



Nuclear Weapons: From Opposition to Abolition

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We must articulate a path, a plan, for the total elimination of nuclear weapons.

Current State of Nuclear Weapons

Nation	Deployed Warheads	Total Warheads
United States	1744	5428
Russia	1588	5977
China	272	350
United Kingdom	120	225
France		~300
India	128	160
Pakistan		~165
Israel		~90
North Korea		~20-30

12,720
Total
Warheads

Specific numbers of warheads and launchers come from the Bulletin of the Atomic Scientists Nuclear Notebook which is freely available online. See <https://thebulletin.org/nuclear-notebook/>
Over 12,700 nuclear warheads in the world today. The US and Russia account for over 11,400.

“Deployed Warheads” are warheads that are mated to ballistic missiles or stored close to dedicated bomber aircraft. For the most part they are essentially ready to launch on short notice.

For the U.S that number includes 944 warheads loaded in Trident ballistic missile submarines, 400 in Minuteman ICBM silos, 300 at 2 bomber bases in the U.S. and 100 tactical bombs in Europe.

The Way to Nuclear Disarmament
A Phased Process

We call on our government to aggressively reduce our nuclear weapons stockpiles with a goal of complete nuclear weapons elimination.

The Way to Nuclear Disarmament
1. Call on the US and Russia to dismantle non-deployed nuclear warheads.

Phase 1: The majority of nuclear warheads in both the U.S. and Russia’s stockpiles are not deployed.

“Not deployed” means the warheads are stored separate from launchers and are not available for use on short notice.

Includes obsolete, but intact, warheads maintained in storage bunkers.

Deployed vs Non-deployed Warheads

Nation	Deployed Warheads	Non-deployed Warheads
United States	1744	3684
Russia	1588	4389
China	272	78
United Kingdom	120	105
France		~300
India	128	32
Pakistan		~165
Israel		~90
North Korea		~20-30

8073 of US and Russian warheads are non-deployed

With national security strategies generally based on strategic deterrence using deployed warheads, reduction of non-deployed warheads can be accomplished without affecting readiness.

Non-deployed Warheads

	Retired	Strategic Reserve	Tactical	Total
US	1720 (DOE)	1864	100	3684
Russia	1500	977	1912	4389

US and Russia each have over 1500 retired warheads in storage. The US warheads are mostly intact assemblies stored under Department of Energy control near Albuquerque. They can be dismantled unilaterally, reducing the U.S. stockpile by nearly 40% with no change in our government's national security strategy. Russia has a comparable number and could do the same.

To reduce inventories both nations should resume dismantling obsolete warheads as they did prior to 2010. This can be done unilaterally or bilaterally. Has no effect on readiness, but demonstrates intent.

Moving to the next 2 columns, note that the U.S. has a larger strategic reserve while Russia has more tactical warheads. Dismantling those warheads will require effective bilateral cooperation with Russia.

The Way to Nuclear Disarmament

1. Call on the US and Russia to dismantle non deployed warheads
2. Renegotiate New START with Russia to achieve a “minimum deterrent” strategy

Phase 2: Renegotiate the Strategic Arms Reduction Treaty with Russia. War in Ukraine complicates bilateral negotiations with Russia, but it is vital that they move forward.

Demand that the new treaty provide for a transition to minimum deterrence that results in a level playing field with Russia, China and the other six nuclear weapons states. New reduction will form a basis for future negotiations leading to total elimination of nuclear weapons.

Next version of START must reduce the number of deployed warheads and their launchers, and must apply to non-deployed warheads as well.

New START (Strategic Arms Reduction Treaty)

- Bilateral treaty between US and Russia.
- Limits deployed warheads to 1550 and deployed launchers to 700.
- Provides for verification.
- Does not limit non-deployed warheads.

New START ratified in 2010. The key word in the acronym is Reduction. The one treaty that limits the number of deployed warheads that the U.S. and Russia can maintain.

Last year the U.S. came perilously close to allowing New START to expire. New START was scheduled to expire on February 5, 2021, just 2 weeks after the start of the Biden administration. Trump administration opposed extending the existing treaty and failed to negotiate a new treaty. Now in force until 2026.

Without New START inspections and notifications conducted by both sides to enforce the treaty would cease. Intrusive on-site inspections, open skies agreements, and extensive notifications of tests and weapons movements have raised confidence by providing a reciprocal window into deployed weapons status.

Without New START there would be no limit on the number of deployed nuclear weapons.

Minimum Deterrent

- An application of deterrence theory in which a state possesses no more nuclear weapons than is necessary to deter an adversary from attacking.
- Several government and non-government studies have concluded 300 to 1000 warheads are credible.
- Based on the types and yields of warheads currently deployed, 500 is a reasonable round number.

Minimum Deterrence is a transitional level that the U.S. and Russia must achieve before the final phase of reductions can begin. It's about the concept. Specific numbers not that important.

Minimum deterrence requires no first use policy and is essentially retaliatory.

Minimum deterrence is incompatible with counterforce missions, attacks designed to destroy the adversary's nuclear weapons, which only makes sense as a first strike option.

Minimum deterrence won't support multilateral security commitments. Hence there would be no more nuclear umbrella for our allies. Provides motivation for NATO states and the Pacific allies to join the Treaty for the Prohibition of Nuclear Weapons.

How would the US achieve "minimum deterrent"

1. Decommission all 400 ICBM Silos
2. Decommission all 46 B-52 Bombers
3. Decommission 6 of 14 Trident SSBNs
4. Remove 100 deployed warheads from Europe

Lots of formulas for reducing deployed weapons to achieve minimum deterrent.

ICBM's are most vulnerable to a counterforce first strike, so there is great urgency to use them.

Should be eliminated early in the process. Air Force of course disagrees. Minimum deterrent strategy is transitional to total elimination of nuclear weapons.

New replacement strategic weapons system funding must be terminated. Cancel Columbia Class SSBN, Ground Based Strategic Deterrent, and B-21 Bomber programs.

Non-deployed Warheads

	Retired	Strategic Reserve	Tactical	Total
US	1720 (DOE)	1864	100	3684
Russia	1500	977	1912	4389

New START doesn't apply to non-deployed warheads. The next iteration must. If this treaty had been allowed to expire in 2021, the U.S. was positioned to double its deployed warheads in a matter of weeks. Note U.S. Strategic Reserve number. There are over 1000 W76-1 warheads divided between the 2 Trident bases. Those warheads could be uploaded into vacant spots on Trident 2 missiles on the SSBN's. Each missile can carry up to 8 warheads; they are currently loaded with 4-5 warheads per missile. Similarly, there are 400 W-78 warheads stored at Warren AFB in Wyoming. Those could be uploaded into vacant spots on Minuteman III ICBM's. Finally, there are several hundred bomber weapons that could be deployed.

Strategic reserve and tactical warheads must be eliminated as an essential part of the next START. As long as those warheads remain available, they can be deployed whenever tensions rise between the U.S. and Russia.

Limit reserve warheads to 150. This level allows for normal maintenance and rotation of ballistic missile submarines and B-2 bombers.

Minimum Deterrent with 150 warhead reserve

Nation	Deployed Warheads	Total Warheads
United States	500	650
Russia	500	650
China	272	350
United Kingdom	120	225
France		~300
India	128	160
Pakistan		~165
Israel		~90
North Korea		~20-30

Worldwide
Total = 2615

This is what it looks like. 650 warheads each for the U.S. and Russia and about 1300 total for the other 7 nuclear weapons states. Will take several years to achieve.

1. Zero ICBM's and warheads
2. 20 B-2 Bombers with a total of 40 B-61 warheads
3. 8 Trident SSBNs with 16 missiles and 72 warheads each (6 ships deployed and 2 in maintenance with missiles/warheads in reserve status)

One formula that illustrates a U.S. minimum deterrence posture. Air Force would retain the strategic triad concept with some ICBM's and fewer Tridents.

1. Zero ICBM's and warheads
2. 20 B-2 Bombers with a total of 40 B-61 warheads
3. 8 Trident SSBN's with 16 missiles and 72 warheads each (6 ships deployed and 2 in maintenance with missiles/warheads in reserve status)

Which adds up to 472 deployed and 144 non-deployed warheads!

Complies with a minimum deterrent limit of 500 deployed and 150 reserve warheads.

Additional New START Provisions

- Continue on-site inspections, open skies agreements and notifications.
- Provide for verification of warhead dismantling and launcher decommissioning.
- Require destruction of plutonium pits and their fabrication facilities.
- Negotiate a separate bilateral Treaty with China

Next START must address inspection and verification protocols.

3rd bullet is really important. Vital that pits are destroyed to prevent their use in rearmament efforts. If you have a pit you can build a bomb. Over 15,000 pits stored at the Pantex site in Texas. Project to convert Pu pits to mixed oxide fuel for use in commercial reactors was terminated in 2018. DOE funded to produce new pits.

U.S. must terminate new pit production and commit to destroying all old pits in storage as well as pits that are removed from active warheads as they are dismantled.

Negotiate with China to stem its plans for nuclear weapons expansion during a period of U.S. and Russian reductions.

“15,000 pits” ref: SRSWatch 03/18/22 (<https://srswatch.org/safety-board-concerned-about-safety-of-plutonium-pit-storage-at-does-pantex-site-in-texas-implications-for-unsafe-production-at-proposed-srs-plutonium-bomb-plant-pbp/>)

The Way to Nuclear Disarmament

1. Call on the US and Russia to dismantle non deployed warheads
2. Renegotiate New START Treaty
3. Enter negotiations under Article 6 of the NPT including all nuclear weapons states leading to complete disarmament under United Nations control

Final phase: Decommissioning and dismantling warheads and launchers under the Next START would lower U.S. and Russian stockpiles to about 650 warheads each. During this process the total stockpiles of the other 7 nuclear weapons states combined should remain around 1300 warheads. Manageable number to enter final phase, multilateral negotiations among all 9 nuclear weapons states under the terms of Article 6 of the Nonproliferation Treaty.

Nonproliferation Treaty (NPT)

Article 6 requires nuclear armed states to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament in all its aspects under strict and effective international control.

191 nations are party to the treaty.
India, Pakistan, and Israel never entered.
North Korea withdrew in 2003.

NPT still the holy grail of nuclear weapons treaties The 2022 NPT Review Conference ended in August without consensus on a final statement. The nuclear weapons states, primarily the U.S. and Russia, engaged in politically charged conflict over the war in Ukraine, which derailed the Conference.

Treaty on the Prohibition of Nuclear Weapons (TPNW)

- Signed by 91 nations, ratified by 68 nations.
- Not signed by any of the 9 nuclear weapons states.
- Not signed by the “nuclear allies”: 27 NATO nations, nor South Korea, Japan, and Australia.

Completes suite of international bans on indiscriminant inhumane weapons systems, e.g. chemical and biological weapons, landmines, and cluster bombs.

The TPNW will remain incomplete until the 9 nuclear weapons states agree to disarm.

The Way to Nuclear Disarmament

Finally, each former nuclear weapons state shall sign and ratify the TPNW, and submit to verifications under a Safeguards Agreement with the International Atomic Energy Agency

Verification key to nuclear disarmament. Cooperative verifications work; the U.S. and Russia have conducted hundreds of intrusive inspections and thousands of notifications to verify deployed launchers and warheads under New START and other treaties. Inspections under control of the United Nations can and will ensure compliance, but only if the great powers commit to permanent funding of inspection and verification protocols.



The Way to Nuclear Disarmament

It's that simple. Imagine the total elimination of nuclear weapons!