

**ICBM EAR Report of December 20, 2024 Prepared by Peter Huessy, President of Geostrategic Analysis and Senior Fellow, National Institute for Deterrence Studies**

This weekly report collects material the ICBM EAR thinks will be useful for our readers to have at their fingertips and be able to read in 15 minutes. This week's top story is the new assessment of China's continued nuclear buildup. A key essay is by the new Chair of the Defense Subcommittee on Appropriations of the US Senate by the current minority leader Mitch McConnell, an excerpt which we post here. The new essay from the EAR is a memo on the consequences of killing the Sentinel and ICBM leg of the Triad—can the US sustain the same deployed and on-alert nuclear weapon and can the country sustain the same “hedge” against the possible need to increase the current New START allowed weapons?

**HOLIDAY FROM HARD POWER**

**by Senator Mitch McConnell**

The U.S. government spends nearly \$900 billion annually on defense, but considering the total amount of federal spending, the challenges facing the United States, the country's global military requirements, and the return on investment in hard power, this is not nearly enough. Defense is projected to account for 12.8 percent of federal spending in 2025, less than the share devoted to servicing the national debt. And each year, a larger portion of the defense budget pays for things other than weapons; nearly 45 percent of it now goes toward pay and benefits. [https://www.foreignaffairs.com/united-states/price-american-retreat-trump-mitch-mcconnell?utm\\_medium=promo\\_email&utm\\_source=fa\\_edit&utm\\_campaign=pre\\_release\\_mcconnell\\_b&utm\\_content=20241216&utm\\_term=ESZZZ004D4](https://www.foreignaffairs.com/united-states/price-american-retreat-trump-mitch-mcconnell?utm_medium=promo_email&utm_source=fa_edit&utm_campaign=pre_release_mcconnell_b&utm_content=20241216&utm_term=ESZZZ004D4)

**Commentary & Quotes of the Week**

**Defense Secretary Lloyd Austin:** Reaffirmed that the U.S.-ROK alliance remains “ironclad” regardless of political situations and reiterated their joint commitment to strengthening extended deterrence through the Nuclear Consultative Group.

**NIDS Senior Fellow Peter Huessy:** If the US eliminated the ICBM force in our nuclear TRIAD, and if the United States sought to sustain an “on alert” force of warheads we have today plus the additional 400 ICBM on alert warheads and 220 on alert SLBM warheads we could add as a hedge, the US would require the deployment of an additional 1246 sea-based warheads. This would provide 620 additional on alert sea-based warheads, requiring the acquisition of an additional 10+ Columbia submarines and 160 D-5 missiles at a cost of \$105 billion, but not until 2043-52 given the current shipyard building capacity.

**Deputy National Security Adviser Jon Finer:** “Pakistan is developing long-range ballistic missile capabilities that eventually could allow it to strike targets “well beyond South Asia,” making it an “emerging threat” to the United States.

**From Bill Gertz: The Defense Department's 2024 China Military Power Report:** Estimates that Beijing has added about 100 nuclear warheads to its stockpile over the past year and now has more than 600 in its inventory....the PRC is likely exploring the development of conventionally armed intercontinental ballistic missiles.

**Russian President Vladimir Putin:** Russia is advancing toward achieving our goals” in Ukraine and NATO-supplied missile defense systems deployed to Ukraine have no chance of stopping Russia's new Oreshnik missile.

**Russian Chief of the General Staff Valery Gerasimov:** The “topic of arms control remains in the past” because the “double standards of the West” make it “impossible to create an effective mechanism for mutual control.”

**Program Executive Officer for Strategic Submarines Rear Adm. Todd Weeks:** Underscored the importance of the Columbia-class ballistic missile submarine program and said that his organization is conducting “advanced procurement activities” to ensure that the submarine’s builders have the materials they need to keep construction of the boats on schedule.”

**Rolls-Royce:** “We are excited to have held a successful Critical Design Review for the F130 engine, another step towards delivering for the United States Air Force B-52J.

**Rep. Chuck Fleischmann (R-TN):**“During my keynote speech at [Friday’s] East Tennessee Economic Council meeting, I spoke about the urgent need to modernize and strengthen America’s nuclear deterrent. #TN03, with our assets like [Oak Ridge Lab], is on the frontline of making our nuclear deterrent capable of standing up to our adversaries such as China and Russia.”

**Air Force Global Strike Command: AFGSC deputy commander Lt. Gen. Lutton: Key** leaders from the [Air Force Nuclear Weapons Center], the SE&V Modernization Division of [the Air Force Life Cycle Management Center], the Aircraft Armament Systems career field & other DAF agencies received a demo of a robotic arm by RISE Robotics as part of our Munitions Lift Rodeo.”

### **Congressional Developments of the Week**

The Congress agreed on a path forward and passed a CR that involved a number of parts that would be voted on separately such as dealing with the debt limit early next year in the reconciliation package. The CR goes until March 14, 2025. The CR included disaster relief funding and agricultural assistive according to [Fox News Digital](#). “It would also involve an agreement to act on the debt limit next year as part of Republicans’ planned massive conservative policy overhaul via a process called reconciliation.”

### **Strategic Developments of the Week**

**Bill Gertz of the Washington Times:** “The latest DIA survey of [Chinese military](#) power reveals extensive PLA preparations for sophisticated information warfare operations against the United States, including the use of “deep fake” online posts and cyber-enabled psychological warfare. The goal is to target U.S. military leaders’ decision making in a regional conflict and to demoralize troops and sow divisions in U.S. society,”

**The PLA** is pursuing next-generation combat capabilities based on its vision of future conflict, which it calls ‘intelligentized warfare,’ defined by the expanded use of AI, quantum computing, big data and other advanced technologies at every level of warfare,” the report

**China says a new Pentagon [report](#) has added 50 new ICBMs, 1000 new GLCMs, and 300 medium range missiles, and 100 nuclear warheads in the last year.**

**A CSIS says China is also operating at the speed of Silicon Valley—or the speed of relevance, while the US defense department is operating like General Motors. .Continued the CSIS [report](#):** “China’s defense industrial base is operating on a wartime footing, while the U.S. defense industrial base is largely operating on a peacetime footing.”

**Russia’s lower house of parliament takes the Taliban off the terrorist list. [The Biden administration took the Houthis off the terrorist list in 2021.]**

## **Israel orders the evacuation of central Gaza**

While the Pentagon successfully tested a new hypersonic missile last week, American efforts to match China's growing arsenal of hypersonic missiles still lag years behind. Indeed, China's military has emerged as the [global leader](#) in ultra-high-speed, maneuvering missiles that cannot be countered with current U.S. missile defenses.

"The PRC has the world's leading hypersonic missile arsenal and has dramatically advanced its development of conventional and nuclear-armed hypersonic missile technologies during the past 20 years," the Defense Department [report](#) says.

## **Space Stuff:**

**Our space station astronauts are returning to earth after a 10 month journey that was man to last 8 days/  
Elon Musk says he can build a space rocket in the time it takes the US government to approve its launch.**

**Some states are moving to secure authority to deal with drones which under current law can only be detected and interdicted by federal authorities.**

China's advantage on hypersonics and its massive build-up of nuclear warheads and other conventional weaponry underscores the need for a [major upgrade](#) of America's homeland missile defense systems.

Robert Joseph, who served as a special assistant to President George W. Bush and a former undersecretary of state for arms control and international security, breaks it all down in a new piece for The Times. He [writes](#) that Mr. Trump "should restate the priority of homeland defense during the transition and on his first day in office. He must move quickly and achieve the key milestones in the first 18 to 24 months of his term. "To oversee the complex, expensive effort that will include multiple arms of the federal government and commercial defense industry, Mr. Joseph argues that Mr. Trump "should assign someone with a direct line to him to oversee the effort. "One candidate is Elon Musk. No one has a better track record of innovation and results," Mr. Joseph [writes](#).

## **Important Reports of the Week**

### **President Trump Must Put the Nuclear Enterprise on a Wartime Footing**

December 10, 2024 10 min read Download Report

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## **SUMMARY**

*The U.S. is building nuclear weapons at a glacial pace: At the current pace, it will be decades before the current arsenal is replaced. This is unacceptable. By operating at only a fraction of the level of production capacity that the U.S. did during the Cold War—and, subsequently, only producing a tiny fraction of the warheads that the United States produced in the Cold War—the U.S. runs the risk of undermining the credibility of its deterrence. Given the current security environment, the risk of a nuclear war is far higher—and has far greater consequences—than the risk of an environmental accident at a nuclear weapons lab. America must decide where it needs to best buy down risk.*

## KEY TAKEAWAYS

The United States must have a larger and more diverse 21st-century nuclear deterrent given the nature and composition of modern enemies' nuclear threats.

The incoming administration should not tolerate the continued failure to build the nuclear weapons that are the ultimate backstop of American security.

The President, the U.S. Secretary of Energy, and the NNSA Administrator can help complete the mission of stockpile stewardship and modernization.

## Missile Defense Essay of the Week

### Importance of building a homeland missile defense against all adversaries

U.S. strategic missile defense system illustration by Linas Garsys / The Washington Times [more >](#)

#### COMMENTARY

By Robert Joseph - *Wednesday, December 18, 2024*

#### OPINION:

More than 40 years ago, President [Ronald Reagan](#) challenged the nation to build defenses to shield America from ballistic missile attacks.

Despite successfully fielding capabilities against short- and intermediate-range threats to protect our military forces and allies, [Reagan's](#) challenge remains unmet. Except for small-scale strikes from North Korea, our homeland is defenseless against ICBM-class missiles of our enemies.

President-elect [Donald Trump](#) shares Reagan's vision and has pledged to build an effective American Iron Dome defense against all adversaries. A fundamentally different approach is needed to succeed, one that draws lessons from the past and recognizes that the established way of developing and deploying strategic defenses must be changed.

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[Reagan](#) rejected the long-standing conventional wisdom that mutual assured destruction provided the best means of deterrence. He saw the possibility that defending against missile attacks could stabilize the balance of power with the Soviet Union. The goal was never an impenetrable perfect defense but rather the ability to intercept enough missiles in an initial strike to decrease the Soviets' confidence that their objectives could be met, thereby strengthening deterrence.

After the Soviet Union fell, President George H.W. Bush continued the pursuit of strategic defenses through the GPALS program, which provided global protection against limited strikes. This program envisioned both ground-based interceptors and 1,000 small satellites with sensors and kinetic kill capabilities for intercepting missiles in space.

With President Bill Clinton, a distinct partisan pattern emerged. Secretary of Defense Les Aspin gleefully announced the end of GPALS. The Anti-Ballistic Missile Treaty prohibited all defenses to protect the nation and was upheld as the "cornerstone of strategic stability."

Under George W. Bush, we withdrew from the ABM Treaty and, in 2004, deployed defenses to protect against "handfuls" of missiles from rogue states such as North Korea. Although a major accomplishment, the GMD

(ground-based midcourse defense) system did not anticipate the coercive threats from Russia and China that have emerged recently, as witnessed over Ukraine and Taiwan.

The Obama administration did what the Clinton administration had done. Defenses were seen primarily as an arms control bargaining chip to secure nuclear reductions. The number of GMD interceptors was reduced, the third site in Europe was canceled and all major programs intended to keep pace with the North Korean threat were ended.

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President-elect [Donald Trump](#) said all the right things in his first term, but the results were disappointing. In remarks introducing the 2019 Missile Defense Review, or MDR, he said, “We are committed to establishing a missile defense program that can shield every city in the United States.” Mr. [Trump](#) emphasized that “space is a new warfighting domain” and that “my upcoming budget will invest in a space-based missile defense layer.”

Despite these promising words, the MDR focused almost solely on North Korea and called for a study of space-based interceptors. The next-generation interceptor, or NGI, became the program of record to augment or replace aging interceptors despite not contributing to the deterrence of coercive threats or perhaps even being able to keep pace with the North Korean threat.

That the Biden administration continued the NGI program is telling. The 2022 MDR explicitly ruled out defenses to strengthen deterrence against Moscow and Beijing. It also ruled out work on space-based interceptors on the grounds that such capabilities would “weaponize space.” Given the militarization of space by Russia, China and other adversaries, and the creation of our own Space Force, space is already “weaponized.”

The question is whether Mr. [Trump](#) will succeed this time or whether the naysayers, especially those in the Pentagon and State Department, will prevail again. Past results suggest that the naysayers will win out, but there is another path.

First, Mr. [Trump](#) should restate the priority of homeland defense during the transition and on his first day in office. He must move quickly and achieve the key milestones in the first 18 to 24 months of his term. Major initiatives that challenge standard government procedures must be undertaken before the bureaucracies reassert themselves.

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Second, the incoming team should build on previous work and contemporary analyses of space-based defenses that provide a firm foundation to proceed. The unique advantages of space have long been recognized but have not been pursued for political reasons.

Third, while the programmatic work must be conducted within the Department of Defense, the president should assign someone with a direct line to him to oversee the effort. This is not about cost or technology. A robust, space-based defense would likely cost a fraction of what is being spent on NGI, and the needed technologies have been achieved. This is about vision, determination and accountability.

One candidate is Elon Musk. No one has a better track record of innovation and results. While already taking on many tasks, this could be his most important. Mr. Musk has changed the world by delivering revolutionary capabilities in multiple sectors. Through SpaceX, he is putting up thousands of satellites at a cost thought unimaginable a few years ago. Having Mr. Musk oversee the homeland missile defense effort may provide the best opportunity for success. Most important, Mr. [Trump](#) would fulfill [Reagan’s](#) promise.

• *Robert Joseph was a special assistant to President George W. Bush and a former undersecretary of state for arms control and international security*

### **What Happens if the United States Eliminates the ICBM Leg of the Triad?**

Current US ICBM and SLBM Deployment is 1490 warheads of which 400 are MMIII and 1090 are Ohio class submarines with D-5 missiles. Of these warheads some 945 are “on alert” with 98% of ICBMs on alert and an assumed 50% of our SLBMs on alert.

With the proposals to eliminate our new ICBM—the Sentinel—we would then see Minuteman go out of the force as it would age out even around 2032-35 when it is now planned to be replaced by Sentinel.

The US deterrent would lose 400 warheads on alert and a hedge of 400 additional ICBM warheads. If we count the extra 50 but empty silos, we lose another 100 on deployed/alert warheads.

What would be the impact on the deterrent of the USA re the # of on alert warheads the US could maintain day to day? And what would be the impact of being able to maintain a “hedge” or the ability to build up to and beyond the 1490 missile warhead level the US maintains today?

1. To maintain 1490 warheads in the force (current deployed force of SLBM and ICBM warheads) with just submarines would require all 12 Columbia submarines to load each of their 16 missiles with 8 warheads—the maximum that could technologically be deployed. That comes to 1536 or just north of the currently available deterrent force. Of these, it is assumed some (50%) 768 would be “on alert.”
2. But to maintain 945 alert warheads (today's assumed deterrent force) would require acquiring additional submarines. A force of 1536 warheads on 12 Columbia subs would result in 768 being on alert, or some 180 alert warheads short of the current force. That would require building at least three additional submarines and 48 D-5 missiles at a cost of \$30 billion.
3. However, killing Sentinel loses the current 400 on alert warheads but also loses the United States 400 additional warheads that could be added to the Sentinel or 2 warheads per missile vs. the single warhead now planned.
4. To deploy a hedge of 400 additional “on alert” warheads (lost by killing the Sentinel) would require deploying 800 additional SLBM warheads or requiring at least 7 additional submarines and 112 D-5 missiles at a cost of \$69 billion, (\$9B per sub and \$31 million per missile).
5. Combined the additional cost to simply duplicate the current available force and planned hedge comes to \$99 billion which would give the US deterrent force roughly 1500 deployed and of which roughly 1000 would be on alert.
6. The US also would be one technology failure away from having zero prompt missile targeting capability.
7. In summary, if the US wants to maintain a force of 1490 today plus the 850 warhead hedge and do so solely using Columbia class submarines, that implies a required force that could grow to 2340 warheads.
8. But to sustain an “on alert” force of warheads we have today plus the additional 400 ICBM on alert warheads and 220 on alert SLBM warheads we could add, implies deploying 1246 warheads to get 620 on alert warheads. But to solely base them on submarine launched missiles, we would need (at a 50% alert rate) 10+ submarines and 160 missiles.
9. The extra cost then would be \$99 billion for the submarines and \$5 billion for the missiles. Plus, the additional operations and maintenance for sustaining 25 Columbia class submarines, not 12.
10. And acquires the additional submarines between 2042-2055 as the current shipyard can only build one submarine per year. .

#### SUMMARY TABLE

##### **Current deployed force**

1490 warheads

1090 SLBMs

400 Minuteman III

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##### **Current On Alert Current Force**

950 warheads or

400 Minuteman

550 SLBM/D-5

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**Modernized Force Submarines Only**

Deployed Force (To Match Today's Force)

Could deploy as many as 1536 warheads on 12 Columbia class submarines, x 16 missiles x 8 warheads per missile

To Match Today's On Alert Force

950 warheads require 15 submarines x 16 missiles x 8 warheads or 3 additional subs and associated missiles.

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**To Match Today's Hedge of** +400 MMIII warheads and +446 Ohio/D-5 missile warheads (Deployed)

Implies buying 7 More submarines costing \$63 billion and 112 missiles at \$3.4 billion or \$67 billion

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**To Match Today's On Alert Hedge of roughly** +623 warheads requires 1246 deployed warheads or

10 submarines and 160 missiles costing \$90 billion and \$5 billion, respectively.

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**Strange Story of the Week: Don't Make Your Threat Assessment "lurid," or "vivid" or "jam-packed with facts:**

China's Getting Ready to Throw Its Weight Around from TheBulwark.com, Dec. 20 | by Giselle Donnelly:

"In 1981, the Reagan Administration rolled out the first edition of what would become an annual publication: Soviet Military Power. Written under the aegis of the Defense Intelligence Agency, the 100-page assessment was chock full of **vivid** paintings of Soviet military hardware and installations and **jam-packed** with charts and graphs, all **presented in a lurid, fire-engine-red design** scheme. Thirty-six thousand copies were printed."