

Alternatives to Intercontinental Ballistic Missiles (ICBMs)

Silo-based intercontinental ballistic missiles (ICBMs) were the pinnacle of Cold War weaponry, capable of delivering nuclear warheads to the other side of the world in minutes. The Soviet Union's 1957 launch of the first artificial satellite, *Sputnik I*, spurred a concerted national effort in the United States to acquire an ICBM force to deter Soviet surprise attack. The current generation of U.S. ICBMs, the Minuteman III, is quickly approaching the end of its service life. Congress is moving forward with a replacement system, the Ground Based Strategic Deterrent (GBSD) program. GBSD will replace 400 Minuteman III missiles in existing silos spread across Montana, North Dakota, Wyoming, Colorado, and Nebraska.

There are several reasons Congress should consider alternatives to reflexive, one-for-one replacement of Cold War ICBMs.

- First, advances in Russian technology rendered the silos into which GBSD will be deployed vulnerable decades ago, meaning GBSD will not be built to survive a large-scale Russian nuclear surprise attack. In the event of such an attack, the only sure way to protect U.S. ICBMs is to launch them before Russian warheads arrive.
- Second, accommodating this vulnerability of ICBMs means there are only minutes for the military to identify false alarms and for the U.S. president to decide whether to *use them or lose them*—a decision that could determine the fate of the world.
- Third, over the last several decades, the U.S. submarine launched ballistic missile (SLBM) force has grown more invulnerable through advances in stealth and range. This allows U.S. nuclear missile submarines to patrol over wider areas of the oceans and gives greater confidence that they could survive a surprise attack. As a result, ICBMs provide no unique military capability except as additional targets for Russian warheads.
- Finally, prospective U.S. adversaries have demonstrated advanced cyberwarfare and supply chain attack capabilities that may have important implications for nuclear deterrence stability. ICBMs are designed to address only one threat—a massive Russian nuclear first strike—and do nothing to mitigate a host of more likely scenarios.

Before committing to nearly \$100 billion in acquisition costs and more than \$260 billion in life cycle costs for GBSD, Congress should consider whether the United States needs either alternative ICBMs or alternatives to ICBMs. The bipartisan House Armed Services Committee *Future of Defense Task Force Report 2020* warns against automatic, one-for-one replacement of “costly and ineffective legacy platforms” ill-suited to future U.S. defense needs.¹ A careful *legacy platform* study of silo-based ICBMs would consider several alternatives to the prompt deployment of GBSD:

1. Eliminating silo-based ICBMs

Leading defense experts disagree about whether silo-based ICBMs provide any benefit to the United States. Former Secretary of Defense William Perry advocates retiring all ICBMs, writing the following with Ploughshares Foundation Policy Director Tom Collina: “ICBMs are, at best, extra insurance that we do not need; at worst, they are a nuclear catastrophe waiting to happen.”² GBSD should be considered on the basis of how far into the future ICBMs will deliver defense benefit, rather than the age of the ICBMs in the ground now.

2. Lower numbers of silo-based ICBMs

Providing targets to complicate Russian nuclear surprise attack planning may not require 400 operational ICBMs. If the number of Minuteman III missiles on alert were to fall to 50%, the challenge to Russian nuclear surprise attack planners would remain the same because the Russians could not be sure which of 400 silos house 200 (or fewer) operational missiles. What is the right price for American taxpayers to pay to ensure that a hypothetical Russian nuclear surprise attack destroys an operational missile for every silo it strikes?

3. Negotiation of verified arms reductions with Russia to reduce the need for ICBMs

Nuclear deterrence is about avoiding nuclear war. There is no *winning* a war for which plans explicitly include killing tens of millions of people, collapsing multiple governments, and endangering human civilization. Both nuclear deterrence and nuclear strategy are about manipulating the shared risk of nuclear war, which the last great deterrence theorist, Thomas Schelling, demonstrated can be pursued just as effectively by verified agreed limits on nuclear weapons as by building more nuclear weapons.

4. Life extension of the Minuteman III system

There appears to be disagreement within the Defense Department about the feasibility and cost of extending the service life of the Minuteman III. Without clarity on what will be upgraded and how long the enhancements should last, it is impossible to determine whether life extension is a realistic and cost-effective option. For example, renovating the missiles without addressing longstanding problems in aging launch control centers would have little value.

Likewise, buying all new missiles will not solve the problems of water damage and deferred maintenance in support facilities. Congress should satisfy itself that the assumptions underlying a \$260 billion decision to replace the entire ICBM leg of the nuclear triad are justified.

The Minuteman III system is antiquated, but that doesn't mean taxpayers should automatically spend billions to replace it. Times and technologies change. The Moulton-Banks Task Force on the Future of Defense called on the Government Accountability Office to study legacy platforms within the Department of Defense and determine their relevance and resiliency to emerging threats over the next 50 years. The Minuteman III is such a legacy platform, and Congress should insist this study be completed before investing any more taxpayer dollars in GBSB.

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¹ United States, Congress, House Armed Services Committee. *Future of Defense Task Force Report 2020*. September 23, 2020, page 8.

² William J. Perry and Tom Z. Collina. *The Button: The New Arms Race and Presidential Power from Truman to Trump*. BenBella Books, 2020. p. 211.