

# Will the 2024 presidential elections alter the course of the new nuclear arms race? (Part II)

## Proposals for a U.S. nuclear weapons buildup; to what extent will they succeed?

Greg Mello, Trish Williams-Mello, Los Alamos Study Group, August 6 (edited) & August 19, 2024

**QUICK SUMMARY:** Apparently, the nuclear weapons lobby is now calling a lot of shots in the headless Biden Administration. This administration is overtly threatening a new nuclear arms race and is also making short-term escalatory signals which deeply threaten Russia's security, as well as China's. These countries will respond accordingly, which is lucrative to military-industrial interests. At the same time outside parties are proposing even more hawkish efforts, up to and including massive nuclear rearmament. For reasons discussed below, these ambitious plans will fail.

Relations with Russia are pivotal not just for war and peace but also for dismantling the controlling national security state, which has gained commanding power in recent years, and regaining a constitutional republic. For those of us who seek nuclear disarmament, diminished nuclear threats, and more wholesome federal priorities, our opposition to further U.S. and NATO participation in the Ukraine War needs to be front-and-center.

In New Mexico we have a unique opportunity to intervene directly to prevent a new nuclear arms race, by opposing preparations for producing plutonium warhead cores ("pits") at Los Alamos specifically. Without LANL pits – the only new pits available for at least a decade -- the U.S. cannot compete in any nuclear arms race.



To subscribe to the Study Group's main listserve send a blank email to [lasg-subscribe@lists.riseup.net](mailto:lasg-subscribe@lists.riseup.net). See especially our pages for [plutonium pit production](#), the [Ukraine War](#), [nuclear weapons modernization](#), NNSA [plans](#), the [Call for Sanity](#). Detailed [home page](#).



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The so-called “nuclear triad.” Actually nuclear weapons currently can be delivered in 4 different ways by 7 different U.S. delivery vehicles, including 3 kinds of “dual capable aircraft” [DCAs] not shown: F-15E, F-16C/D, and F-35A.



The current “program of record” (POR) – the program required by law and funded by Congress – includes adding a 5<sup>th</sup> modality, a nuclear Sea-Launched Cruise Missile (SLCM-N).

On July 10, 2024, the Biden Administration [announced](#) the U.S. would begin “episodic” deployment of (nuclear-capable) ground-launched cruise missiles (GLCMs) and other “long-range fires” in Germany in 2026. The Russians then promised a mirror-image response.

From *Nuclear Matters*, 2020 edition, revised . Additions in *red* by LASG for this talk.

[In Department of Defense (DoD) budget]		[In the NNSA budget, within the Department of Energy]	
Delivery Platform	Delivery Vehicle	Current Weapon(s)	Near-Future Weapon(s)
SSBN	SLBM	W76-0, W76-1, W76-2, W88	W76-1, W76-2, W88 W93*
ICBM (Platform/Vehicle)		W78, W87-0	W87-0, W87-1 ** (+ W78-0, W78-1?)
DCA	Gravity Bombs	B61-3/4	B61-12 + B61-13
Bombers		B61-7/11, B83	B61-12 + B61-13
DCA or Bomber	ALCM	W80-1	W80-4
TBD	SLCM		TBD W80-X?

Figure 4.4 Current and Near-Future Nuclear Delivery Systems and Associated Weapons

\*New SRS pits for “latter half” of W93s, FPU “mid-2030s”; \*\*New LANL pits in all W87-1s, FPU 2031-2. [Hruby, 4/18/24.](#)

From [Nuclear Matters, 2020 edition, revised](#)

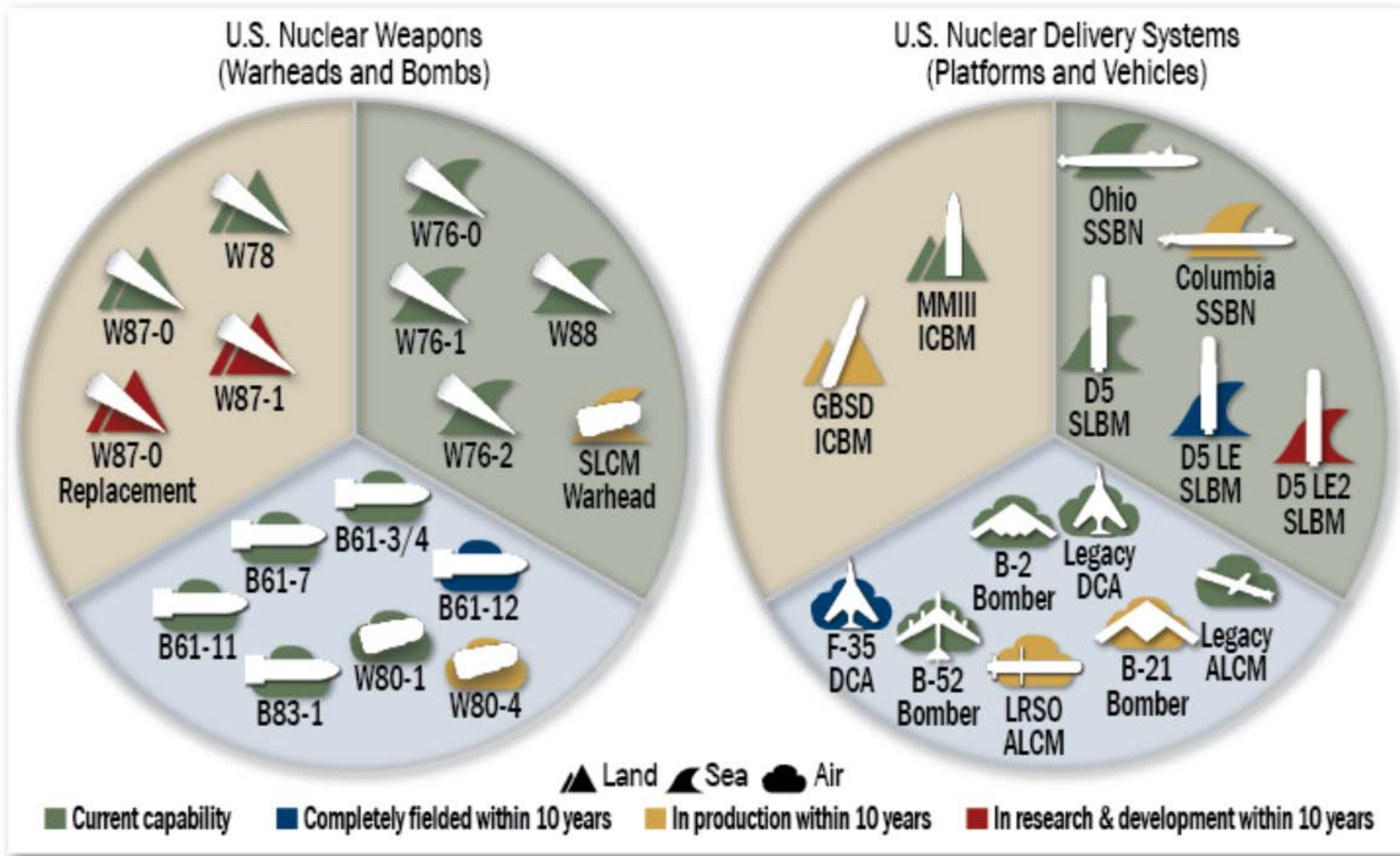


Figure 4.2 U.S. Nuclear Weapons and Associated Delivery Systems

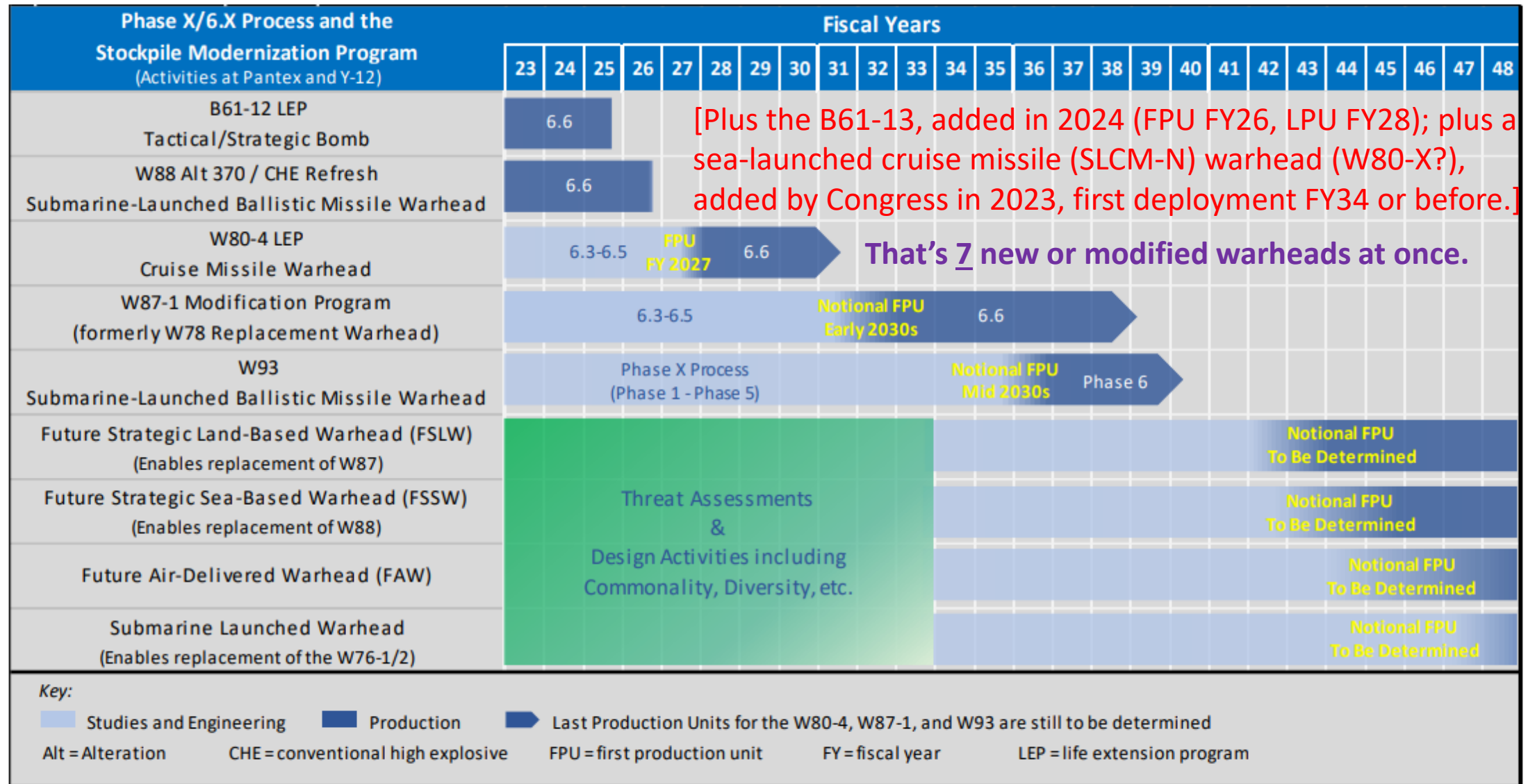


Figure 2–2. DOE/NNSA Warhead Activities

From [Nuclear Matters, 2020 edition, revised](#)

Warhead Type	Date of Entry into Stockpile	Planned LEP <sup>1</sup>	First Prod. LEP	Planned Repl. <sup>2</sup>	Projected FPU <sup>5</sup> for Replacement	Nuclear Component Age at Initial Replacement <sup>6</sup>
B61-3/4*	1979	B61-12 LEP	2020	FAW <sup>3</sup>	~2040–2050	~60–70 yrs
B61-7/11**	1985/1997	B61-12 LEP	2020	FAW	~2040–2050	~60–70 yrs
B83-1**	1983	Retired by 2025	n/a	n/a	n/a	n/a
Cruise Missile W80-1	1982	W80-4 LEP	2025	FAW	~2040–2055	~60–75 yrs
SLBM W76	1978	W76-1 LEP	2008	FBW <sup>4</sup>	~2045–2047	~65–70 yrs
ICBM W78	1979	n/a	n/a	W87-1	~2030	~50 yrs
ICBM W87	1986	Partial LEP	1999	FBW	~2035–2040	~50–55 yrs
SLBM W88	1989	Alt 370 Refresh	2022	FBW	~2035–2040	~45–50 yrs

\* Non-strategic bomb \*\* Strategic Bomb <sup>1</sup> Life extension programs (LEP) reuse nuclear components <sup>2</sup> Replacement requires nuclear component production <sup>3</sup> Future Air-Delivered Warhead (FAW) timeframe identified; characteristics to be determined <sup>4</sup> Future Ballistic Missile Warheads (FBW) initial studies planned; diversity and characteristics to be determined <sup>5</sup> First Production Unit <sup>6</sup> Replacement dates are notional

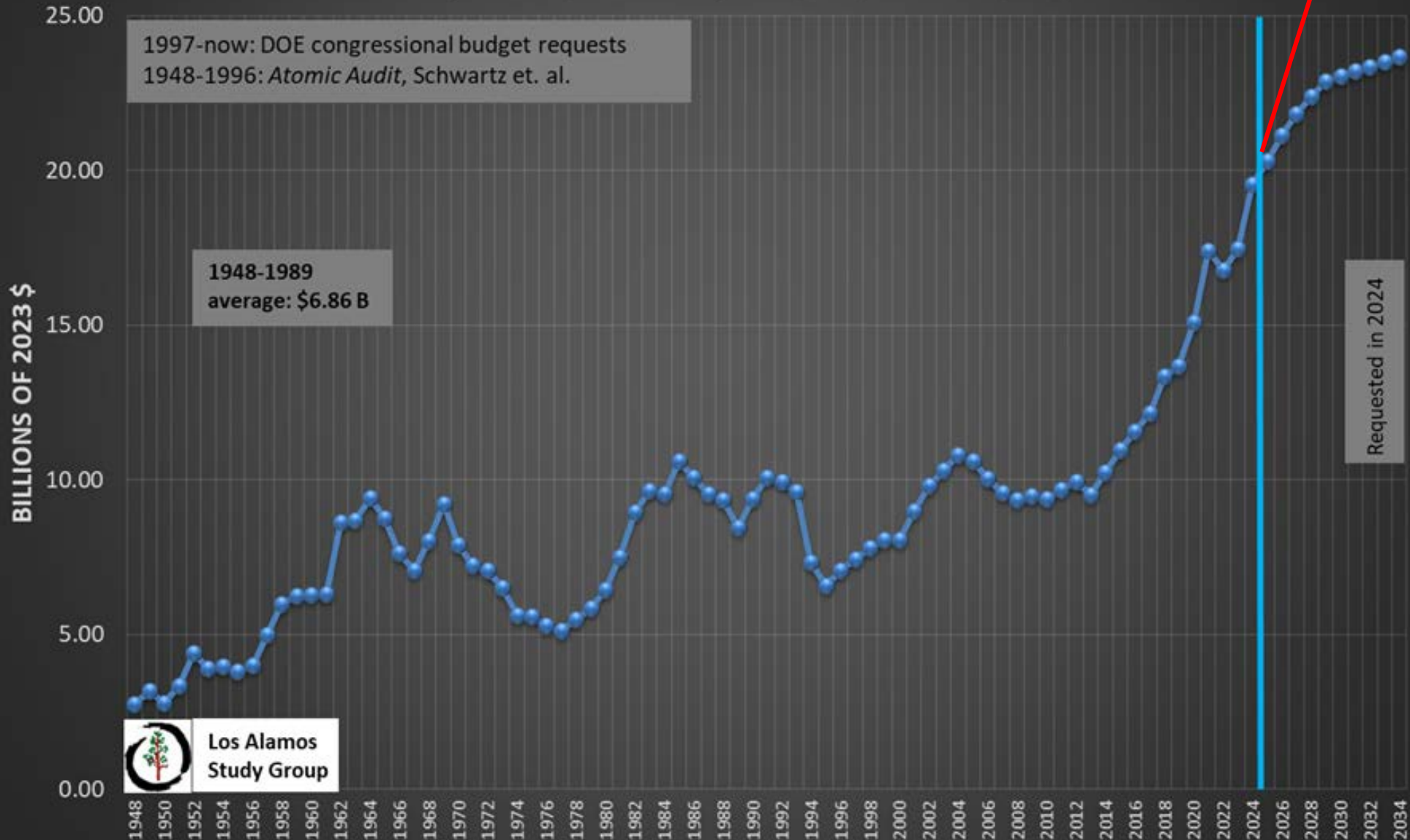
Figure 4.3 Aging of the Legacy Stockpile

Adjusting for inflation, the four years of the Manhattan Project cost approximately \$30 billion in 2023,<sup>28</sup> while **the total eight years of President Ronald Reagan’s nuclear build-up cost about \$75 billion.**<sup>29</sup> **The Biden administration’s nuclear weapons request for the coming fiscal year 2025 is \$69 billion,**<sup>30</sup> a sharp increase from the \$56.5 billion for nuclear weapons the Biden administration asked for last year.<sup>31</sup>

All told, the CBO estimates that the United States is set to spend some \$756 billion on DoD and DOE nuclear weapons ~~modernization~~ programs [sic; it’s all NW programs] between fiscal 2023-2032.<sup>32</sup> This averages out to **\$75 billion a year on nuclear weapons — more than two Manhattan projects every year for the next eight years....**

(from “[Current Defense Plans Require Unsustainable Future Spending](#),” Dan Grazier, Julia Gledhill, Geoff Wilson, Stimson Center, July 16, 2024)

**AEC/ERDA/DOE/NNSA Annual Spending for Nuclear Weapons Research, Development, Testing, and Production: NNSA Weapons Activities with administrative costs included; constant 2023\$; ≥FY25 requested, in then-year \$. Updated 3/11/24.**

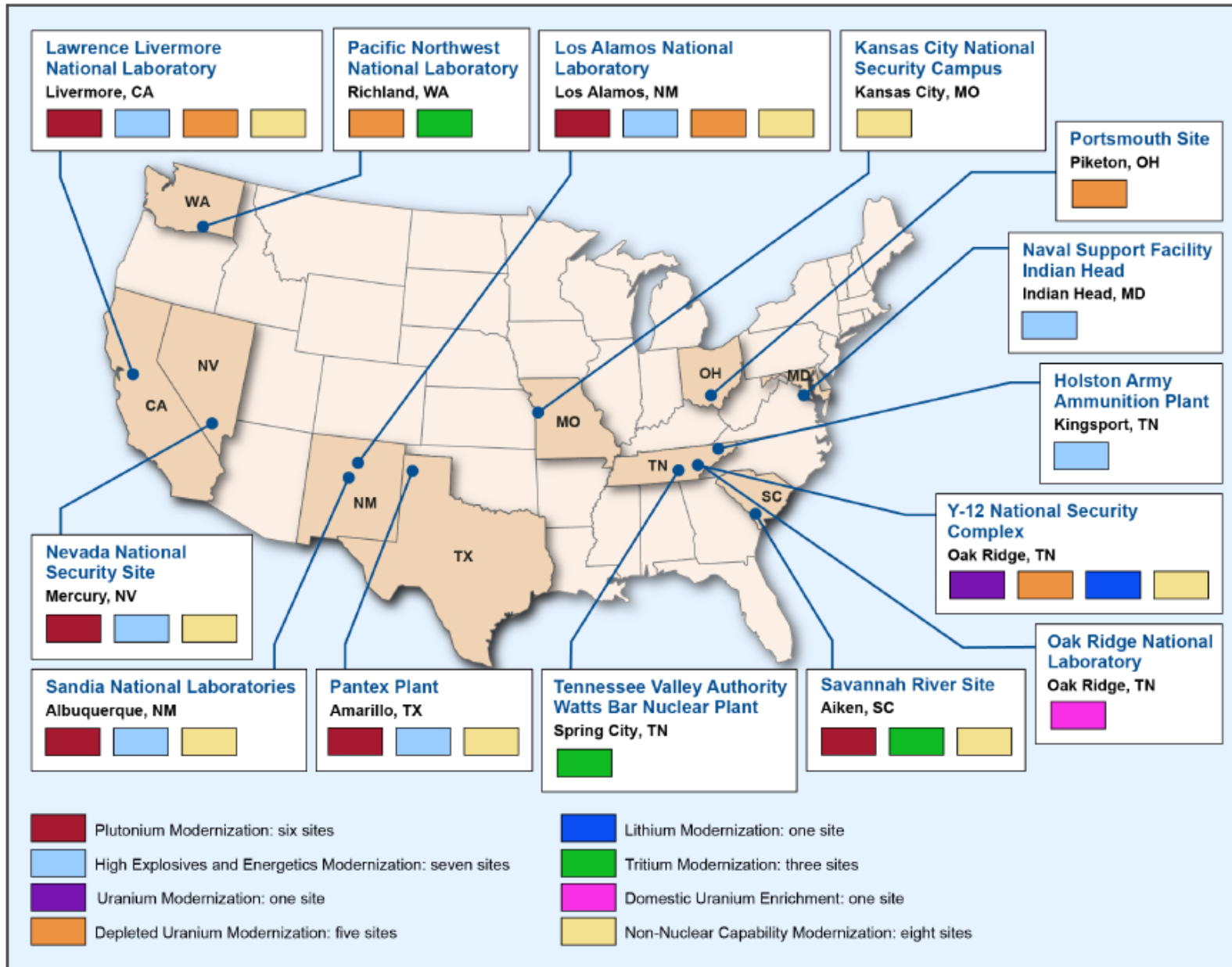


The red line shown, extrapolating current trends, is much more realistic for future years, if NNSA's present scope of work is not decreased. This situation is utterly unsustainable, as it indicates huge growth in DoD expenses of all kinds.



Figure 2: Sites Associated with the National Nuclear Security Administration's Production Modernization Effort

From [GAO-24-106342](https://www.gao.gov/products/GAO-24-106342),  
July 9, 2024



**Table 6: Major Capital Asset Projects Associated with the National Nuclear Security Administration’s (NNSA) Production Modernization Programs, as of January 2024 (from [GAO-24-106342](#))**

Production Modernization Program	Major Project (Location)	Planned construction completion date
<b>Plutonium Modernization</b>	Los Alamos Plutonium Pit Production Project, Los Alamos National Laboratory, LANL	March 2032
	Chemistry and Metallurgy Research Replacement Project PF-4 Equipment Installation, Phase 2 - LANL	Fiscal Year (FY) 2029
	Chemistry and Metallurgy Research Replacement Project Radiological Laboratory Utility Office Building to Hazard Category 3 – LANL	NNSA did not provide a planned completion date
	Transuranic Liquid Waste Treatment Facility Upgrade Project - LANL	August 2027
	Technical Area-55 Reinvestment Project, Phase III, LANL	FY 2027
	Savannah River Plutonium Processing Facility, Savannah River Site, Aiken, SC	FY 2032-FY 2035
<b>High Explosives and Energetics Modernization</b>	High Explosives Science and Engineering Facility, Pantex Plant, Amarillo, TX	March 2028
	High Explosives Synthesis, Formation, and Production Facility <sup>b</sup> , Pantex Plant	FY 2034
	Energetic Materials Characterization Facility <sup>b</sup> , LANL	FY 2034
	Radiography and Assembly Capability Replacement <sup>c</sup> , LANL	FY 2030–FY 2035
<b>Uranium Modernization</b>	Uranium Processing Facility, Y-12 National Security Complex, Oak Ridge, TN	February 2029 <sup>d</sup>
	Electrorefining Project, Y-12	February 2025
	Direct Chip Melt Bottom Loading Furnace, Y-12	FY 2029 – FY 2032
<b>Lithium Modernization</b>	Lithium Processing Facility, Y-12	FY 2031 <sup>e</sup>
<b>Tritium Modernization</b>	Tritium Finishing Facility <sup>b</sup> , Savannah River Site, SC	FY 2034
<b>Non-Nuclear Capability Modernization</b>	Power Sources Capability facility, Sandia National Laboratories, Albuquerque, NM	FY 2030

Source: GAO analysis of NNSA documentation and NNSA officials’ statements. | GAO-24-106342

**(A big project omitted by GAO in the previous study because it is not a big-enough federal construction line item)**

**[KCNSC begins first phase of \\$6.4 billion project with \\$199 million construction deal](#)**

July 12, 2024, By Sarah Salem, *Exchange Monitor*

The National Nuclear Security Administration announced this week it entered into a multi-year agreement in May to expand operations and office space at the Kansas City National Security Campus in Missouri.

The National Nuclear Security Administration (NNSA) made the agreement with Promontory 150 LLC in May to purchase both land and what a spokesperson for the Kansas City National Security Campus (KCNSC), in an email to the Monitor, called a “build-to-suit” facility.

KCNSC is NNSA’s factory for non-nuclear nuclear-weapon parts. The new facilities will aid with designing, testing, and production of non-nuclear weapons components, according to the press release announcing the real-estate deal.

The KCNSC spokesperson told the Monitor that this first phase of the project, called the Kansas City Non-Nuclear Expansion Transformation (KC NExT), is “envisioned to be the first of several purchase agreements under this project.” The cost for phase one would be \$199 million, paid upon completion of the building, which is set to be completed in the summer of 2026, the spokesperson said.

KC NExT aims to add around 2.5 million square feet of manufacturing and office space to accommodate growth in KCNSC, according to the release.

“KCNSC has experienced significant growth in workload and personnel to support NNSA’s planned modernization of the nuclear deterrent,” the NNSA wrote in the release.



## DoD 'exploring' options for nuclear buildup as part of strategic review

(*Breaking Defense*, Aug. 1, 2024, Theresa Hitchens)

**Vipin Narang, DoD's top nuclear policy official, explained that while current modernization plans — estimated by the Government Accountability Office last October to cost at least \$350 billion over the next two decades — are "necessary," they "may well be insufficient" to meet current and future threats.**

In the face of growing threats from Russia, China and North Korea, the Defense Department is considering options to increase the number of [nuclear weapons](#) launchers and warheads at its disposal as part of a year-long strategic review, according to a senior Pentagon policy official.

**“We have begun exploring options to increase future launcher capacity or additional deployed warheads on the land, sea and air legs that could offer national leadership increased flexibility, if desired, and executed,” Vipin Narang, acting assistant secretary for space policy, told the Center for Strategic and International Studies’ Project on Nuclear Security Issues today....”[W]hile still pursuing diplomatic avenues, the Biden administration is now pursuing “a more competitive approach.”**

## The Biden Administration is also taking *immediate* steps to prepare for increased nuclear stockpiles, sending escalatory signals.

- Expanding the number of B-52H nuclear heavy bombers from 46 to 76 is said to cost only [\\$4.5 million](#), during routine maintenance over the March 2026 to 2029 period. Doing so will soon be a [legal requirement](#) *binding on the next administration*, in the must-sign FY25 National Defense Authorization Act (NSAA).

As each B-52 can carry 20 air-launched cruise missiles with nuclear warheads, this would add up to 600 warheads to U.S. deployments, assuming the legacy missiles are available or could be made. There were ~1,806 W80-0 warheads available in 2007 (Kristensen); I do not know how many have been dismantled if any. A new cruise missile, the Long Range Stand Off (LRSO) weapon, is to be deployed in the late 2020s with an upgraded warhead, the W80-4.

- A promise, made with the German government, to station GLCMs in Germany, as noted above. This decision is creating popular opposition in Germany, which would become a nuclear target for Russia as a result.
- For more discussion of Biden Administration plans see LASG, [U.S. Considers Expanding Its Nuclear Arsenal](#), Jun 10, 2024.

**Then we have these proposals, which go beyond the Biden POR – some of them far beyond:**

- [America's Strategic Posture: The Final Report of the Congressional Commission on the Strategic Posture of the United States](#), Oct 2023. (For a summary see [Posturing Ourselves to Death So Contractors Can Thrive](#), Nov 16, 2023.)
- Senator Wicker's [proposal](#). ['Generational' defense pitch has nuclear-weapons policy, force changes, more NNSA funding](#), *Exchange Monitor*, May 31, 2024.
- [Placeholder for various new requirements in the House and Senate versions of the FY25 NDAA, pending final passage later this year, aiming to bind the future president.]
- ["A Nuclear Posture Review for the Next Administration: Building the Nuclear Arsenal of the 21st Century"](#), Robert Peters, Heritage Foundation, July 30, 2024. Comprehensive, hawkish.
- ["Integrated Deterrence Considerations for the Nuclear Enterprise"](#), Christopher Yeaw, National Strategic Research Institute, Jan. 31, 2024. Yeaw suggests a LOT more nuclear weapons, including many made from recycled pits.

## Failure looms. Look at the big picture (modified from 7/15 webinar; [slides](#), [video](#)). (I)

- Sentinel is going to be delayed “[several years](#),” a momentous official comment with long “coat-tails”. The actual situation on the ground is going to be worse than has currently been absorbed in the official mind, at least openly. (Subsequent to the 7/15 webinar we learned more. At the risk of revealing too much, see this [letter to activists](#) and [Bulletin 348](#).)
- **What this means is the entire concept of nuclear deterrence is going to need to be re-thought, whether the "powers-that-be" want to do that or not.** The *forces majeure* we have spoken about over the past few years, and specially this year, are beginning to express themselves. (Some are listed below.)
- The W87-1 warhead for Sentinel requires LANL pits and LANL pits only, NNSA has said (e.g. Hruby speech of 4/18/24. LANL is the only possible source for these pits. Yet LANL cannot make enough pits to fully outfit Sentinel with 3 MIRVs, even if LANL fully succeeds in its enormously expensive and fragile pit mission and all W87-0s are also used. We also know the LANL pit mission will be temporary (see [here](#)), even if “successful.”



## Yes, failure looms, but it's timing and nature depend on society and politics (II)

- LANL has failed in the pit mission four times already. Success is hardly assured, as there are numerous adverse circumstances. Successes in halting SNML (1990), MPF at SRS (2008) and CMRR-NF (2012) were highly consequential in preventing a US arms race, *and remain so*.
- Numerous NNSA [delays](#) and extended [schedules](#) for production modernization run afoul of crammed production schedules. NNSA does not have, and is not close to getting, a modern production infrastructure for the current program of record, let alone more. Many current facilities are old and ailing.
- NNSA does not yet have, and is not yet quite adequately retaining, the trained, skilled, *motivated* workforce it needs for its expanded mission. The “heroic mode of production” won’t happen, regardless of pay and benefits offered. Workforce problems won’t entirely go away. The “Cold War II” shtick won’t sell on Main Street while society is increasingly unhoused.
- NNSA cannot just “add shift work” for nuclear weapons work. The infrastructure, trained workforce, and societal support aren’t there and won’t be there any time soon.



## Then come various *forces majeure* (III)

- The growing federal debt bomb, made worse by high interest rates and gradual de-dollarization. There are also contagious financial fragilities resting on a narrow base of real assets.
- Deteriorating environmental conditions under climate change (e.g., see [LANL VARP](#)).
- The possibility of undiscovered/unappreciated major environmental issues (e.g. PFAS, VOCs at missile silos). We have mentioned the poor condition of the silos already.
- Safety “hiccups” *will* (not may) *lead* to shutdowns, scrutiny, and lower morale.
- Decline in *prosperity* (discretionary income per capita) is underway and will continue due to the rising energy cost of energy (ECoE). In neoliberal economies this will lead to increasing inequality and social instability. This is not a matter of “if” but “when.”
- The West is undergoing strategic defeat in Ukraine and moral defeat in the Middle East.
- U.S. politics and news media have quite suddenly become much more corrupt and indeed totalitarian. This is an explosive situation. The U.S. qua U.S. is gravely threatened.

**Extra slides (edited from the June 20, 2024 Veterans for  
Peace national [webinar](#))**



**First, let's go straight to the central bottom line for those who seek to avoid nuclear war and reduces in nuclear weapons threats:**

**We need to make our opposition to further U.S. and NATO participation in the Ukraine War front-and-center, seeking diplomacy and peace with Russia instead of war and sanctions. We need new political alliances to win this peace.**

**Halting the long-standing hybrid war against Russia is necessary (but not sufficient) for:**

- **Preventing wider great power war, and nuclear war, now and in the future;**
- **Promoting (arms control and) nuclear disarmament;**
- **Dismantling the controlling national security state and thereby regaining a constitutional republic; and**
- **Dismantling the U.S. empire and fostering a multipolar world of sovereign states, under international law.**

If we want disarmament we are going to need peace. To win that peace we are going to have to make it an actual political priority – which I don't see happening in the anti-nuclear community.

What is the current situation in nuclear weapons policy?

- There has been no significant nuclear disarmament in the last decade.
- The nuclear weapons modernization program is growing and evolving. More new warheads and bombs are being proposed; more are being funded than the National Nuclear Security Administration (NNSA) can even build on schedule. Four new and reconditioned delivery platforms are proceeding despite politically-minor criticism; another (SLCM-N) has now been required and funded.
- Congress tends to add money to the already-extravagant requests, not trim them. There is almost no oversight happening. For pits, a \$22 billion temporary factory is being built in Los Alamos to deliver additional (MIRVed) warheads for Sentinel.
- MANY provocative nuclear policy steps are proposed, some are likely to be adopted.



## Further highlights of the current nuclear arms situation:

- The Russian Federation, for many good reasons, considers the U.S. “non-agreement capable” and is fielding advanced nuclear systems (e.g. Poseidon). Russia is no longer interested in most arms control and won’t be for many years to come. Real arms control is dead. We are at war with Russia, for crying out loud!
- As of February of 2026 there will be no quantitative limits on U.S. and Russian strategic nuclear arms.
- China is expanding its nuclear arsenal fairly rapidly.
- Russia has a new mutual defense treaty with the DPRK, which has a new ICBM (from Russia?) and is also expanding its nuclear arsenal.
- The U.S. has a) helped carry out attacks on strategic nuclear targets inside Russia, b) facilitated large-scale terrorism in Russia, and has now c) supported a ground invasion of Russia (a unfolding disaster for Ukraine, but that’s not our point here).

**What do these and many other related facts tell us? They tell us we have lost the battle for nuclear disarmament for a generation. Our immediate job now is to prevent wider war, which might well mean nuclear war – twin catastrophes that we are approaching.**

## **Not everything with “nuclear” in its name is mutually-supportive, or even related**

- **Nuclear power issues are essentially unrelated to nuclear weapons.**
- **Historical issues are historical, not current.**
- **It is impossible to strategize about things that may or may not happen in 2035 or 2040, after the huge economic, environmental, and social changes we confidently anticipate.**
- **The U.S. will never sign the TPNW. That’s a red herring, which takes energy away from useful work. Some of us worked hard to get that Treaty, but we never had the notion that the U.S., or any other nuclear state, would sign it. That was never its purpose. It was never a nuclear disarmament treaty in that direct sense.**
- **Compensation for past nuclear injuries has essentially nothing to do with nuclear weapons policy, or war and peace, beyond providing useful whitewashing for nuclear weapons and nuclear colonialism. This is a virulent problem in New Mexico.**
- **Nonproliferation is not at all the same as disarmament.**
- **Cleanup of nuclear weapons sites has little or nothing to do with current missions.**
- **Being vaguely “antinuclear” is meaningless. Conflation of various “nuclear issues” is highly counterproductive.**

## Further reflections:

- **Deep vocational commitments to nuclear disarmament are always respectable, as spiritual endeavors that light the way at the very least.**
- **That said, we need to win. Winning is very important, more so than performative actions that signal virtue but accomplish little else. We need to find ways to win on the big issues or the best parts of civilization won't survive. We have a duty to win.**
- **It is very hard to see how a campaign of financial divestment in nuclear weapons companies will ever be fruitful. It hasn't been and it won't be.**
- **Current impacts matter politically – to people, places, habitats, communities, and cultures. Nuclear weapons activities happen somewhere. They aren't just abstract entities in a theoretical policy space.**
- **There has been a successful effort to shut down and/or redirect the U.S. peace and disarmament movements into harmless channels, led by major funders and the U.S. government. It is an ongoing “color anti-revolution,” somewhat documented.**

- **We are in a whole new world, which challenges us to change our mentality as well as our foreign and domestic policies. Yesterday's verities may not apply today.**
- **The vast sums given to the national security state have create a powerful second government, which in effect controls our constitutional institutions.**
- **Internationally, the U.S.-led international order is crumbling. This is a tremendous opportunity.**
- **Various *forces majeure*, including the need to service debt or default, are coming to the fore. This means many things for us, politically.**
  - **One is that there will never again be a successful mass movement for nuclear disarmament in the U.S. There are now, and will be, too many other things going on requiring attention, including being able to live indoors and eat food.**
  - **Another is that the military and nuclear weapons establishment will not get all they want. Their present domination is incompatible with national survival.**