



ARCTIC SECURITY BRIEFING PAPERS

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Denuclearization and the Golden Dome

Amidst the new American President's persistent rhetorical attacks on Canadian sovereignty we might still allow brief recognition of his repeated and, in some ways, unprecedented references to what he calls "denuclearization." One can hardly quarrel with his view that "the power of nuclear weapons is crazy," or his conclusion that "it would be great if everybody would get rid of their nuclear weapons." Given his famously mercurial and regularly insulting outbursts, few political friends or adversaries seem ready to take up the challenge and encourage the president to move from an apparent ambition to action. Of course, there is always a caveat, and in this case it's major, since it is the same President that has mandated the development of an "Iron Dome" (renamed the "Golden" dome) of missile and air defences that would derail any serious nuclear disarmament efforts. Even so, governments supportive of concrete nuclear disarmament would do well to press the point and explore whether there are any arms control opportunities in those musings.

Denuclearization – idle musing or serious intention?

Rarely do you hear an American President publicly complain about the costs of nuclear arsenals ("Tremendous amounts of money are being spent on nuclear weapons...", says Trump), describe their "destructive capability" as "too depressing," and suggest it is "very possible" to "denuclearize." On another occasion he saw "no reason for us to be building brand new nuclear weapons," when existing weapons could already "destroy the world 50 times over, 100 times over" – arguably, that's a pretty concise critique of current "modernization" programs. In fact, President Trump has in one sense simply, if surprisingly, restated what remains the long-time, formal, global intention: "it would be great if everybody would get rid of their nuclear weapons" (see this end note for a slightly more detailed account of his denuclearization comments¹).

President Trump being Trump, we are left to wonder whether any of this is to be taken seriously or if it should simply be understood as more entries into his growing library of provocative utterances. Certainly, media and political analysts have largely ignored his denuclearization talk. And inasmuch as Trump is guided more by "obsessions and grievances" than by an actual agenda,² we could at least hope that his "denuclearization" interest blossoms into a full-blown obsession. The Arms Control Association in Washington, a leading arms control think tank, says the repeated references to denuclearization show it "is not a passing interest."³

Denuclearization an enduring and formal objective

A champion of chaos and focused on disruption, President Trump's denuclearization statements are surprisingly orthodox – certainly familiar to arms control and disarmament advocates. They align fully with the formal and long-standing objectives, honored more in the breach than in compliance, of the United States as part of the broader international community. What is well-known within the nuclear disarmament community is not common knowledge to the public at large – namely, that the international community has since World War II formally agreed that in the long-term nuclear weapons are a threat to human survival, not a means to security, and that they must ultimately be eliminated from state arsenals.

For those not familiar with that stance, that was the focus of the first resolution of the UN General Assembly in 1946,⁴ but its worth also recalling more recent reminders of the persistence of that global norm:

- In 2022, the five nuclear-armed permanent members of the United Nations Security Council (China, France, Russia, United Kingdom, United States – the P5) issued a joint statement declaring: “We affirm that a nuclear war cannot be won and must never be fought.”⁵ U.S. President Ronald Reagan and Soviet Leader Mikhail Gorbachev made the same declaration in 1985.⁶
- Also in 2022, NATO adopted a new Strategic Concept (still in force) which states that the Alliance seeks to create a security environment conducive to “a world without nuclear weapons, consistent with the goals of the Nuclear Non-Proliferation Treaty” (NPT, Paragraph 33⁷ – a Treaty that includes the P5).
- In 2010, the United States joined other nuclear-armed states and the 191 states parties to the NPT (including the P5) in reaffirming their “unequivocal undertaking to accomplish, in accordance with the principle of irreversibility, the total elimination of their nuclear arsenals...” (Paragraph 79).⁸

The Iron Dome and Its Implications

Despite this historical consensus, it is obvious that ongoing political and military machinations have continued to erect and maintain multiple roadblocks to nuclear disarmament – one prominent and currently relevant example being strategic missile defence (the main battery of interceptors and related radars being in Alaska in the Arctic) – and now the Trump "Iron Dome"⁹ ambition is destined to be a chief roadblock to the Trump denuclearization talk (however serious that talk may or may not be).

Advertised as the “next-generation missile defense shield,” the Iron Dome, now dubbed the "Golden Dome,"¹⁰ essentially revives a version of the Reagan-era Strategic Defense Initiative (SDI), more commonly known as "Star Wars," announced in 1983.¹¹ The Arms Control Association has just released a detailed and informative briefing on the "Golden Dome."¹²

The new iteration of strategic missile defence in the form of the Golden Dome is every bit as ambitious (and just as unrealistic) as was Reagan’s Star Wars. The Dome aims not only to protect America from any nuclear attack but also from conventional missiles, including hypersonic and cruise (air- or sea-launched), and aircraft attacks. A particularly controversial element, then as now, is the prominent inclusion of space-based weapons, including warhead interceptors – propositions that are not only controversial but are met with much scientific skepticism.

The Pentagon has demonstrated the capability to intercept a nuclear warhead in space by maneuvering another warhead (non-explosive) into its path and destroying it on impact. However, capability does not equate to capacity. While there is a demonstrated capability (under controlled conditions) to intercept a particular incoming warhead and to prevent it from reaching the American homeland, there is no capacity to intercept all attacking missiles in wartime conditions. The mission to protect the homeland from all nuclear warheads that might be sent its way is simply impossible.

The current, post-SDI, missile defense system is estimated to have only a slightly better than 50% success rate¹³ for interception under controlled conditions. It is aimed only at a possible limited North Korean attack, and even for that mission it is far from a sure defence. It is not remotely capable of credibly challenging Russian and Chinese arsenals, and even if a “Golden” system miraculously achieved a 90% success rate for interceptions under warfare conditions, it would still be a spectacular failure. Even if a “mere” dozen or so warheads of a mass assault got through and were detonated on US soil, it would obviously be catastrophic, to understate the devastation that would result.

The key point, and implication for arms control, is that as long as protection against nuclear attack is less than comprehensive, the obvious response of adversaries will simply be to expand their nuclear arsenals of offensive systems to ensure that they will always have the capacity for an attack that can overwhelm the defences in sufficient numbers to inflict devastating harm.

And therein lies the political challenge that the US should be acknowledging. Just the pursuit of more effective defences against strategic nuclear missiles, politically attractive for obvious reasons, incentivizes adversaries to increase the number of offensive weapons as a hedge against possible technical improvements or a surge in defences – thus guaranteeing arms racing, with arms control pushed aside as adversaries seek to increase their nuclear arsenals to ensure their deterrent capabilities remain intact. The Americans would inevitably respond in kind to such increases – thus repeating the cycle of escalation that has long been a fundamental barrier to disarmament.

Reagan was the last U.S. president to seriously explore eliminating the American nuclear arsenal¹⁴ (President Obama clearly supported that objective and worked at nuclear disarmament but never made overt or direct gestures towards total elimination). At the 1986 Reykjavik Summit, Reagan and Gorbachev seriously considered the elimination of their nuclear weapons, but strategic missile defence emerged as a major stumbling block. Ironically, just as Trump's denuclearization ideas parallel the brief Reagan/Gorbachev flirtation with abolition, so too does the Trump Golden Dome mimic Reagan's SDI – with the Dome also destined to scuttle any current or potential bold disarmament ambition.

Both Russia and China have made it clear that U.S. missile defence initiatives will only fuel the nuclear arms race. This concern was explicitly acknowledged in the New START Treaty of 2010, which recognized the interrelationship between offensive and defensive strategic arms. Until now, U.S. policy has deliberately limited missile defense systems to threats from rogue states such as North Korea and Iran, rather than targeting Russia or China. The new Iron Dome initiative shifts that policy significantly to include peer adversaries, further destabilizing nuclear deterrence, still without any chance of protecting the American homeland. China has already responded to the existing US missile defence system with a major expansion of its nuclear arsenal and both Russia and China have turned to new technologies like hypersonic missiles to get around defences. And any offensive system is much less expensive to mount than the defensive systems that try to stop them.¹⁵

While realists give the Dome virtually no chance of succeeding in its mission to liberate the American population from the nuclear sword of Damocles, it promises to be an unmitigated success in dashing prospects for the denuclearization that President Trump seeks, or for any renewed arms control/disarmament agreements.

As noted, the Dome is also meant to protect the American homeland from conventional missile – e.g. hypersonic and cruise – attack. That is also a NORAD modernization objective and it is an even more daunting challenge than strategic missile defence. A retired US Rear Admiral says plainly, “you're not going to be able to defend [all of the US homeland].”¹⁶ Each of the interceptor installations of the Israeli Iron Dome defence system defends a specific location, but covers only a small area, meaning virtually a limitless number of installations would be needed across American territory in order to protect key military and civilian infrastructure facilities.

Conclusion: The tantalizing dream of disarmament

President Reagan learned that his vision of using technology to render the U.S. homeland immune from nuclear attack was only a tantalizing dream¹⁷ -- one that could not be realized. The conclusions of the expert community are summarized by former US Democratic congressman John Tierney, who held years of hearings on ballistic missile defense: The Golden Dome “doesn't make any sense,” strategically, technically, and economically.¹⁸

In these early days of his disruptive second term, President Trump's denuclearization musings appear to recognize that immunity from nuclear attack can only come from universal nuclear disarmament. His comments at Davos suggest he too is tempted by a tantalizing dream: "We want to see if we can denuclearize, and I think that's very possible." The Arms Control Association concludes that "the clearest path forward" toward a constructive spillover from Trump's denuclearization sentiments would be to pursue an agreement with Russia "to maintain New START limits until such time as a fuller arms control treaty can be negotiated."¹⁹

Denuclearization could do what the Dome cannot – build a durable solution to the nuclear threat. Yet, neither America's allies nor its adversaries—nor even states supporting the Treaty on the Prohibition of Nuclear Weapons—have publicly stepped forward to encourage Trump's denuclearization dream to morph into action. Perhaps it's time for a coalition of the willing to organize to add urgency and mobilize support for a serious denuclearization mission.

End Notes

¹ Three brief commentaries on nuclear disarmament by President Trump:

"Tremendous amounts of money are being spent on nuclear weapons, and the destructive capability is something that we don't even want to talk about today, because you don't want to hear it. It's too depressing. So, we want to see if we can denuclearize, and I think that's very possible. And I can tell you that President Putin wanted to do it. He and I wanted to do it. We had a good conversation with China. They would have been involved, and that would have been an unbelievable thing for the planet, and I hope it can be started up again."

Remarks By President Trump at the World Economic Forum January 23/25.

<https://www.whitehouse.gov/remarks/2025/01/remarks-by-president-trump-at-the-world-economic-forum/>

"There is no reason for us to be building brand new nuclear weapons. We already have so many, you could destroy the world 50 times over, 100 times over. And here we are building new weapons. And [the Russians are] building new nuclear weapons. And China's trying to catch up."

Andre Stanton, "Donald Trump makes Major Nuclear Weapons Announcement," Newsweek, Februar 13, 2025.

<https://www.newsweek.com/donald-trump-nuclear-weapons-announcement-2030823>

"It would be great if everybody would get rid of their nuclear weapons. I know Russia and the U.S. have by far the most. China will have an equal amount within 4-5 years. It would be great if we could all denuclearize because the power of nuclear weapons is crazy."

Gabe Whisnant, "Donald Trump Wants to 'Get Rid' of Nuclear Weapons," Newsweek, March 6, 2025.

<https://www.newsweek.com/donald-trump-wants-get-rid-nuclear-weapons-2040867>

² Thomas L. Friedman, "A Great Unraveling Is Underway," NY Times 11 March 2025.

https://www.nytimes.com/2025/03/11/opinion/trump-economy-tariffs.html?campaign_id=39&emc=edit_ty_20250315&instance_id=150056&nl=opinion-today®i_id=76906357&segment_id=193527&user_id=0265940166eaa8053d51e1037b50b4fd

³ "Trump and Putin Talk in the Shadow of New START," Arms Control Association, 20 March 2025. armscontrol.org.

⁴ UN General Assembly Resolution A/RES/1(1) - Establishment of a Commission to Deal with the Problems Raised by the Discovery of Atomic Energy. The terms of Reference in Para 5(c) include "...the elimination from national armament of atomic weapons..." [file:///C:/Users/User/Downloads/A_RES_1\(I\)-EN.pdf](file:///C:/Users/User/Downloads/A_RES_1(I)-EN.pdf)

⁵ Joint statement by the leaders of the five nuclear-weapon States on preventing nuclear war and avoiding arms races, Paris, 3 January 2022. <https://uk.ambafrance.org/A-nuclear-war-cannot-be-won-and-must-never-be>

[fought#:~:text=We%20affirm%20that%20a%20nuclear%20war%20cannot%20be,serve%20defensive%20purposes%2C%20deter%20aggression%2C%20and%20prevent%20war](#)

⁶ Joint Soviet-United States Statement on the Summit Meeting in Geneva. 21 November 1985.

<https://www.reaganlibrary.gov/archives/speech/joint-soviet-united-states-statement-summit-meeting-geneva>

⁷ https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf

⁸ 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Final Document. https://nonproliferation.org/wp-content/uploads/2015/04/2010_fd_part_i.pdf

⁹ "The Iron Dome For America," Executive Order, 27 January 2025. The White House.

<https://www.whitehouse.gov/presidential-actions/2025/01/the-iron-dome-for-america/>

¹⁰ Jen Judson, "Iron Dome for America gets a golden makeover," *DefenseNews*, 25 February 2025.

<https://www.defensenews.com/pentagon/2025/02/25/iron-dome-for-america-gets-a-golden-makeover/>

Jen Judson <https://thedebrief.org/americas-new-golden-dome-what-to-know-about-the-next-gen-missile-defense-system/>

¹¹ <https://ahf.nuclearmuseum.org/ahf/history/strategic-defense-initiative-sdi/>

¹² "Trump's Misguided 'Golden Dome' Gambit," *Issue Briefs*, Volume 17, Issue 2, 25 March 2025. [Trump's Misguided "Golden Dome" Gambit | Arms Control Association](#)

¹³ The Missile Defense Agency reported in 2019 that of 18 flight tests, 10 were successful intercepts. Another test in 2023 was judged by the MDA to be a success. It is broadly reported that these tests are carried out under controlled conditions and obviously not under the rather more challenging conditions of actual attack.

"Ballistic Missile Defense Intercept Flight Test Record (as of December 2018)," Missile Defense Agency *Fact Sheet*, 17 January 2019.

<https://www.defense.gov/Portals/1/Interactive/2018/11-2019-Missile-Defense-Review/ballistic-missile-defense-intercept-flight-test-record-UPDATED.pdf>

Jen Judson, "Homeland defense interceptor defeats ballistic missile in test," *DefenseNews*, 11 December 2023.

<https://www.defensenews.com/land/2023/12/11/homeland-defense-interceptor-defeats-ballistic-missile-in-test/>

¹⁴ Jason Saltoun-Ebin, "Rethinking Reagan: SDI and the Elimination of Nuclear Weapons," *History News Network*.

<https://www.historynewsnetwork.org/article/rethinking-reagan-sdi-and-the-elimination-of-nucle>

¹⁵ Zachary Cohen and Oren Liebrmann, "Golden Dome is the Trump administration's attempt to rebrand vague plans for developing a missile defense system akin to Israel's Iron Dome," *CNN*, 22 March 2025.

¹⁶ *CNN*, 22 March 2025.

¹⁷ Jessica West, "Canada should resist Trump's 'Iron Dome' fantasy," *The Hill Times*, 27 February 2025.

<https://www.hilltimes.com/story/2025/02/17/canada-should-resist-trumps-iron-dome-fantasy/450993/>

¹⁸ *CNN*, 22 March 2025.

¹⁹ "Trump and Putin Talk in the Shadow of New START," *Arms Control Association*, 20 March 2025.

<https://www.armscontrol.org/>