

# National Defense Strategy

January 2018

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## INTRODUCTION

The Department of Defense's enduring mission is to provide combat-credible military forces needed to deter war and protect the security of our nation. Should deterrence fail, the Joint Force is prepared to win. Reinforcing America's traditional tools of diplomacy, the Department provides military options to ensure the President and our diplomats negotiate from a position of strength.

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## STRATEGIC APPROACH

*Modernize key capabilities.* We cannot expect success fighting tomorrow's conflicts with yesterday's weapons or equipment. To address the scope and pace of our competitors' and adversaries' ambitions and capabilities, we must invest in modernization of key capabilities through sustained, predictable budgets. Our backlog of deferred readiness, procurement, and modernization requirements has grown in the last decade and a half and can no longer be ignored. We will make targeted, disciplined increases in personnel and platforms to meet key capability and capacity needs. The *2018 National Defense Strategy* underpins our planned fiscal year 2019-2023 budgets, accelerating our modernization programs and devoting additional resources in a sustained effort to solidify our competitive advantage.

- *Nuclear forces.* The Department will modernize the nuclear triad—including nuclear command, control, and communications, and supporting infrastructure. Modernization of the nuclear force includes developing options to counter competitors' coercive strategies, predicated on the threatened use of nuclear or strategic non-nuclear attacks.
- *Space and cyberspace as warfighting domains.* The Department will prioritize investments in resilience, reconstitution, and operations to assure our space capabilities. We will also invest in cyber defense, resilience, and the continued integration of cyber capabilities into the full spectrum of military operations.
- *Command, control, communications, computers and intelligence, surveillance, and reconnaissance (C4ISR).* Investments will prioritize developing resilient, survivable, federated networks and information ecosystems from the tactical level up to strategic planning. Investments will also prioritize capabilities to gain and exploit information, deny competitors those same advantages, and enable us to provide attribution while defending against and holding accountable state or non-state actors during cyberattacks.
- *Missile defense.* Investments will focus on layered missile defenses and disruptive capabilities for both theater missile threats and North Korean ballistic missile threats.
- *Joint lethality in contested environments.* The Joint Force must be able to strike diverse targets inside adversary air and missile defense networks to destroy mobile power-projection platforms. This will include capabilities to enhance close combat lethality in complex terrain.
- *Forward force maneuver and posture resilience.* Investments will prioritize ground, air, sea, and space forces that can deploy, survive, operate, maneuver, and regenerate in all domains while under attack. Transitioning from large, centralized, unhardened infrastructure to smaller, dispersed, resilient, adaptive basing that include active and passive defenses will also be prioritized.

## Nuclear Posture Review

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### RUSSIA

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Russia possesses significant advantages in its nuclear weapons production capacity and in non-strategic nuclear forces over the U.S. and allies. It is also building a large, diverse, and modern set of non-strategic systems that are dual-capable (may be armed with nuclear or conventional weapons). These theater- and tactical-range systems are not accountable under the New START Treaty and Russia's non-strategic nuclear weapons modernization is increasing the total number of such weapons in its arsenal, while significantly improving its delivery capabilities. This includes the production, possession, and flight testing of a ground-launched cruise missile in violation of the INF Treaty. Moscow believes these systems may provide useful options for escalation advantage. Finally, despite Moscow's frequent criticism of U.S. missile defense, Russia is also modernizing its long-standing nuclear-armed ballistic missile defense system and designing a new ballistic missile defense interceptor.



Russian President Vladimir Putin and Defense Minister General Sergey Shoigu in the National Defense Council Center. (Photo by Russian Ministry of Defense)

## **RESPONDING TO RUSSIA'S INF TREATY VIOLATION**

In July 2014, the United States declared Russia to be in violation of the INF Treaty for the development of the SSC-8 ground-launched cruise missile system. The United States has since pressed Russia to return to compliance with the Treaty.

The North Atlantic Council has emphasized that, “full compliance with the INF Treaty is essential,” and “identified a Russian missile system that raises serious concerns; NATO urges Russia to address these concerns in a substantial and transparent way.” – December 15th, 2017

### **RESPONSE MEASURES:**

Diplomatic Measures – The United States continues to seek a diplomatic resolution through all viable channels, including the INF's Special Verification Commission. Allies have emphasized that a situation whereby the United States and other parties are abiding by the Treaty, and Russia were not, would be a grave and urgent concern.

Economic Measures – The United States has sanctioned Russian companies involved in the development and manufacture of Russia's prohibited cruise missile system.

Military Measures – The United States is commencing INF Treaty-compliant research and development by reviewing military concepts and options for conventional, ground-launched, intermediate-range missile systems.



## Selected Readings from Trump Administration Documents

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Additionally, in the near-term, the United States will modify a small number of existing SLBM warheads to provide a low-yield option, and in the longer term, pursue a modern nuclear-armed sea-launched cruise missile (SLCM). Unlike DCA, a low-yield SLBM warhead and SLCM will not require or rely on host nation support to provide deterrent effect. They will provide additional diversity in platforms, range, and survivability, and a valuable hedge against future nuclear “break out” scenarios.

DoD and NNSA will develop for deployment a low-yield SLBM warhead to ensure a prompt response option that is able to penetrate adversary defenses. This is a comparatively low-cost and near-term modification to an existing capability that will help counter any mistaken perception of an exploitable “gap” in U.S. regional deterrence capabilities. Doing so will not increase the number of deployed U.S. ballistic missile warheads, as the low-yield weapons will replace higher-yield weapons currently deployed.

In addition to this near-term step, for the longer term the United States will pursue a nuclear-armed SLCM, leveraging existing technologies to help ensure its cost effectiveness. SLCM will provide a needed non-strategic regional presence, an assured response capability, and an INF-Treaty compliant response to Russia’s continuing Treaty violation. 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.

Indeed, U.S. pursuit of a SLCM may provide the necessary incentive for Russia to negotiate seriously a reduction of its non-strategic nuclear weapons, just as the prior Western deployment of intermediate-range nuclear forces in Europe led to the 1987 INF Treaty. As then Secretary of State George P. Shultz stated, “If the West did not deploy Pershing II and cruise missiles, there would be no incentive for the Soviets to negotiate seriously for nuclear weapons reductions.”

In the 2010 NPR, the United States announced the retirement of its previous nuclear-armed SLCM, which for decades had contributed to deterrence and the assurance of allies, particularly in Asia. Given the increasing need for flexible and low-yield options to strengthen deterrence and assurance, we will immediately begin efforts to restore this capability by initiating a capabilities study leading to an Analysis of Alternatives (AoA) for the rapid development of a modern SLCM. It will strengthen the effectiveness of the sea-based nuclear deterrence force and is complementary to LRSO, but cannot substitute for it because LRSO is required to sustain an effective air leg of the triad.

These supplements to the planned nuclear force replacement program--a modified SLBM warhead and modern SLCM--are prudent options for enhancing the flexibility and diversity of U.S. nuclear capabilities to help address emerging deterrence requirements in the near term and beyond. They are compliant with all treaties and agreements, and together, they will: provide a more diverse set of characteristics greatly enhancing our ability to tailor deterrence and assurance; expand the range of credible U.S. options for responding to nuclear or non-nuclear strategic attack; and, enhance deterrence by signaling to potential adversaries that their concepts of coercive, limited nuclear escalation offer no exploitable advantage.

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## NUCLEAR COMMAND, CONTROL, AND COMMUNICATIONS (NC3) MODERNIZATION

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*"We have to modernize the entire architecture. And so, as you see the modernization plans coming in; make sure, number one, it's the 21st century information architecture."*

*Commander, United States Strategic Command, General John Hyten, 4 April 2017*

The United States must have an NC3 system that ensures command and control of U.S. nuclear forces at all times, even under the enormous stress of a nuclear attack. NC3 capabilities must assure the integrity of transmitted information and possess the resiliency and survivability necessary to reliably overcome the effects of adversary nuclear attack. The NC3 architecture is essential for deterrence and enables a response if deterrence fails.

During peacetime and crisis, the NC3 system performs five crucial functions: detection, warning, and attack characterization; nuclear planning; decision-making conferencing; receiving Presidential orders; and enabling the management and direction of forces.

Today's NC3 system is a legacy of the Cold War, last comprehensively updated almost three decades ago. It includes interconnected elements composed of warning satellites and radars; communications satellites, aircraft, and ground stations; fixed and mobile command posts; and the control centers for nuclear systems.



The Advanced Extremely High Frequency, or AEHF, system provides survivable, global, secure, protected and jam-resistant communications for high-priority military ground, sea and air assets. (U.S. Air Force photo)

- › Warning systems include fixed, terrestrial phased array warning radars; the Defense Support Program (DSP) system and its replacement, the Space Based Infrared System (SBIRS); and the U.S. Nuclear Detonation Detection System (USNDS).
- › Communications systems include the Military Strategic and Tactical Relay (MILSTAR) satellites and its replacement, the Advanced Extremely High Frequency (AEHF) satellites; a wide variety of ground-based transmission systems across the radio frequency spectrum; and Take Charge and Move Out (TACAMO) relay aircraft.
- › The fixed command posts include the National Military Command Center (NMCC) and the U.S. Strategic Command Global Operations Center. Fixed command posts

## Selected Readings from Trump Administration Documents

also include linkages to U.S. forward-deployed forces in USEUCOM and elsewhere. Mobile command posts include the E4B National Airborne Operations Center (NAOC), the E6B Airborne Command Post (ABNCP), and ground mobile systems.

- › Control centers for nuclear systems are in ICBM Launch Control Centers, on SSBNs, and aboard bomber aircraft.

While once state-of-the-art, the NC3 system is now subject to challenges from both aging system components and new, growing 21st century threats. Of particular concern are expanding threats in space and cyber space, adversary strategies of limited nuclear escalation, and the broad diffusion within DoD of authority and responsibility for governance of the NC3 system, a function which, by its nature, must be integrated.

Expanding Threats. Space is no longer a sanctuary and orbital space is increasingly congested, competitive, and contested. A number of countries, particularly China and Russia, have developed the means to disrupt, disable, and destroy U.S. assets in space. Because space is no longer an uncontested domain, U.S. NC3 space systems need to be more survivable, defensible, and provide resilient capabilities.

Nuclear Environment. Because potential adversaries are emphasizing the employment of limited nuclear options, our NC3 system must be resilient in the context of adversary limited nuclear strikes. The U.S. leadership, including Combatant Commanders, must be able to communicate and share information across networked command and control systems, and to integrate nuclear and non-nuclear military planning and operations in the context of adversary nuclear employment.

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Effective nuclear non-proliferation and arms control measures can support U.S., allied, and partner security by controlling the spread of nuclear materials and technology; placing limits on the production, stockpiling, and deployment of nuclear weapons; decreasing misperception and miscalculation; and avoiding destabilizing nuclear arms competition. Consequently, the United States will continue its efforts to: 1) minimize the number of nuclear-armed states, including by maintaining credible U.S. extended nuclear deterrence and assurance; 2) deny terrorist organizations access to nuclear weapons, materials, and expertise; 3) strictly control weapons-usable material, related technology, and expertise; and 4) seek arms control agreements that enhance security, and are verifiable and enforceable.

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Despite these challenges, the institutions that support the NPT, such as the International Atomic Energy Agency, help identify violations, provide evidentiary support for the imposition of multilateral sanctions, and, as is the case with Iran, establish international monitoring and verification capabilities. Perhaps most importantly, strengthening these institutions and the international safeguards system supports verifiable, durable progress on non-proliferation and potentially further negotiations on nuclear reductions if the security environment permits.

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**ARMS CONTROL**

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Arms control can contribute to U.S., allied, and partner security by helping to manage strategic competition among states. By codifying mutually agreed-upon nuclear postures in a verifiable and enforceable manner, arms control can help establish a useful degree of cooperation and confidence among states. It can foster transparency, understanding, and predictability in adversary relations, thereby reducing the risk of misunderstanding and miscalculation. In addition to formal agreements, regular dialogues on doctrine and forces can also contribute to mutual understanding and reduce the risk of miscalculation.

The United States remains willing to engage in a prudent arms control agenda. We are prepared to consider arms control opportunities that return parties to predictability and transparency, and remain receptive to future arms control negotiations if conditions permit and the potential outcome improves the security of the United States and its allies and partners.