transformation resources under President George W. Bush.

“When I first joined SAC [the Strategic Air Command], there was a pretty robust missile force,” Gunzinger said.

The strategic arms limitation treaties between the United States and Soviet Union significantly reduced those numbers before, during and after the Cold War, Gunzinger said. Funding for strategic defense forces, which was as high as 11 percent of the budget at one point, eventually dropped to a low of 2.5 percent.

“That was enough to sustain our triad with incremental upgrades and life-extension programs, but not enough to replace the Minuteman III,” Gunzinger said.

“However, at the very same time DoD funding fell off, Russia never stopped. They’ve modernized all three legs and continue to do so. China has an acknowledged strategic triad as well,” he added.

Challenges would come with any decision to simply upgrade rather than replace Minuteman III, he noted.

“For example, take the engines. Those of two of the stages are made out of metal, and the third is a composite. The first two probably could be scrubbed out and the propellant could be re-poured, but there’s going to be some attrition. We wouldn’t know until we do that,” Gunzinger said.

The composite stage cannot be re-poured, he said.

Karako said it is significant that the GBSD acronym does not mention the word “missile.” The distinction implies the necessity to replace everything associated with Minuteman III — the host of ground-based systems that accompany the ICBM force, including command and control and ground stations.

“It’s not just holes and missiles. It’s lifecycle costs,” Karako said.

The winning company should, however, be cognizant of components in the old system that may merit adaptation into a current and useable form. For instance, he cites the fact that the computers in silos still require floppy disks drew incredulous responses when reported widely in the media a little more than two years ago. Floppy disks, Karako notes, cannot be easily hacked.

“There are other elements of analog, which from the scheme of things might be just fine or have qualities we don’t necessarily want to dispense with,” Karako said. “That said, there are a lot of operations and maintenance things that can be improved.”

New ground stations and equipment would be easier and cheaper to maintain, he said.

Karako is ready to counter any contentions that ICBMs have outlived their usefulness and are too expensive to maintain or replace.

“You have to emphasize the strategic context. Every time the U.S. looks at the possibility of getting rid of the ICBM, sure enough it tends to come back to the same conclusion,” Karako said. “Pound for pound, dollar for dollar, the ICBM leg is relatively inexpensive and provides a significant contribution to the overall nuclear deterrent provided by the triad.”
Bombers and submarines are effective, but are limited in number, Karako said. Ground-based ICBMs provide promptness, range and distribution. Their presence forces potential adversaries to double down in their own strategic deterrence efforts. The qualities and characteristics of a ground-based force, he believes, simply cannot be replaced. Even though arms-limitation treaties let potential adversaries know how many warheads the United States can bring to bear, the very presence of a large number of ground-based silos would require them to commit a significant chunk of their resources toward eliminating them.

“If somebody wants to decapitate our ICBM force, they’d have to go all in,” Karako said. “Russia would have to expand much of its nuclear force to hit the silos in the American West, and they still wouldn’t be able to hit our other [triad] legs.”

In due time, Karako said, the Air Force will award the contract and the modernization will take place.

“It’s the right thing to do. It’s not an artificial timeline that has to be met,” he said.

To fully understand what is at stake and what is required, Karako said that the focus should go beyond simply counting the number of warheads and look instead at the uniqueness of the protection the strategic triad provides.

“We don’t know what the future holds. We’re building systems that are going to be around for many decades to come,” Karako said. “It is important that we be cautious in terms of not dispensing with something today. The fact is, these particular qualities and contributions proved useful in the past. We should be careful about dispensing with this for what could be an uncertain future.”


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Defense News (Washington, D.C.)

Here’s When All of America’s New Nuclear Warhead Designs Will Be Active — And How Much They’ll Cost

By Aaron Mehta

Nov. 2, 2018

WASHINGTON — Estimates for the cost of America’s nuclear warheads have gone up in the last year, as the government prepares to develop and maintain as many as nine new systems in the next 25 years.

The National Nuclear Security Administration’s fiscal 2019 Stockpile Stewardship and Management Plan, released Thursday lays out the investments that could be needed for the NNSA over the next two and a half decades.

The NNSA is a semiautonomous department within the Department of Energy. While the Defense Department manages the delivery systems of the nuclear force — ships, planes and missiles — NNSA oversees the development, maintenance and disposal of nuclear warheads.

However, NNSA costs are not just about the warheads, as requirements range from upgrading aging infrastructure, to increasing the production of plutonium pits, to securing facilities. The agency expects capital investments during this period could require spending between $61.1 billion and $90.7 billion, for example.
And the overall cost of replacing America’s nuclear arsenal will be much higher when factoring in the development of new cruise missiles, intercontinental ballistic missiles and bomber aircraft.

Kingston Reif of the Arms Control Association said the report “highlights the enormous scope of work already on NNSA’s overburdened plate, and the additional work that the Nuclear Posture Review proposes to pile on top.”

He pointed to a chart in the report showing NNSA’s budgetary estimate for the next 25 years has grown significantly in the year since the FY18 estimate — by about $75 billion over the previous estimate.

“NNSA claims that this increase ‘is generally affordable and executable,’ but that’s wishful thinking,” Reif said, noting previous concerns raised by the Government Accountability Office that NNSA could not meet its requirements with its planned budget.

The cost increase is partly driven by the Trump administration’s Nuclear Posture Review. Released early this year, the NPR called for two new nuclear warhead designs as well as an overall recommitment to the nuclear triad.

Here are the major warhead programs the agency is tracking as it assesses the nuclear stockpile for the next 25 years:

W76-1 — The W76-1, which is placed on the re-entry vehicle for the submarine-launched Trident II ballistic missile, will be the first completed program, with production slated to be finished during this fiscal year, NNSA estimates.

Completing that program is a major milestone, not just because of the capability it will provide, but because it is the first of the major life-extension programs NNSA has underway — something of a proof-of-concept for the agency going forward.

W76-2 — A new low-yield nuclear cruise missile warhead first announced in the Nuclear Posture Review, the W76-2 is the newest design, and hence in the earliest stages. The agency does not offer up an estimated price tag for the program, but the administration repurposed $65 million in funding during FY19 to begin development on the weapon, a variant on the W76-1.

Production for the W76-2 is slated to go into FY24, but whether it gets there depends on the outcome of next week’s midterm elections. Democrats oppose the warhead design, and Rep. Adam Smith of Washington, who is expected to become chairman of the House Armed Services Committee should Democrats take the House, said he will look to kill the development and use those funds elsewhere.

That production delay is “curious” to Stephen Young of the Union of Concerned Scientists, who notes NNSA produced roughly 1,600 W76-1s between 2008 and 2019.

“The 2018 Nuclear Posture Review declared the Trump administration’s intent to produce ‘a small number’ of this low-yield warhead, and it apparently is only a modest variation on the W76-1,” Young noted. “They produced more than a hundred W76-1s annually before; why would a small number of W76-2s take so long?”

B61-12 — The B61-12 program, which will replace the B61-3, -4, -7 and -10 variants with a new warhead design, will deliver its first production unit in FY20 and complete production by FY24. NNSA estimates the program will cost between $7.3 and $9.5 billion.

The B61 is America’s nuclear gravity bomb, and its upgraded variant will be certified on the B-2 the future B-21, America’s F-15, and F-16 fighter aircraft, and British and German Tornado aircraft under a NATO agreement. The F-35 is also planned to go through certification on the weapon at some point in the next decade.
W88 Alt 370 — This program, another warhead update for the Trident II ballistic missile, will deliver its first production unit by December 2019, with complete alternations by FY24. The life-extension program adds new fuzes and other technology to update the warhead. The program faces “a continued risk of late component design changes,” in part because the warhead is a co-design between the Air Force and Navy. NNSA estimates the program will cost between $2.4 billion and $3.1 billion, with $2.6 billion as the more likely cost.

W80-4 — This warhead design is for the Air Force’s long-range standoff weapon, or LRSO, a new air-launched nuclear cruise missile. Because the warhead is being designed at the same time as the LRSO delivery system — the first time in 30 years the two have been done in parallel — the program faces “unique” risks, the NNSA report says.

In addition, the program “experienced a loss of $120 million in productivity due to delays associated with Continuing Resolutions since the beginning of FY 2016. As a result, ramp-up of management and operating program staffing was constrained for 3 years across the entire nuclear security enterprise,” leading to a four-month delay from where the program ideally should be, the report states.

Overall, the agency estimates a program cost of $7.6 billion to $11.7 billion.

W78 replacement warhead — Designed to go aboard the Air Force’s next-generation ICBM, currently being competed as the Ground Based Strategic Deterrent program, it is the furthest out of the programs. The system was originally scheduled to go live in FY25, but a decision made in 2014 pushed the delivery date to FY30. Notably, NNSA now seeks to advance the program by a year in order to best sync up with the GBSD development schedule.

“Production is predicated on all newly manufactured components and a nuclear material manufacturing modernization strategy that relies on large, multi-year investments in component and material capabilities,” the report notes. “Program success is contingent on the development of new technologies to address antiquated design, material obsolescence, and performance expectations.”

The agency estimates the cost of the program will be between $9.9 billion and $15.1 billion.

Other future systems — NNSA says it will support the Pentagon as it launched an analysis of alternatives on a still-unnamed sea-launched cruise missile, the second new system announced in the Nuclear Posture Review. Until that program is completed, however, the agency will not start a formal program. And like the W76-2, the future of this system may depend on election outcomes.

NNSA also has space for two systems labeled Ballistic Missile Warhead (IW or BM-Y) and Ballistic Missile Warhead (IW or BM-Z), essentially two future warhead designs that could replace the W78. The cost estimate for the BM-Y ranges from $12.7 billion to $18.9 billion, with production starting around FY35; the estimate for BM-Z ranges from $14.2 billion to $20.6 billion, with production starting around FY41.


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Homeland Preparedness News (Washington, D.C.)

National Nuclear Security Administration Releases Annual Stockpile Stewardship, Nuclear Nonproliferation Report

By Kevin Randolph
Nov. 5, 2018

The Department of Energy (DOE) National Nuclear Security Administration (NNSA) recently released its annual reports outlining its efforts to maintain the U.S. nuclear stockpile and prevent the spread of nuclear weapons.

"The Trump Administration’s 2018 Nuclear Posture Review sets a clear course to modernize the Nuclear Security Enterprise for 21st-century threats," Lisa E. Gordon-Hagerty, Under Secretary for Nuclear Security and NNSA Administrator, said. "NNSA began work immediately to implement this guidance, and these two reports reflect our commitment to maintaining a credible nuclear deterrent and to reducing the threat of nuclear proliferation and nuclear terrorism."

The Fiscal Year 2019 Stockpile Stewardship and Management Plan (SSMP) and the Prevent, Counter, and Respond—A Strategic Plan to Reduce Global Nuclear Threats (NPCR) outline NNSA’s strategic direction for maintaining the U.S. nuclear stockpile as well as the agency's efforts to prevent the spread of nuclear weapons around the world and respond to nuclear and radiological threats, accidents or incidents. The reports also address infrastructure modernization and management of strategic materials.

This year’s SSMP addresses policy introduced by the 2018 Nuclear Posture Review and includes information on three warhead life extension programs and one major warhead alteration.

The FY 2019 NPCR provides an updated overview of NNSA’s “prevent-counter-respond” framework for the range of nuclear threats in today’s geopolitical environment. Challenges to the global nuclear nonproliferation regime include concerns about the nuclear ambitions of North Korea and Iran; terrorist threats in Europe and the United States; frequent and sophisticated cyberattacks; and the emergence of new and potentially proliferation-relevant technologies, NNSA said. The NPCR outlines a defense-in-depth strategy to reduce these threats.


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Homeland Preparedness News (Washington, D.C.)

Conference Addresses Chemical Terrorism

By Douglas Clark
Nov. 2, 2018

INTERPOL’s General Secretariat headquarters served as the backdrop for the recent Global Congress on Chemical Security and Emerging Threats conference, which was designed to address chemical terrorism and related factors.

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“This Congress comes at a pivotal time in the international security climate,” Jürgen Stock, INTERPOL secretary general, said. “We are seeing an increase in chemical weapon usage by non-state actors both in and outside theatres of conflict. We are also seeing a steady increase in the diversion or legitimate procurement of chemical precursors used to deploy explosive devices which harm law enforcement, military, and civilian populations worldwide.”

Officials said the three-day session, organized by INTERPOL, the Department of Homeland Security and the FBI, in coordination with the G7 Partnership Against the Spread of Weapons and Materials of Mass Destruction, explored specialized case studies highlighting emerging trends, identification of lessons learned and best practices relating to chemical incident attribution and response and evolving technologies and tactics.

“Whether we are from law enforcement, the military, government or industry, we all have a role to play in preventing and responding to the persistent and emerging threats in relation to chemical security,” Stock said.

The Congress provided a significant opportunity to close the coordination gap between law enforcement and industry to improve security throughout the lifecycle of chemicals of concern and develop an overarching chemical security culture.


Defense News (Washington, D.C.)

**Army’s Missile Defense Radar ‘Sense-Off’ Attempts to Hit Reset Button**

By Jen Judson

Oct. 31, 2018

WASHINGTON — The U.S. Army formally announced its plan to conduct a missile defense radar “sense-off” to replace the aging Patriot that will be included in its Integrated Air and Missile Defense system (IAMD) under development.

The purpose of this sense-off seems to be designed to hit the reset button on the Lower Tier Air and-Missile Defense Sensor (LTAMDS) program that has struggled to bring about a new radar for well over a decade.

But will this effort right the ship for the program, or send it further off course?

The Raytheon-made Patriot air and missile defense radar was first fielded in the 1980s, and the Army attempted to replace the system with Lockheed Martin’s Medium Extended Air Defense System, or MEADS, through an international co-development effort with Germany and Italy. But that program was canceled in the U.S. after closing out a proof-of-concept phase roughly six years ago.

Since then, the Army has studied and debated how to replace the Patriot radar with one that has 360-degree detection capability, while Raytheon continues to upgrade its radar to keep pace with current threats. It is acknowledged that there will come a point where that radar will not be able to go up against future threats.

Taking years to decide, the service finally moved forward on a competition to replace the radar last year and chose four companies to come up with design concepts for the capability — Raytheon, Lockheed Martin, Northrop Grumman and Technovative Applications.
Earlier this month, Raytheon and Lockheed were chosen to continue technology development under that program.

Tabula Rasa

Army acquisition chief Bruce Jette told Defense News just prior to the Association of the U.S. Army’s annual conference that the service wanted to hold a sense-off to identify available radar capabilities.

According to an Oct. 29 notice posted to the Federal Business Opportunities website, the sense-off will take place between May and June next year at White Sands Missile Range, New Mexico. Each vendor with a radar will have roughly two weeks on the range to demonstrate capabilities.

The sense-off is a separate effort to the technology development program in which Lockheed and Raytheon have been chosen to participate, and any vendor in the industry can come with a capability ready to be demonstrated, opening competition back up to the entire radar industry.

The Army is holding an industry day event Nov. 14-15 for interested parties.

And it seems, according to the Army’s new lead for AMD modernization, Brig. Gen. Randall McIntire, that the sense-off is a way of identifying means to redefine requirements to more rapidly pursue a radar replacement.

McIntire’s outfit is part of the Army Futures Command — activated in August and based in Austin, Texas — that is designed to aggressively modernize the force.

“There are a lot of different approaches to it,” McIntire told Defense News in a Oct. 30 interview. “It gets back to, I think, we were being too over-specific. [The Army] was really tying its hands, so we would like to see if there is a better way of doing it and it would be like best of breed, it would be like the best athlete. We are trying to get the best thing that we can get.

“We are pretty excited to see what we get from having a clean slate, and we are very hopeful that we are going to find something that is going to have increased battlespace.”

As the result of the sense-off, the Army plans to choose one vendor to build six prototypes by the end of fiscal 2022 to prove the whether the radar can be manufactured, according to the solicitation. A follow-on contract for additional radars is expected.

But McIntire said if there is more than one option that proves extremely promising during the sense-off, it’s possible a second vendor could be chosen to build prototypes.

“We’re trying to get the best that we can and buy smaller quantities, and then buy more of the next best thing,” McIntire said. “It’s really not about these long-term development programs that take 10-15 years to work their way through the cycle.”

The Army also has an eye on a next-generation sensor that would be fielded around 2037, but the service can’t wait that long for a new capability, according to McIntire.

What comes out of the sense-off he said will help the Army redefine what it wants in a radar. This means not much is laid out in terms of requirements in the solicitation — at least not publicly.

One thing the Army is asking for is the ability for the radar to continue to take one new capability through software upgrades over time to address advancing threats.

Within the solicitation, the Army did define power requirements and is asking that the radar is able to tie into the rest of its already chosen elements of IAMD such as the Integrated Air and Missile Defense Battle Command System, which is not yet fielded. But not much else is defined.

What about that 360-degree requirement?
Something not explicitly spelled out in the solicitation is the Army’s top requirement for a new radar — to have 360-degree detection capability — something that drove the need for a new radar in the first place.

While vendors who participate in the sense-off will receive a classified list of requirements, it’s unclear whether the 360-degree capability will be on that list.

McIntire told Defense News in an interview earlier this month that a 360-degree capability might not be the key attribute of the radar the Army is looking to field by 2023. But he added that it was something the Army cares about because of the threat environment.

Following the release of the solicitation, he added, there may be a variety of ways to ensure the system always sees the threat. If it turns out 360-degree detection is the best way, then the Army would shape requirements to reflect that.

With what appears to be a walking-back on the Army’s top requirement for a new radar, those who have long tracked the program have been left somewhat bewildered by the pivot.

“The secretary’s and chief of staff’s leadership in recognizing the need for multidomain operations in a complex and contested air environment stands at sharp contrast to rumors that leadership could remove the 360-degree requirement for LTAMDS,” Tom Karako, a missile defense expert at the Center for Strategic and International Studies, told Defense News on Oct. 31.

“The last Army Air and Missile Defense Strategy from 2012 has about 25 references to the importance of 360-degree coverage — one for every year the Army has been working on a 360 radar since the 1993 requirement for the Corps [Surface-to-Air Missile] SAM,” he said. “But the need is far greater than it was then.”

Without omnidirectional surveillance, tracking, fire control and fires, “the enemy will just kill you in your blind spots,” Karako added. “LTAMDS has been designed as a 360-degree asset. Taking it away belies its nature, it’s very reason to exist.”

While McIntire wouldn’t say whether the 360-degree capability had been officially eliminated from the requirements, he did say that the Army could still fight in an integrated way by “using a lot of different sensors” that can see the entire battlespace.

“I would just say there’s more than one way to do that. You could do it through the network or through defense design and understanding the threat,” he said. “I just think we are really trying to just step back and not over prescribe and see what we are going to get.”


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US ARMS CONTROL

The Hill (Washington, D.C.)

**Trump Administration Tells Congress Moscow Has Triggered New Sanctions**

By Morgan Chalfant

Nov. 6, 2018

The Trump administration has informed Congress that Russia has not complied with a series of requirements necessary for Moscow to evade a second round of U.S. sanctions over the poisoning of an ex-Russian spy in Britain.

The development, announced by the State Department and House Foreign Affairs Committee on Tuesday, means that a new tranche of sanctions on Russia will be automatically triggered under a 1991 law on the elimination of chemical and biological weapons — likely further deteriorating relations with Russia at a time of high tensions.

In a statement, State Department spokesperson Heather Nauert said the department is "consulting with Congress regarding next steps" as required under the law.

Foreign Affairs Committee Chairman Ed Royce (R-Calif.) said the administration has not given Congress details on what the sanctions would entail or a timeline on when they would be imposed, which he criticized as "unacceptable."

“No one should be surprised that Vladimir Putin refuses to swear off future use of weapons-grade nerve agents. It is unacceptable that the administration lacks a plan — or even a timeline — for action on the second round of mandatory sanctions required by U.S. law,” Royce, who is retiring at the end of this Congress, said in a statement Tuesday.

“In recent years, Russia has engaged in a pattern of brazen poisonings — including the March 14 nerve attack carried out on the soil of the United Kingdom,” Royce said. “The Trump administration needs to act quickly to uphold its own determination. Hesitation only encourages more Russian aggression.”

Under pressure from Congress, the Trump administration in August announced new sanctions on Russia over the use of a military-grade nerve agent in an unsuccessful assassination plot against ex-Russian spy Sergei Skripal in Salisbury last March.

The most damaging sanctions, imposed under the Chemical and Biological Weapons Control and Warfare Elimination Act of 1991, blocked exports of sensitive national security goods to Russia.

A second round of sanctions is automatically triggered three months later if the administration does not certify to Congress that Russia meets a series of strict conditions — including showing it is no longer using biological or chemical weapons in violation of international law and allowing United Nations inspections of its facilities to prove it.

The Trump administration faced a deadline on Tuesday to notify Congress as to whether Moscow had met the conditions under the law.

Leading up to the Nov. 6 deadline, it was widely expected that Moscow, which has denied any involvement in the Skripal poisoning, would not meet the conditions under the law.

The administration is required to choose three from a group of six categories of sanctions under the law. The options include further restrictions on U.S. exports to Russia; restrictions on imports; a suspension of diplomatic relations with Moscow; a suspension of air travel to and from the United
States by Russian government-owned air carriers; and sanctions preventing Russia from receiving multilateral development bank assistance or U.S. bank loans.

"The Department is consulting with Congress regarding next steps as required 90 days after the initial determination on August 6, 2018," Nauert said Tuesday. "We intend to proceed in accordance with the terms of the CBW Act, which directs the implementation of additional sanctions."

It will likely take several weeks for the new sanctions to go into effect after the details are announced, as was the case when officials disclosed the first round of penalties in August.

The developments are likely to exacerbate tensions between the U.S. and Moscow, which are already running high as a result of President Trump’s decision to withdraw from a decades-old nuclear arms pact with Russia and Moscow’s interference in the 2016 election.

Relations with Russia have deteriorated despite Trump’s wish to build better ties with Russian President Vladimir Putin.

The two leaders were expected to meet on the sidelines of the Armistice Day celebrations in Paris on Nov. 11, but Trump cast doubt on that Monday, saying instead they would meet at the Group of 20 summit in Argentina in late November.


VOA (Washington, D.C.)

US, South Korea to Launch Joint Working Group on North Korea

By Christy Lee

Nov. 3, 2018

WASHINGTON —

The United States and South Korea have agreed to launch a joint working group to coordinate their North Korea sanctions, a move that reflects Washington’s attempt to bridge the allies’ diverging approaches to denuclearizing the Kim regime, experts said.

“The two governments agreed on establishing a new working group that would further strengthen our close coordination on our diplomacy, on our denuclearization efforts, on sanctions implementations, and inter-Korean cooperation that comply with the United Nations sanctions,” Robert Palladino, the State Department’s deputy spokesperson, said.

“So this is an additional step that we’re taking that Special Representative (Stephen) Biegun and his team will be leading,” Palladino said.

The announcement Tuesday came hours after Biegun returned from Seoul, where he discussed “diplomatic efforts to achieve the final, fully verified denuclearization of North Korea,” Palladino added.

The agreement for a joint working group comes as the denuclearization efforts of Washington and Seoul are increasingly at cross-purposes.

Sanctions pressure
Washington has been keeping sanctions pressure on North Korea as it engages in diplomacy, while Seoul has been prioritizing improving inter-Korean ties through joint economic activities that could violate sanctions, which concerns Washington.

“Obviously, coordination has been a problem this year,” said Douglas Paal, vice president for studies at the Carnegie Endowment for International Peace. “The working group reflects concern in the U.S. that [Seoul] is getting too far out in front. … I hope this provides a systematic way to manage differences.”

Robert Manning, a senior fellow at the Atlantic Council, welcomed the formation of the new working group that he expects would keep inter-Korean activities in balance with the objective of denuclearization.

“I commend the administration on this much-needed initiative,” Manning said. “There have been two separate tracks of diplomacy toward North Korea: North-South reconciliation and cooperation, and U.S.-North Korea denuclearization talks. So this working group is aimed at keeping both sets of negotiations closely linked so that the North-South efforts do not get too far ahead of denuclearization efforts.”

Scott Synder, director of the Program on U.S. Korea Policy at the Council on Foreign Relations, points out that the need for a working group has been “apparent since the Pyongyang summit.”

After signing military agreements aimed at reducing tensions and agreeing to pursue inter-Korean economic projects at the Pyongyang summit in September, Seoul and Pyongyang heightened their calls for sanctions relief.

Synder said Seoul’s “overtures and relaxation of tensions with North Korea should be accompanied by clear communication and effective coordination as related to sanctions.”

Manning criticized South Korean President Moon Jae-in’s initiative in advancing inter-Korean economic ties that counter international sanctions.

“President Moon has begun to bump up against the limits of North-South cooperation that are inconsistent with U.N. Security Council sanctions,” Manning said.

‘There will be limits’

“There will be limits to what the consultative group can achieve,” said Troy Stangarone, senior director of the Korea Economic Institute, unless Washington and Seoul have “a common approach to North Korea that entails an agreed [upon] set of objectives.”

According to Joshua Stanton, a Washington-based attorney who helped draft the North Korea Sanctions Enforcement Act in 2016, getting “back on the same page” will require Washington and Seoul to “come to a common understanding of sanctions.”

“It’s very clear to me that the two governments are pursuing policies that are not only poorly coordinated, but they are directly conflicting with each other,” Stanton said.

William Newcomb, a former U.S. Treasury official who was on the U.N. Security Council’s Panel of Experts on North Korea, said Washington should clarify “the applicability of U.S. sanctions” to Seoul through the working group and advise it to “deflect too-hasty impulses to seek sanctions relief for North Korea.” He added, “At this stage, [it is] impossible to tell if it will be a consequential player or not.”

While keeping the dialogue open and engaging with Pyongyang, Washington has been calling for Seoul to maintain pressure on North Korea.
During a radio interview Wednesday, U.S. Secretary of State Mike Pompeo said, "I'll speak with my counterpart next week."

"And then we do have the intention of President [Donald] Trump and Chairman Kim [Jong Un] getting together before too long, hopefully early in the next year," he said.

On Thursday, on another radio show, Pompeo said, "President Trump's been clear. The economic sanctions will not be lifted until such time as we have had the capacity to verify that they have eliminated their nuclear program."

Stanton said South Korea has been undermining the U.S. policy of maintaining sanction pressures on Pyongyang as it seeks economic development with the North.

“The whole point of U.S. policy is that North Korea has to choose between economic development and nuclear weapons,” Stanton said. “North Korea has the Byongjin policy, which is that we can have both.”

Pyongyang’s Byongjin policy, set forth in 2016 by North Korean leader Kim, aims to develop nuclear weapons and the economy simultaneously.

Stanton continued, ‘The South Koreans seem to be taking the North Korean side here by saying, We're going to give you economic development ... while we pretend to demand that you denuclearize.'...And what South Korea is essentially doing is undermining that pressure and, therefore, undermining the U.S. policy."

In September, the U.S. Treasury Department made calls to seven South Korean banks, raising concerns about their plans to open branches in North Korea.

According to South Korea’s Financial Services Commission, the Treasury Department said it was “deeply concerned” about Seoul's possible financial cooperation with the North during the call.

Financial dealings

The Treasury’s calls triggered widespread speculation that the U.S. might consider taking action because of South Korea’s possible financial dealings with North Korea. South Korean banks have been preparing to take advantage of financial opportunities in Pyongyang since inter-Korean relations began thawing earlier this year.

The Treasury Department, however, said its direct calls to South Korean banks were “routine interactions” that should not be taken as a signal for a future sanctions action, in an email message sent to VOA’s Korean Service this week.

“While we do not speculate on possible sanctions violations or comment on prospective actions, routine interactions should not be misinterpreted as telegraphing a future sanctions action,” a Treasury spokesperson said in the email.

Newcomb said, “Treasury was acting prudently to forestall having to take formal action against the [South Korean] banks should they have proceeded with plans to connect with [North Korea] in violation of sanctions. ... Should any [South Korean] banks nonetheless open a branch in [North Korea], it would be in flagrant violation of U.N. sanctions.”

Stanton said the consequence of violating sanctions regulations include steep civil penalties and “the loss of access to corresponding banks in the United States.” The latter, he said, would “destroy a bank or turn the bank into a small neighborhood bank instead of an international bank.”

U.N. sanctions prohibit creating ventures in North Korea, including financial institutions, and helping Pyongyang gain access to the international financial system.
The Treasury Department’s Financial Crimes Enforcement Network (FinCEN) issued an advisory Wednesday, calling for financial institutions to heighten compliance with U.N. and U.S. sanctions on North Korea. The sanctions ban them from engaging in all transactions involving North Korea.

William Brown, a former U.S. intelligence official and a professor of North Korean economy at Georgetown University, said establishing a capitalistic banking system in North Korea first requires economic reform.

“Even if the nuclear issue is resolved and sanctions were removed, the fact remains North Korea’s still highly socialist system can’t deal with normal finances,” Brown said. “There are still tremendous obstacles before any kind of branch bank can be established in North Korea.”

Moon said Thursday that Kim will visit Seoul “soon.” Kim’s visit to South Korea will be the first by a North Korean leader.

Also Thursday, a no fly-zone and ban on military drills near the demilitarized zone went into effect as agreed at the September inter-Korean summit.

Washington and Seoul are considering whether to conduct joint military exercises next year, and the decision will be made by December.

Paul Park contributed to this report, which originated with the VOA Korean Service.


Trump Set to Reimpose All Nuclear Sanctions on Iran

By Rebecca Kheel

Nov. 2, 2018

The Trump administration plans to reimpose the last set of sanctions lifted under the Iran nuclear deal early next week, administration officials announced Friday.

Secretary of State Mike Pompeo confirmed in a call with reporters that the administration will grant waivers to eight “jurisdictions” when it reimposes oil and gas sanctions on Monday.

“This part of the campaign about which we’re speaking today is simple: It is aimed at depriving the regime of the revenues that it uses to spread death and destruction around the world,” Pompeo said.

“We expect to issue some temporary allotments to eight jurisdictions, but only because they have demonstrated significant reductions in crude oil and cooperation on many other fronts and have made important moves toward getting to zero crude oil importation.”

Pompeo did not specify which eight jurisdictions are getting waivers, saying a list would be released Monday. Asked if the use of the word "jurisdiction" meant that the European Union, a group of 28 countries, is getting waiver, Pompeo said the E.U. is not being granted a waiver.

In May, Trump announced that he was withdrawing the United States from what he once called the “worst deal ever negotiated.”
The 2015 agreement, reached by the Obama administration, gave Iran billions of dollars in sanctions relief in exchange for curbs on its nuclear program.

The agreement was between the United States, Iran, Germany, the United Kingdom, France, China and Russia.

In withdrawing from the agreement, Trump gave companies and countries doing business with Iran two “wind-down” periods before the United States would reimpose sanctions.

The first 90-day period ended in August. At that point, the United States reimposed sanctions on transactions with U.S. dollar banknotes; trade in gold and precious metals; direct or indirect sales of graphite, raw or semi-finished metals; and Iran’s automotive sector.

But the more significant sanctions aren’t being reimposed until the end of the second, 180-day period. The last day of that period is Sunday, with sanctions set to be reimposed at midnight.

In addition to sanctions on Iran’s energy sector, Monday’s sanctions will target Iran’s shipping, shipbuilding and financial sectors.

Of the eight jurisdictions getting waivers for the energy sanctions, Pompeo said two will reduce their imports to zero within weeks, while the other six will import “at greatly reduced levels.”

Reports citing unnamed officials have said India, South Korea, Japan and Italy will be among the eight getting waivers.

The Trump administration has “made it clear that [the waivers] are temporary,” Pompeo said, arguing fewer exemptions are being granted than the Obama administration had done prior to the nuclear deal.

“Not only did we decide to grant many fewer exemptions, but we demanded much more serious concessions from these jurisdictions before agreeing to allow them to temporarily continue to import Iranian crude oil,” Pompeo said.

Speaking alongside Pompeo, Treasury Secretary Steven Mnuchin also confirmed that the United States would not push for the total expulsion of Iran’s financial sector from a global banking network known as SWIFT.

The decision is likely to be a disappointment to Iran hardliners in Congress and elsewhere who have been pushing for Iran to be completely disconnected from the network.

Mnuchin, though, argued that there has been “misinformation” on the issue and said SWIFT will not be treated differently than any other entity doing business with Iran.

That means, he said, that SWIFT would be subject to U.S. sanctions if it provides financial messaging services to designated Iranian financial institutions.

“Just as was done before, humanitarian transactions to non-designated entities will be allowed to use the SWIFT messaging system as they have done before,” Mnuchin said, “but banks must be very careful that these are not disguised transactions or they could be subject to certain sanctions.”

Friday’s announcement drew immediate condemnation from those who supported the nuclear deal.

“These sanctions are a slap in the face to the Iranian people who have been squeezed between the repression of their government and the pressure of international sanctions for decades,” Jamal Abdi, president of the National Iranian American Council, said in a statement. “Impoverishing ordinary Iranians will not hurt the regime or achieve any of America’s security interests, but it will set back the Iranian people’s aspirations for years to come.”

COMMENTARY

The National Interest (Washington, D.C.)

No Room for U.S. Concessions on Iran’s Civilian Nuclear Aims

By Jacob Nagel and Jonathan Schanzer

Nov. 7, 2018

Washington should return to its previous policy of preventing civilian advances.

The Trump administration, after reinstating sanctions on the Iranian regime Monday, now seeks to convey that more pressure is on the way. But the messaging by U.S. officials has been mixed, leaving some doubt as to where Washington’s Iran policy goes from here.

For example, it was unclear until only a few days ago whether Iran would be booted from SWIFT, the Belgium-based financial messaging service that is crucial to keeping Iran’s central bank connected to the international banking system. A majority of Iranian banks are now slated to be disconnected from the ubiquitous messaging system, leaving only a few to remain connected for humanitarian transactions.

However, the connected banks can be easily exploited, necessitating strict oversight. And it’s still unclear how Washington plans to monitor their activity.

The administration sought to convey a much tougher line on Monday when the U.S. Department of the Treasury unleashed a massive sanctions tranche of seven hundred re-designated entities, plus another three hundred new ones. But even then, there appeared to be some leniency for the Iranian regime. Specifically, the administration granted waivers for civilian nuclear cooperation on three separate Iranian projects—in the now infamous facilities of Arak, Fordow and Bushehr.

The desire to help Iran maintain access to advanced western nuclear technology and knowhow is curious. For one, if the goal is to apply maximum pressure on Iran, it should not be limited to oil and financial sanctions, even if they are the most important components of a financial pressure campaign. If the goal is to isolate Iran, nuclear knowhow should also be forbidden.

The decision is also odd because we now know what Iran seeks to do with its civilian nuclear program, thanks to vast amounts of documents that the Mossad lifted from a secret nuclear warehouse in Tehran earlier this year. Those files made clear that Iran seeks to apply its civilian nuclear knowledge to its illicit pursuit of nuclear weapons.

Finally, there is a straightforward legalistic argument against American civilian nuclear cooperation with Iran, namely that once America walked away from the nuclear deal, it was no longer feasible to maintain. With the re-imposition of sanctions, dozens of nuclear personnel from Iran’s Atomic Energy Agency, Ministry of Defense and Islamic Revolutionary Guard Corps have already been added back to the U.S. Treasury Department’s blacklist.

The Europeans, in their tenacious bid to save what is left of the nuclear deal, argue that providing Iran overt access to nuclear technology under Western supervision is better than Iran secretly making advances without oversight. This is a line also repeated by think tanks in Washington. But this is not a binary equation. Iran would almost certainly pursue both. And if the goal is to prevent Iran from accruing nuclear knowledge, for fear that it may make a dash for the bomb at a later date, providing assistance seems unwise, to put it mildly.
For now, it appears the Trump administration has adopted the European view—perhaps as a concession for effectively forcing the Europeans to rejoin the American sanctions regime. But instead of cementing this policy, Washington should take the opportunity to impose a more restrictive policy. This should include more rigorous oversight and real accountability for seller countries of dual-use goods to ensure end user verification. And even if some compromise is reached, there should be no procurement whatsoever for Arak, Fordow or Bushehr.

To stymie Iran’s continued quest for nuclear weapons, the red lines must be clear: no natural and enriched uranium, no conversion and enrichment facilities, no nuclear reactors with weapons-grade plutonium production potential, no reprocessing capabilities, no weaponization system work and no missiles capable of carrying nuclear warheads.

But we must be equally clear about Iran’s quest for nuclear expertise. Washington should return to its previous policy of preventing civilian advances. This should include preventing universities and research institutions, both in the United States and around the world, from teaching, training or employing Iranian students and researchers in the fields of nuclear physics or related fields. The United States should further request that the International Atomic Energy Agency (IAEA) terminate investments and technical assistance for Iranian nuclear projects and end IAEA-hosted seminars and conferences in Iran, as well. Indeed, until Iranian behavior changes, the goal should be to prevent Iran from growing a new generation of nuclear scientists and missile engineers.

Until Iran can comply with Secretary of State Mike Pompeo’s twelve points—eschewing terrorism, political violence, human rights violations and other malign activity—maximum pressure is required across the board. There is no room for concessions—especially not nuclear ones.

https://nationalinterest.org/feature/no-room-us-concessions-iran%E2%80%99s-civilian-nuclear-aims-35432

Defense One (Washington, D.C.)

China Is No Reason to Abandon the INF

By Zack Brown

Nov. 6, 2018

 Putting U.S. ground-launched intermediate-range missiles in the Pacific would be tactically ineffective and strategically destabilizing.

A green speck within the vast blue of the western Pacific, the tiny island of Guam has long played an outsized role in the geopolitics of the world’s largest ocean. But if the Intermediate-Range Nuclear Forces, or INF, Treaty is tossed aside, Guam’s strategic importance may soon be on the rise—for all the wrong reasons.

Donald Trump’s announcement that he planned to “terminate the agreement” has left supporters of the decades-old treaty reeling. But others say the move is long overdue, and not just because of Moscow. “China poses a much larger and more sophisticated long-term military threat than Russia,” says Elbridge Colby, director of the defense program at the Center for a New American Security. “Washington would benefit from having the ability to deploy survivable land-based ballistic and cruise missile systems.”

Colby and others cite China’s growing missile arsenal, most of which is conventional and falls within ranges covered by the INF Treaty. “The fact that Beijing has such missiles,” writes Marc
Thiessen, a fellow at the American Enterprise Institute, “puts the United States at a strategic disadvantage in any conflict with Beijing...our only possible response would be to strike China with intercontinental ballistic missiles—an unacceptable escalation.”

Their solution: toss out the INF Treaty, develop an American arsenal of ground-launched intermediate-range missiles, and deploy them to allied territory in the western Pacific. This highly visible and survivable strike option would deter China, they argue, or provide the needed flexibility to hit targets in mainland China should conflict erupt (most likely over Taiwan).

Except this logic is wrong, and pursuing it would produce greater strategic instability in exchange for little to no benefit to the United States.

First, virtually no allies would be willing to host new American ground-based missiles aimed at China. Japan has come out in defense of the INF Treaty, calling a U.S. withdrawal “undesirable,” while Australian officials have indicated they have low thresholds for U.S. actions they perceive as needlessly provoking Beijing. Moreover, neither country is likely to view Taiwan as a core security interest in the same way as Washington. The same goes for the Philippines and South Korea, especially during the latter’s delicate diplomatic dance with North Korea, which would certainly view any missile deployment with alarm.

This leaves the tiny island of Guam—nearly 2,000 miles from China—as the only realistic base for ground-launched missiles, an option which poses severe challenges for both survivability and military utility. A 2012 RAND report estimated that in order to target the 40 Chinese airbases likely to be involved in a conflict over Taiwan, the U.S. would need about 600 intermediate-range conventional missiles. It’s hard to imagine hinging survivability on simple dispersal on a land mass one-fifth the size of Rhode Island, yet hardened silos for such a vast force could cost tens of billions of dollars.

Either way, Guam is already a high-value target for Beijing, and any new missile deployment would only raise the incentives strike the island quickly in a fight.

Moreover, it’s not completely obvious what this new force would do. Though missiles stationed on Guam could easily hit stationary objects like military bases, the island’s distance from the mainland would hamper targeting of mobile assets, such as the transporter erector launchers (TELs) that carry the bulk of China’s missile forces. These targets would quickly scatter in wartime, forcing any intermediate-range missile to make constant adjustments on its long journey from Guam—no easy task given that Beijing would likely try to blind American satellites.

Fortunately, a practical solution exists, one that doesn’t involve stationing INF Treaty-busting missiles on Guam. It’s what we’re doing now. Speaking before Congress last year, Gen. Paul Selva, Vice Chairman of the Joint Chiefs of Staff, testified that the argument that the INF Treaty unfairly restricted U.S. capabilities was “a bridge too far,” and that current “deployment of missile systems on aircraft and ships would allow us to hold those [Chinese] targets at risk.

Simply put, there’s no need for ground-based, intermediate-range missiles when we have those aplenty in the air and at sea, all of which would be able to get in closer to China before launching. Yes, ships and aircraft could be sunk or shot down, but you’d have to find them first, and it’s certainly easier to hide a ship in the sheer vastness of the Pacific than it is to hide a missile on the limited confines of Guam.

Whether or not the Trump administration realizes this remains to be seen. But unless they do, the island of Guam may soon turn from green to gray.

Atlantic Council (Washington, D.C.)

**Nukes in Europe: Facts, Not Hysteria**

By Franklin C. Miller

Nov. 1, 2018

US President Donald J. Trump’s October 20 announcement that the United States would withdraw from the Intermediate-Range Nuclear Forces (INF) Treaty as a result of Russian cheating set off a wide variety of anxious messages from allies as well as some gratuitous threats from Russian President Vladimir Putin.

The European Union (EU) said in response: “The United States and the Russian Federation need to remain engaged in constructive dialogue to preserve the INF Treaty and ensure its full and verifiable implementation which is crucial for Europe’s and global security. ... While we expect the Russian Federation to address serious concerns regarding its compliance with the INF Treaty in a substantial and transparent way, we also expect the United States to consider the consequences of its possible withdrawal from the INF on its own security, on the security of its allies and of the whole world. ... The world doesn’t need a new arms race that would benefit no one and on the contrary would bring even more instability.”

Germany’s foreign minister, Heiko Maas, calling the US decision “regrettable,” stated that the INF Treaty was “an important pillar of our European security architecture” and that the US move to withdraw “raises difficult questions for us and Europe.”

Germany, Maas said, would be urging Washington to “consider the possible consequences” of its decision. (In fairness, he also did note that Germany has repeatedly urged Moscow to “clear up the serious allegations of breaching the INF Treaty, which Russia has so far not done.”)

For his part, Putin stated that any European countries hosting US missiles would be at risk of retaliatory Russian strikes. Russia’s response would be “very quick and effective,” he threatened. “If the United States does end up pulling out of the INF Treaty, then the most important question is what will they do with the missiles that will reappear again? ... If they are supplied to Europe, then of course we will have to respond in kind, and the European countries that agree to this—if things come to this—should understand that they will be subjecting their own territory to the threat of a possible retaliatory strike,” he said.

All of this was predictable. And it encapsulates what’s wrong with the whole INF—and indeed nuclear weapons—debate in Europe.

Calls for the United States to continue to engage in a constructive dialogue with Russia on this issue bring to mind Albert Einstein’s definition of insanity: “doing the same thing over and over again, but expecting different results.”

The United States has been raising Russian violations of the INF Treaty with Moscow since 2014. During that period, Russia completed design of the treaty-busting SSC8 cruise missile, and moved to produce, test, and deploy the system. Multiple SSC8 battalions are in the field and are operational—equipped with nuclear weapons. Continued entreaties to the Kremlin “to make Europe safer” will result only in additional Russian deployments, while Moscow continues to reject any idea that it has violated, let alone eviscerated, the treaty.
The Kremlin’s behavior mirrors almost exactly the situation of the late 1970s and early 1980s when NATO appealed to the USSR to halt deployments of the Soviet SS-20 IRBM only to have Moscow ramp up placing SS-20s in the field. The halt in SS-20 deployments and their eventual elimination thanks to the INF Treaty only occurred as a direct result of NATO’s counter-deployment of Pershing II and ground-launched cruise missiles.

How can the INF Treaty be considered “an important pillar of our European security architecture” when Russia is exploiting it to place illegal systems in the field while NATO continues to believe itself bound by the treaty’s strictures?

To believe the INF Treaty remains in force is risible: Russia’s continued deployment of SSC8s has rendered it null and void. It only remains for the West to acknowledge this, which the Trump administration has now done.

But Russia’s violation of the INF Treaty is only one element of Russia’s growing nuclear threat to NATO Europe, a threat which was supposed to be reduced dramatically by the Presidential Nuclear Initiatives agreed to in 1991 by US President George H.W. Bush and Soviet President Mikhail Gorbachev, and in 1992 by Bush and Russian President Boris Yeltsin. Under those initiatives, which were politically (although not legally) binding, NATO and the USSR/Russia pledged to slash their arsenals of short-range nuclear weapons. The United States/NATO cut its arsenal by 90 percent; Russia did not. Of particular importance, both sides agreed to eliminate all of their ground-launched short-range nuclear weapons. The United States accomplished this goal promptly: existing nuclear artillery shells and short-range missile warheads were withdrawn to the United States and destroyed, while new programs were halted.

Although the Russian government claims it has adhered to the Presidential Nuclear Initiatives, it has become evident that the Russian army still retains nuclear artillery weapons and has deployed for many years a relatively new short-range ballistic missile, the SS-26, which has nuclear capability. As a result, Russia’s deployed stockpile of short-range nuclear weapons is now ten times larger than NATO’s.

Ironically, this calls to mind the classic title of a Cold War-era Soviet propaganda document: “Whence the Threat to Peace?”

Russian cheating on its nuclear arms control commitments must be confronted, especially by those who are threatened by the Russian weapons. There is no excuse for the European members of NATO to seek “moral equivalence” by casting aspersions on both the United States and Russia for increasing the nuclear threat to NATO; Russia alone bears that burden. Our allies might take to heart the message President John F. Kennedy sent to British philosopher Bertrand Russell when the latter accused the United States of creating a crisis over Nikita Khruščev’s deployment of nuclear missiles in Cuba: “I think your attention might well be directed to the burglars rather than to those who caught the burglars.”

Russia’s malevolent behavior toward NATO over the past ten years has been well-documented. Putin and his senior officials have long indulged in inflammatory rhetoric unheard since the era of Khruščev, statements in which Russia threatens to conduct nuclear strikes against (or to put on Russia’s nuclear target list) Poland, the Czech Republic, and Denmark; Russian generals have identified the United States and NATO “as our primary enemy.” Russian bombers and fighters routinely penetrate allied air defense zones and Russian aircraft and naval ships routinely maneuver in an extremely unsafe manner in close proximity to NATO assets. Russian military exercises showcase assaults against NATO, to include nuclear strikes. All of this is intended to intimidate and blackmail NATO governments and publics.
Putin’s latest intimation that he would add NATO countries to his target list belies the reality that Russian nuclear forces have been targeting NATO for decades. The existing short-range forces do so today, as do Russian naval and air tactical nuclear systems. The growing number of newly deployed SSC8s do so as well.

Further, to suggest that should NATO decide to respond to the SSC8 deployments, Russia would have to deploy a countervailing capability is to reach a new level of hypocrisy, even for Putin.

What, then, should NATO nations (and even the non-NATO members of the EU) be doing about all of this?

First, they should recognize that two US administrations have been negotiating with Moscow about the SSC8’s violation of the INF Treaty with the only tangible result being the system’s operational deployment. The blame for the INF Treaty’s demise rests squarely and solely with the Kremlin.

Second, they should remember that the United States’ extension of its nuclear umbrella over NATO—thereby putting the US homeland directly at risk—is a selfless act designed to protect our allies from Russian coercion, blackmail, or attack. A quick look at the situation in Abkhazia, South Ossetia, the Crimea, the Donbass, and Transnistria provides evidence of what happens when Russia confronts weaker nations that lack protection.

Third, working with the United States, the rest of NATO should agree upon a counter to the SSC8 which may not need to be nuclear-capable, and which almost certainly would not be based in Europe. The history of the past many decades makes clear that the Kremlin, whether the ruler is Soviet, post-Soviet or the current mixture of the two, will only agree to negotiate and abide by arms control/reduction agreements if there is a Western system whose deployment Moscow seeks to block or constrain.

Finally, the United States and NATO should be ever mindful of Russian threats and activities which have occurred for over a decade and which continue today. Russia has not been a good neighbor. Europeans’ concern and ire should be directed at the former KGB official who now directs all aspects of Moscow’s malign behavior toward the West, rather than at the United States.


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ABOUT THE USAF CSDS

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

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

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

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

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