

Nuclear Weapon Modernization

Nuclear deterrence is the #1 priority mission of the Department of Defense.

The nuclear deterrent underwrites every U.S. military operation on the globe—it is the backstop and foundation of our national defense and the defense of our allies.

In the 21st century, the ability to maintain a sustainable, reliable and responsive nuclear deterrent is key to our national security.

The U.S. nuclear triad remains capable, flexible, resilient and ready, but it must be modernized to maintain a credible deterrent against current and emerging threats. Our nuclear capabilities must be flexible to tailor deterrence strategies across a range of potential adversaries and threat. The United States will maintain the range of nuclear capabilities needed to ensure aggression will fail against the United States, its allies or its partners and carry with it the risk of intolerable consequences for potential adversaries, now and in the future.

Modernization of nuclear weapons, delivery platforms, and command-and-control communications is ongoing and will remain a small fraction of the DoD budget, about 6 percent of total defense spending, for about 25 years, according to the Congressional Budget Office. This level of spending compares favorably to 10.6 percent of the DoD budget in the 1980s (almost 3.7 percent of the overall federal budget) and 17.1 percent of DoD's budget in the early 1960s.

The way in which we acquire weapon systems, by managing cost, schedule and performance, continues to evolve in order to deliver world-class capabilities and ensure our warfighters' dominance in air and space.

"...we'll make sure that our nuclear deterrent is stronger than ever before—modern, robust, flexible, resilient and ready to confront any and all enemies of peace with rapid, effective and overwhelming response."

Michael Pence, Vice President

Strategic Nuclear Triad

1. Intercontinental Ballistic Missiles

- Most responsive leg; on alert 24/7
- Adversary must use multiple warheads to target 495 locations

2. Air-Delivered Weapons (by bombers and fighters)

- Most flexible leg; aircraft can be recalled
- Used for demonstration of resolve/force
- Only dual-capable leg (nuclear and conventional)

3. Submarine-Launched Ballistic Missiles

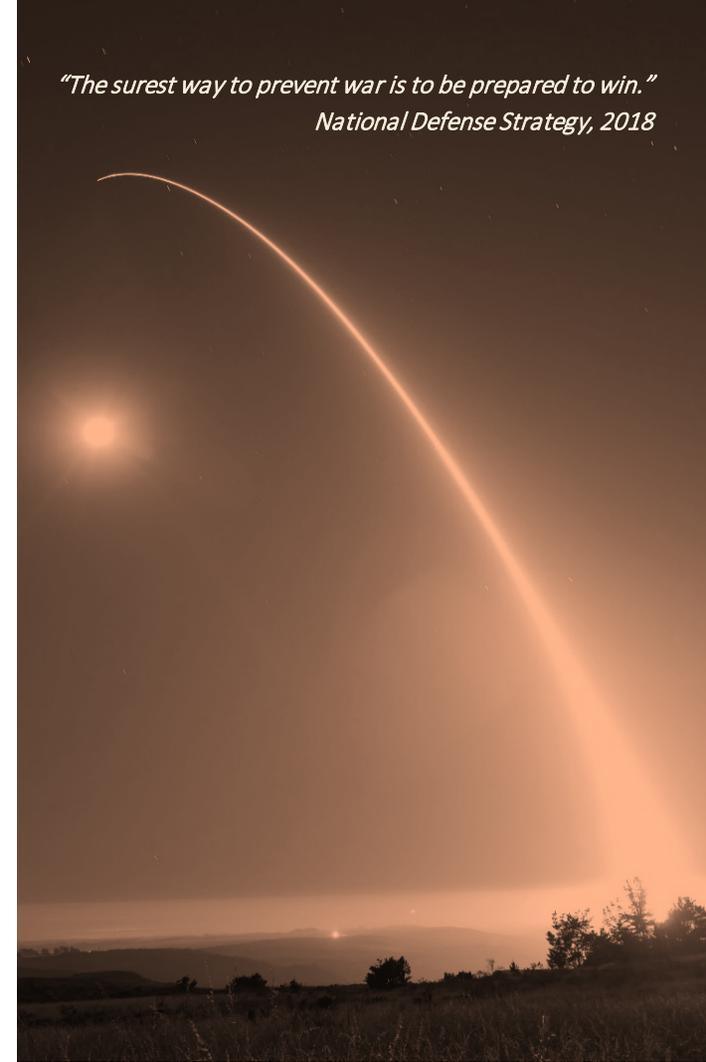
- Most survivable leg; on alert 24/7
- Stealthiest and hardest for adversary to target

Budget Challenges

Adversaries are modernizing and innovating faster than we are, putting at risk America's technological advantage in air and space. Sustained predictable and flexible budgets are critical to our readiness recovery and our ability to build a capable and lethal force for the future.

Continuing resolutions also pose a significant challenge to the planning and operations of the Air Force. Under these restrictions, AFNWC would operate with less than the budget it needs to deliver the nuclear capabilities warfighters use every day to deter and assure, and we are not allowed to start new programs or increase rates of weapon production while a continuing resolution is in effect.

*"The surest way to prevent war is to be prepared to win."
National Defense Strategy, 2018*



Nuclear Modernization: Key to Strategic Deterrence

Air Force Nuclear Weapons Center



MORE INFO

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NEVER DOUBTED ★ ALWAYS FEARED

Nuclear Deterrence Myths

Myth #1: The U.S. strategic triad is no longer required to provide deterrence.

The triad's critics say the United States no longer needs a large arsenal to deter current nuclear threats. However, the 2018 Nuclear Posture Review underscored that Russia is expanding and modernizing its nuclear forces, violating arms control treaties, and engaging in aggressive behavior, while China and North Korea are pursuing new nuclear capabilities and challenging U.S. interests in the Pacific. Globally, nuclear terrorism also remains a real danger.

Each leg of the triad is essential, complementary, and critical to ensuring no adversary believes it can ever employ nuclear weapons for any reason, under any circumstances.

The bottom line is that taking away any one triad leg, or failing to modernize it, reduces the effectiveness of our nuclear deterrence. Therefore, the United States must maintain a flexible nuclear capability that deters adversaries who pose a threat to our nation's existence, regardless of their perceived willingness to launch a nuclear attack.

“Most U.S. nuclear weapons delivery systems have been extended far beyond their original service lives and cannot be sustained beyond the 2025 to 2035 timeframe.”

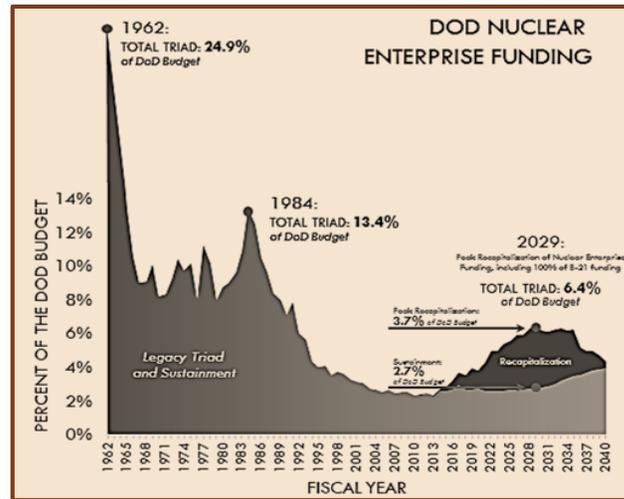
DoD/DOE Nuclear Weapons Council, 2019



Myth #2: We get more capability per dollar for conventional weapons.

The savings from cutting individual nuclear programs is minimal, mainly due to fixed costs, but a myth persists that those funds could support supposedly cheaper conventional weapon programs that “need it more.” In general, conventional forces cost more to maintain on an annual basis than nuclear assets, according to the National Institute for Public Policy.

Myth #3: Nuclear modernization is not affordable.



According to the DoD/DOE Nuclear Weapons Council, the projected DoD costs of sustaining and replacing our nuclear capabilities are moderate in historical terms and a small fraction of the DoD budget. Nuclear modernization will cost roughly 3.7% of the DoD budget at its highest point in the late 2020s and early 2030s.

During this timeframe, DoD projects it will spend less than 7% of its annual budget on operating, sustaining, and modernizing its nuclear forces. This is a modest percentage of our defense budget when measured against the catastrophic consequences of a major war or a nuclear war. **As former Secretary of Defense James Mattis said, “America can afford survival.”**

Myth #4: It's cheaper to extend the life of a current nuclear system than build a new one.

Extending the service life of our nuclear weapons, instead of modernizing with new versions, is not cost effective. The last major recapitalization of U.S. nuclear forces occurred in the 1980s. Maintaining our aging nuclear weapons systems remains critical but is becoming more expensive and less practical, as shown by our analysis and industry projections.

The triad remains capable, flexible, resilient and ready, but it must be modernized to maintain a credible deterrent against current and emerging threats. For example, the Minuteman III ICBM has been on alert over 45 years. The Ground Based Strategic Deterrent ICBM will ensure uninterrupted operational effectiveness and provide more efficient operations, maintenance and security for the triad. The Long Range Standoff Weapon will replace the aging Air Launched Cruise Missile to maintain an effective standoff capability for the triad's bomber leg.

“Our goal is to convince adversaries they have nothing to gain and everything to lose from the use of nuclear weapons.”

Nuclear Posture Review, 2018

