

# **The dangers of ICBM Launch on Warning**

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ACA/Physicists Coalition Webinar:

“The Sentinel ICBM program: Risks, Costs, and Alternatives

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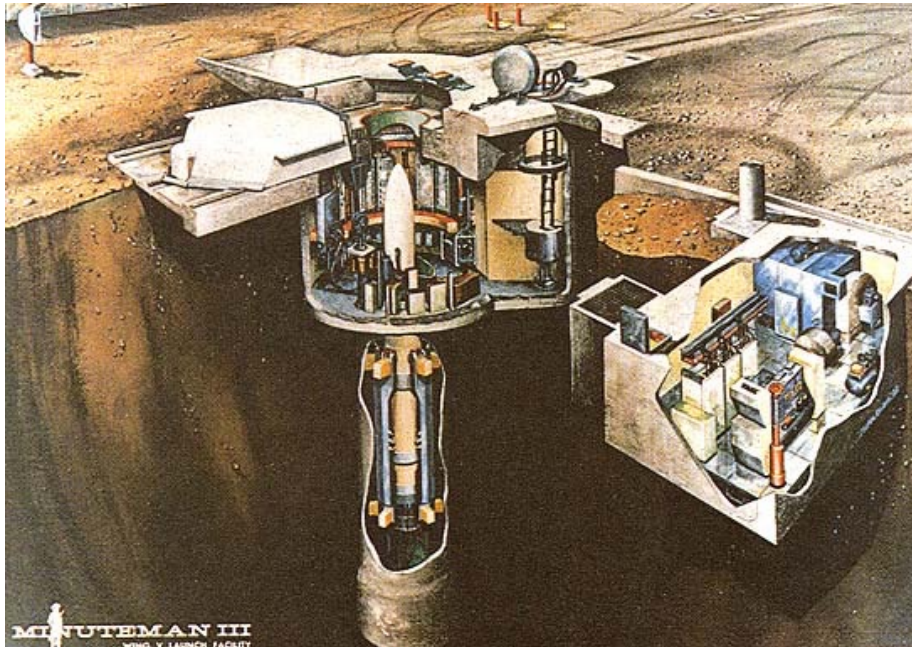
## **Outline**

- Launch-on-warning posture of silo-based ICBMs increases risk of accidental nuclear war
- Multiple-warhead silo-based ICBMs would make things worse
- Submarine-based ballistic missiles at sea backed up by bombers carrying air-launched cruise missiles would be a more than adequate deterrent

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**Silo-based Intercontinental Ballistic Missiles (ICBMs) are fixed, visible targets for Russian ICBMs. Strategic Command therefore insists on keeping them in a launch-on-warning posture.**



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**Timeline for launch on warning for an attack on US ICBMs by 10-warhead Russian SS-18 ICBMs (8500-km flight)**



**Timeline for launch-on-warning\***

**1 minute after launch:** *Russian ICBM detected by US early-warning satellite*

**4 minutes:** US early warning teams report assessment

**6 minutes:** President contacted

**10 minutes:** *President briefed on situation*

**13 minutes:** *Early-warning radar detects warheads, president pressed to launch*

**17 min:** *President issues launch order (or doesn't)*

**19 minutes:** Launch order transmitted to launch crews

**21 minutes:** Crews authenticate order

**22-27 minutes:** US ICBMs launch

**30 minutes:** Russian warheads (if real) arrive.

**Presidential Reactions:\*** *Reagan wanted to do away with ballistic missiles*  
*George W. Bush complained he would not have time "to get off the crapper"*  
*Barak Obama promised he would end launch on warning.*

But, despite many past false warnings, Strategic Command insists on keeping its "launch under attack option" and would press the President to execute it if an attack was judged real.

\* Bruce Blair, <https://thebulletin.org/premium/2020-01/loose-cannons-the-president-and-us-nuclear-posture/>, 1 Jan. 2020

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## General Butler's warning about Launch on Warning

(DOD does not admit to the possibility of false warning & insists on: "Launch Under Attack")

**General George Lee Butler, first commander, Strategic Command (1991-2)**

**"the people [in Strategic Command] who had to sit down and try to frame the detailed guidance for exact destruction of 80 percent of the adversary's nuclear forces.**

**"When they realized that they could not in fact assure those levels of damage if the president chose to ride out an attack, what did they do?**

**"They built a construct that powerfully biased the president's decision process toward launch *before* the arrival of the first enemy warhead.**

**"And at that point, all the elements, all the nuances of limited response just went out the window. The consequences of deterrence built on massive arsenals made up of a triad of forces now simply ensured that neither nation would survive the ensuing holocaust."**

(Interview in Jonathan Schell, *The Gift of Time: The Case for Abolishing Nuclear Weapons Now*, 1998, p. 194.)

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## Multiple warheads on US ICBMs

During Cold War, US had one thousand 1-, 3-, and 10-warhead ICBMs  
Today, US has 400 1-warhead "Minuteman 3" ICBMs. They are to be replaced by "Sentinel" missiles in the 2030s.

Proposals to upload to 3 warheads each once the New START Treaty expires in February 2026. **Sentinel designed to carry three heavy warheads.**

**Three warheads/ICBM would increase pressure on a US president to launch on warning because one Russian or Chinese warhead could destroy 3 US warheads.**

**National Nuclear Security Administration has crash program to produce 800 new warheads over 10 years for the upload option.**

**\$18-24 billion but could go much higher.**

Government Accountability Office: *National Nuclear Security Administration Does Not Have a Comprehensive Schedule or Cost Estimate for Pit Production Capability.*



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## The Alternative (former Secretary of Defense William Perry)

**Eliminate ICBMS, save \$150+ billion.** (Could life-extend Minuteman III.)

**Submarine-launched ballistic missiles and bombers are sufficient.**

Currently US has 8 ballistic missile submarines undetectable at sea with total of 160 submarine-launched ballistic missiles (SLBMs) that could carry up to 8 warheads each, so up to **1280** warheads.

Because of New START warhead limits, US SLBMs only carry an average of about half that many warheads today.

US has launched construction on 12 replacement ballistic missile submarines. (\$100+ billion)

**Put US nuclear bombers on strip alert in a crisis (unlike the ICBMs, *they can be recalled*)**

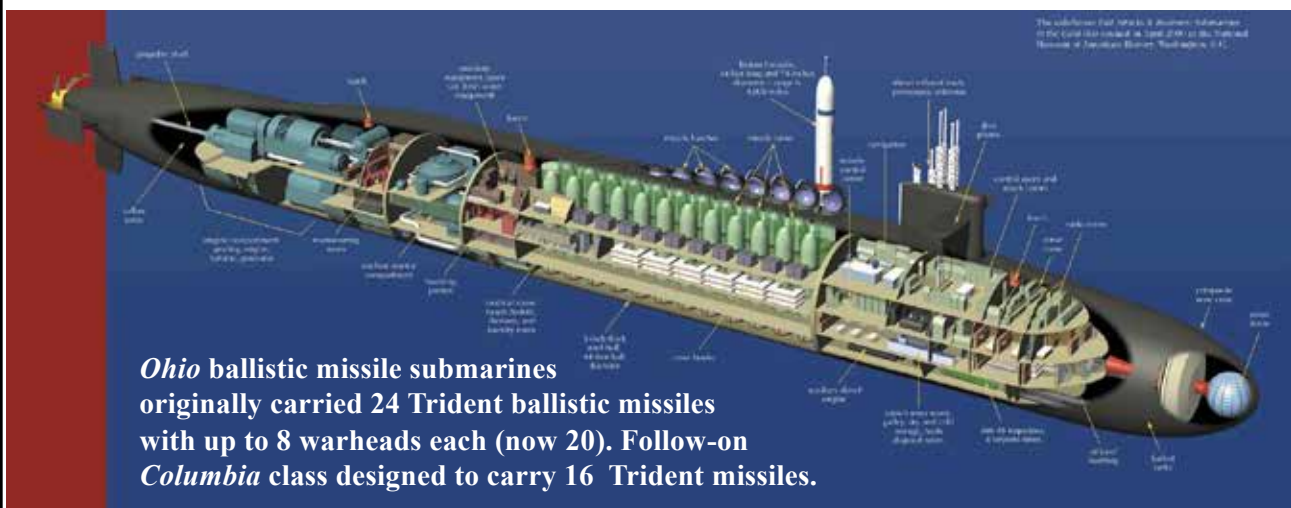
US currently has 40 B-52s, each equipped to carry up to 20 new stealthy long-range nuclear-armed air-launched cruise missiles.

US is building 100 stealthy B-21 bombers (\$100 billion) probably capable of carrying about 10 long-range stealthy cruise missiles each.

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## Ballistic missile submarines (undetectable when deployed in North Atlantic and Pacific)



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**B-52 can carry 20 air-launched stealthy cruise missiles to launch from beyond air-defense coverage. Will be complemented by stealthy B-21**

