

Nuclear Weapon Modernization

Nuclear deterrence is the highest priority mission of the Department of Defense and remains a top priority for the nation.

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 and undergirds all National Defense Strategy priorities.

The U.S. strategic nuclear triad remains capable, flexible, resilient and ready, but it must be modernized to maintain a credible deterrent against current and emerging threats. As the President’s National Security Strategy states, “Our competitors and potential adversaries are investing heavily in new nuclear weapons. By the 2030s, the United States for the first time will need to deter two major nuclear powers, each of whom will field modern and diverse global and regional nuclear forces. To ensure our nuclear deterrent remains responsive to the threats we face, we are modernizing the nuclear triad, nuclear command, control, and communications (NC3), and our nuclear weapons infrastructure, as well as strengthening our extended deterrence commitments to our allies.”

The sustainment and modernization of nuclear weapons, delivery platforms and NC3 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 and 17.1 percent 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.

“To safeguard our status and our capabilities, we can’t settle on the status quo. We’re taking actions now. Our mission cannot fail.”

*Gen. Anthony Cotton
Commander, U.S. Strategic Command*

Strategic Nuclear Triad

1. Land-Based Force

- Most responsive leg.
- With the Air Force’s 400 ICBMs, no adversary can disarm the U.S. nuclear deterrent without attacking hundreds of targets simultaneously.

2. Air-Based Force

- Most visible and flexible leg.
- Sixty nuclear-capable bombers are a clear and visible signal of U.S. intent and resolve during a crisis.
- Forward-deployed dual capable aircraft strengthen the coherence of NATO’s nuclear and non-nuclear capabilities and mutually supportive concepts.

3. Sea-Based Force

- Most survivable leg.
- With 240 SLBMs, a portion of the Navy’s nuclear always on patrol, making them very difficult to find and track.

Bottom line is taking away any one triad leg, or failing to modernize it, reduces the effectiveness of our nuclear deterrence. 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.

The triad remains capable, flexible, resilient and ready, but it must be modernized to maintain a credible deterrent against current and emerging threats.

What we have today is the minimum we need. What we need tomorrow is a fully modernized nuclear triad and NC3.

“As long as nuclear weapons exist, the fundamental role of U.S. nuclear weapons is to deter nuclear attack on the United States, our allies, and partners.”

Nuclear Posture Review, 2022



Nuclear Modernization: Key to Strategic Deterrence



Air Force Nuclear Weapons Center

MORE INFO

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NEVER DOUBTED ★ ALWAYS FEARED

National Defense Strategy

The 2022 National Defense Strategy sets out the following defense priorities:

- Defending the homeland, paced to growing multidomain threats
- Deterring strategic attacks against the United States, allies and partners
- Deterring aggression, while being prepared to prevail in conflict when necessary
- Building a resilient Joint Force and defense ecosystem

In pursuit of these objectives, we will:

- Invest in the underlying sources and tools of American power and influence
- Build the strongest possible coalition of nations to enhance our collective influence to shape the global strategic environment and solve shared challenges
- Modernize and strengthen our military, so it is equipped for the era of strategic competition

“Integrated deterrence means all of us giving our all. It means that working together is an imperative, and not an option. It means that capabilities must be shared across lines as a matter of course, and not as an exception to the rule.”

Secretary of Defense Lloyd J. Austin III

AFNWC

The Air Force Nuclear Weapons Center is the nuclear-focused center within Air Force Materiel Command synchronizing all aspects of nuclear materiel management on behalf of the AFMC commander and in direct support of Air Force Global Strike Command.

- **Mission:** Deliver nuclear capabilities warfighters use every day to deter and assure.
- **Vision:** Ensuring our nation's most powerful weapon systems are never doubted, always feared.
- **Motto:** "Never Doubted, Always Feared"

Major Organizations

The **Air Delivered Capabilities Directorate** is responsible for delivering, sustaining and supporting air-delivered nuclear weapon systems for our warfighters to secure the future of our nation and our allies every day.

The **Minuteman III Systems Directorate** is responsible for inception-to-retirement integrated management of the Minuteman III intercontinental ballistic missile system, our nation's current backbone for nuclear deterrence.

The **Nuclear Command, Control and Communications Integration Directorate** is responsible for integrating the NC3 Weapon System (AN/USQ.225) across the Air Force and advises AFGSC on the NC3 Weapon System's



technical architecture while informing key decisions regarding investment and modernization.

The **Nuclear Technology and Integration Directorate** is responsible for providing intelligence support to AFNWC, analyzing the full spectrum of weapons effects to support acquisition programs and inform tactics and procedures, assessing current and future nuclear systems to identify and mitigate potential vulnerabilities, and managing the nuclear certification process.

The **Sentinel Systems Directorate** is responsible for the total life cycle of the future LGM-35A Sentinel weapon system, which will replace the LGM-30G Minuteman III. This includes modernizing or replacing flight systems, weapon system command-and-control, launch facilities, and other infrastructure that supports the weapon system.