



Nuclear-Armed Cruise Missiles Should be Banned

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Summary

The United States, Russia and other nuclear weapons possessors have embarked on a very dangerous and costly arms race that is seriously increasing the risk of nuclear war. Creative new approaches are needed to put the brakes on this arms race, and restore movement in the direction of enhanced strategic stability, decreased reliance on nuclear weapons, and nuclear arms control and disarmament. Just as we must defuse this new Cold War, we must think beyond tired Cold War arms control frameworks while still drawing on the positive lessons learned from them. Eliminating all nuclear-armed cruise missiles of any range would be an extremely important step for re-launching global nuclear arms control efforts.

1. The aspiration shared by Ronald Reagan, Mikhail Gorbachev, Barack Obama and others of a world free of nuclear weapons seems hopelessly remote, but actual steps towards that goal are both achievable and urgent. It is now clear that the United States and Russia have neither the will nor ability on their own to negotiate further nuclear arms caps and reductions. European and Asian countries have an opportunity and an obligation to help fill this leadership void.

2. Indeed, both Russian and American officials have called for expanding the number of countries engaged in nuclear arms control beyond the Cold War duo. For example, Russia has specifically complained that the Intermediate Range Nuclear Forces (INF) Treaty is “unfair” because it only constrains Russia and the United States. For the United States, the concept was voiced well in December 2017 by then-Special Assistant to the President and Senior Director for WMD and Counterproliferation at the National Security Council:

Most critically, the strategic arms control game needs to expand beyond the United States and Russia. One could envision the types of arms control measures we used to stabilize our nuclear competition in the early days of the Cold War to be particularly applicable to stabilize regional competition between India and Pakistan, for instance. Similarly, should Russia return to compliance with the INF Treaty, one could envision a real need to expand the prohibition of dangerous and destabilizing intermediate-range missile systems globally, or to develop

new and different mechanisms for reducing the dangers posed by such systems.¹

Nuclear Cruise Control

3. At a NATO High-Level Group meeting in Brussels I co-chaired in 2010, a senior Norwegian defence official described a new approach to nuclear arms control that would focus less on just numbers and more on eliminating an entire class of nuclear weapons. In part due to Norway's concern about Russia's "tactical" nuclear weapons, which sure look strategic if you live in Oslo, he proposed a global effort to cap and eliminate all nuclear-armed cruise missiles. The only nuclear arms control and disarmament agreement in history to eliminate an entire class of nuclear weapons was the INF Treaty that Reagan and Gorbachev signed in 1987. Germany and other European countries, which did not like the prospect of these tactical nuclear weapons being used on or near their territory, helped drive the effort that resulted in the historic treaty. Through it, both the United States and Russia eliminated their nuclear-armed ground-launched cruise missiles.

4. Fast forward thirty years, and we are yet again embarked on a new nuclear arms race featuring low-yield nuclear weapons designed to be more usable in Europe, and in East and South Asia. Nuclear players like China, India, France and Pakistan therefore need to be part of the equation. Some of these countries' own nuclear investments make this clear. Pakistan in particular is following the 1960s era NATO policy of "full spectrum" nuclear weapons, including development and testing of so-called battlefield and cruise missile-launched nuclear weapons.²

5. In 2015, former Secretary of Defense Bill Perry and I carried forward the Norwegian defence official's idea and called publicly in a *Washington Post* op-ed for the Obama Admin-

istration to cancel a new US air-launched nuclear cruise missile research project, the Long Range Stand-off Weapon and lead a global effort to cap and eliminate all nuclear-armed cruise missiles of any range.³

6. Our reasons were quite simple. Nuclear-armed cruise missiles are the most dangerous and destabilizing class of nuclear weapon. The conventional and nuclear variants are indistinguishable, which could lead a country with one flying towards it to mistakenly conclude that it is under nuclear attack. They can be launched without warning, are nearly impossible to detect and defend against, and are ideal for decapitating first strikes against nuclear command and control facilities. They cannot be recalled. Their failure mode is to land intact; a weapon that does not reach its target may still hold a retrievable nuclear warhead. Each B-52 bomber can carry up to twenty of them, so just thirty bombers could launch six hundred of them simultaneously. Many have low-yield settings suitable for so-called limited nuclear war fighting.

7. The mission they were originally conceived for – overcoming air defences – can now be accomplished with precise, conventional-only cruise missiles like the US Air Force's Joint Air-to-Surface Stand-off Missile, which has an extended range variant. Also, the B-61-12 gravity bomb, to be flown on the current B-2 and planned B-21 stealth bombers, will obviate the U.S. requirement for either a "stand-off" nuclear cruise missile like the Long Range Stand-off Weapon or a nuclear armed B-52 bomber. Since another original purpose of the US Air-Launched Cruise Missile was to keep the big, slow and vulnerable B-52 bomber in the nuclear mission until it was replaced by more effective and survivable stealth bombers, in a few years when the B-21 Raider bomber is deployed it will

¹ Dr Christopher A. Ford, "The Future of Arms Control, Non-proliferation, and Disarmament," European Union Non-Proliferation Conference, Brussels, Belgium, 13 December 2017.

² Ankit Panda, "Pakistan Conducts Second Test of Babur-3

Nuclear-Capable Submarine-Launched Cruise Missile," *The Diplomat*, 1 April 2018.

³ Bill Perry and Andy Weber, "Mr President, Kill the New Cruise Missile," *The Washington Post*, 15 October 2015.

finally be time to take the B-52 off of its nuclear status.⁴

8. Clearly any path to nuclear disarmament, as required by the Nuclear Non-Proliferation Treaty, must include way stations. Senator Sam Nunn has wisely noted that a world without nuclear weapons is like the summit of Mt. Everest. It is clouded in and we cannot even see it, but we can get there by establishing a series of base camps. The last nuclear weapons likely to be eliminated are the most survivable, credible, big strategic systems like long-range submarine and land-mobile long-range ballistic missiles. Therefore, the base camps will logically first eliminate the most destabilizing nuclear weapons like sea-, air- and ground-launched nuclear cruise missiles. The “cruise control” base camp should also capture the previously unforeseen nuclear drones, including Russia’s recently announced undersea nuclear drone.⁵

The Global Landscape

9. Since launching a “cruise control” effort in 2015 with partners like UK Royal Navy Admiral (ret.) John Gower⁶ and Christine Parthemore of the Council on Strategic Risks,⁷ I have been engaging governments, Track II dialogues and think tanks in North America, Europe and Asia to promote the need for this new and stabilizing arms control concept. In 2016, the governments of Sweden and Switzerland presented a cruise missile arms control paper to the UN Open-Ended Working Group in Geneva and held a side event on this topic at the UN First Committee in New York in October 2016. The United Nations Institute for Disarmament Research and other

fora have since carried forward the concept with more in-depth study and discussion.

10. Most surprising has been the positive reception the proposal received during private meetings with senior government defence and foreign affairs officials in capitals, including Tokyo, Seoul, Beijing, Berlin, London, The Hague, Oslo, Helsinki, Almaty and Paris. It was endorsed by former government officials and nongovernmental Japanese, Korean, Chinese, Australian and American nuclear experts convened by Governor Hidehiko Yuzaki at the Hiroshima Roundtable in 2016,⁸ the German-Russia-US Deep Cuts Commission,⁹ and at a 2017 meeting convened in London by the Norwegian Institute for International Affairs, the Toda Peace Institute and the University of Otago (New Zealand).

Europe

11. In spite of the awful state of US–Russia bilateral relations, every day the New START Treaty is being quietly implemented by experts and inspectors from the two countries. Indeed, the major milestone of entry into force of the Central Treaty Limits was reached without a hitch on 5 February 2018. Although the treaty expires in 2021, Russia has reportedly proposed extending it as allowed by the treaty to 2026. Both countries should agree to the extension without delay.

12. Unfortunately, the vital INF Treaty is faring less well. Russia has reportedly tested and deployed a treaty-violating ground-launched cruise missile, and has accused the US of deploying a cruise-missile-capable launch tube as part of its European Aegis ashore missile defense

⁴ Steven Miller, “Nuclear Battleground: Debating the 2018 Nuclear Posture Review,” *Policy Brief* No. 13 from the Toda Peace Institute (May 2018).

⁵ Vladimir Putin, “Presidential Address to the Federal Assembly,” 1 March 2018, <http://en.kremlin.ru/events/president/news/56957>.

⁶ For resources regarding nuclear-armed cruise missiles, see: <https://nuclearcruisecontrol.com/>.

⁷ Christine Parthemore, “The ambiguity challenge: why the world needs a multilateral nuclear cruise missile agreement,” *Bulletin of the Atomic Scientists*, 73:3 (2017), pp. 154–58.

⁸ Hiroshima Round Table, “Chairman’s Summary,” August 2016, <https://www.pref.hiroshima.lg.jp/uploaded/attachment/219123.pdf>.

⁹ The Deep Cuts Commission, “Back from the Brink: Toward Restraint and Dialogue between Russia and the West,” June 2016, http://deepcuts.org/images/PDF/Third_Report_of_the_Deep_Cuts_Commission_English.pdf.

system.¹⁰ Despite two meetings of the INF Special Consultative Commission, the INF Treaty is on life support and the US has refused to extend New START until Russia ends its INF violation. Resolving the INF compliance issues should be relatively easy once Presidents Donald Trump and Vladimir Putin make it a priority and empower technical experts to do so.

13. Remembering that INF is first and foremost a treaty designed to enhance nuclear stability and European security, there is definitely a role for countries like Germany, Finland and INF member state Kazakhstan to encourage and perhaps broker a meeting between Moscow and Washington to resolve INF compliance concerns. What has been lacking is leadership-level dialogue and political will. If Trump can sit down for a face-to-face meeting with North Korean leader Kim Jong-un, certainly he should restore regular meetings to discuss pressing nuclear weapons issues with Putin.

14. The United Kingdom, as a matter of policy, decided against pursuit of nuclear-armed cruise missiles several years ago. Instead, its deterrent relies solely on strategic, submarine-launched ballistic missiles. In the UK Deterrence Alternatives Review, Prime Minister David Cameron explicitly considered and rejected a nuclear-armed sea-launched cruise missile. As Defence Secretary Sir Philip Hammond explained:

A cruise-based deterrent would carry significant risk of miscalculation and unintended escalation. At the point of firing, other states could have no way of knowing whether we had launched a conventional cruise missile or one with a nuclear warhead. Such uncertainty could risk triggering a nuclear war at a time of tension.¹¹

15. France has deployed a new nuclear-armed air-launched cruise missile, although the backbone of its deterrent is provided by ballistic missile submarines. If Russia were to agree to cap and eliminate its cruise missiles as part of a

global agreement, I believe France would forego the costly replacement of its air-launched cruise missile.

16. Although European NATO members are reluctant to publicly oppose President Trump's two new nuclear cruise missiles, the Long Range Stand-off Weapon and a new sea-launched nuclear cruise missile announced in the Nuclear Posture Review (NPR) released in early 2018, they are increasingly supportive of using them as bargaining chips in a global effort to get all countries, especially Russia, to eliminate them. The reasons have not changed much since the 1980s: they do not want these usable nuclear weapons exploding in a limited nuclear war on European territory.

Asia

17. For similar reasons, US allies in Asia have grave concerns about US plans to deploy a new sea-launched nuclear cruise missile and Long Range Stand-off Weapon-carrying bombers in their territorial waters or air bases. This would make countries like Japan and the Republic of Korea a potential target for Russian or Chinese nuclear weapons. While they are rightly pleased to enjoy the formidable strategic nuclear umbrella of America's second-to-none deterrent force, low-yield tactical nuclear weapons like the two proposed new US cruise missiles are another question. Like Europe, US allies in Asia do not want to host a limited nuclear war with countries such as Russia or China.

18. China, which has not yet deployed nuclear-armed cruise missiles, has to date refused to engage the US in a meaningful nuclear weapons arms control dialogue. Since both the US and Russia have thousands of nuclear weapons each, China has rebuffed efforts to discuss quantitative nuclear arms control until Russian and American nuclear weapons stockpile sizes fall below a thousand. A weapons class discussion about nuclear cruise control, however, would be

¹⁰ Andrew Kramer, "Russia Calls New U.S. Missile Defense System a 'Direct Threat,'" *The New York Times*, 12 May 2016.

¹¹ Philip Hammond, "The alternatives to Trident carry an enormous risk," *The Telegraph*, 3 February 2013.

more attractive to China. First, it would not require China to reduce or eliminate any part of its current nuclear arsenal, but rather to simply agree not to deploy nuclear-armed cruise missiles. In return, China would enhance its second strike capacity, which it feels is severely threatened by US and Russian current and additional planned nuclear cruise missiles. Beijing would also prefer that India forego deployment of nuclear-armed cruise missiles and in return could help engage Pakistan to reverse its current “out of cruise control” path.

Recent Developments

19. Just weeks apart this winter, Putin and Trump recklessly rattled nuclear sabres in annual addresses to their respective nations. Both announced plans to accelerate and deploy new, extremely dangerous and destabilizing nuclear-armed cruise missiles. Putin claims the main motivation is to bypass America’s ever-expanding (in quantity and geography) missile defences. He is right that nuclear cruise missiles are nearly impossible to defend against, but he is wrong to think that missile defences could ever negate Russia’s huge deterrent force. The Trump Administration’s NPR asserts that there is a usable, small nuclear weapons gap with Russia that weakens the credibility of its deterrent. This is an imaginary gap used to justify unneeded new nuclear weapons.

20. Although the NPR also asserts (without supporting evidence) that new, low-yield nuclear weapons are not for nuclear war fighting and will increase the threshold for use, in reality Trump’s new nuclear weapons procurement and posture seem intentionally designed to lower the nuclear weapons use threshold and for fighting a limited nuclear war. Blurring the line between conventional and nuclear warfare is a very bad idea, and we should be doing the

opposite by decreasing reliance on low-yield nuclear weapons.

21. A more optimistic interpretation of the Putin–Trump nuclear buildups is that the existing, newly deployed and planned nuclear cruise missiles (and an underwater drone) are intended for use as bargaining chips in a major new round of nuclear arms control. Indeed, Putin stated after describing all of his new nuclear weapons systems and threatening nuclear retaliation in his annual address to the nation: “There is no need to create more threats to the world. Instead, let us sit down at the negotiation table.”¹²

22. President Trump, in his State of the Union address also left the door open to negotiated reductions: “Perhaps someday in the future there will be a magical moment when the countries of the world will get together to eliminate their nuclear weapons. Unfortunately, we are not there yet, sadly.”¹³

23. This is where countries besides the United States and Russia could play a crucial role. Indeed, both supporters and sceptics of the Ban Treaty should unite to develop a roadmap for the nuclear possessor states to step back from an arms race and pursue together a base camp on the road to a world without nuclear weapons.¹⁴ Capping and eliminating all nuclear-armed cruise missiles of any range would be an extremely important next step.

Recommendations and Next Steps

24. Although nuclear cruise control can and should be pursued in multiple intergovernmental, UN and non-governmental fora, a critical next step would be a meeting of ten to fifteen countries, if possible to include one or more nu-

¹² Vladimir Putin, “Presidential Address to the Federal Assembly,” 1 March 2018, <http://en.kremlin.ru/events/president/news/56957>.

¹³ Rebecca Kheel, “Trump: We must ‘modernize and rebuild’ nuclear arsenal,” *The Hill*, 30 January 2018.

¹⁴ See “The NPT and the Prohibition Treaty: Towards Convergence.” Attachment 2 of the report of a meeting in Seoul

on 22–23 March 2018 organized by the Asia Pacific Leadership Network, the European Leadership Network and the Toda Peace Institute, http://a-pln.org/meetings/meetings_view/Harmonizing_the_NPT_and_the_Nuclear_Ban_Treaty?ckattempt=1.

clear possessor states and at least several umbrella states. This historic arms control dialogue should be hosted by a country with nuclear disarmament leadership experience and moral authority. The objective should be to make a political pledge to work together on a global effort to cap and eliminate all nuclear-armed cruise missiles and drones.

25. A lot of work can be done at the regional and expert level to flesh out individual country positions and concerns, and develop and test a monitoring and verification framework for implementation of global nuclear cruise control. The European and Asia Pacific Leadership Networks and affiliated think tanks are well-positioned to lead outreach to all of the key governments and international organizations. Some very useful sea-launched cruise missile elimination verification work was done in the 1980s,¹⁵ and the INF Treaty mechanisms provide an excellent foundation, but institutional innovation and application of new technologies and tools are required to accomplish this daunting and ambitious – but urgent and achievable – task.

¹⁵ George Lewis, Sally Ride and John Townsend, “Dispelling Myths About Verification of Sea-Launched Cruise Missiles,” Science, 1989; *Verification Technology: Unclassified Version*,

JASON, Mitre Corporation, 1990:
<https://fas.org/irp/agency/dod/jason/verif.pdf>.

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APLN and Toda Peace Institute

The **Asia Pacific Leadership Network (APLN)** comprises around ninety former senior political, diplomatic, military and other opinion leaders from sixteen countries around the region, including nuclear-weapons possessing states China, India and Pakistan. The objective of the group, founded by former Australian Foreign Minister and President Emeritus of the International Crisis Group Gareth Evans, is to inform and energize public opinion, and especially high level policy-makers, to take seriously the very real threats posed by nuclear weapons, and do everything possible to achieve a world in which they are contained, diminished and ultimately eliminated. The co-Convenors are Professors Chung-in Moon and Ramesh Thakur. The Secretariat is located at the East Asia Foundation in Seoul, Republic of Korea. See further www.apln.org.

The **Toda Peace Institute** is an independent, nonpartisan institute committed to advancing a more just and peaceful world through policy-oriented peace research and practice. The Institute commissions evidence-based research, convenes multi-track and multi-disciplinary problem-solving workshops and seminars, and promotes dialogue across ethnic, cultural, religious and political divides. It catalyzes practical, policy-oriented conversations between theoretical experts, practitioners, policymakers and civil society leaders in order to discern innovative and creative solutions to the major problems confronting the world in the twenty-first century (see www.toda.org for more information).

APLN and the Toda Peace Institute are publishing a series of Policy Briefs together in a partnership on a project entitled "Bridging the Gap: Harmonizing the NPT and Ban Treaties." The objective of the project is to link global efforts to protect and strengthen international mechanisms for advancing nuclear non-proliferation and disarmament by harnessing the NPT and the Ban Treaty. A key will be to identify ways to improve cooperation between the 122 countries that voted to adopt the Ban Treaty on the one hand and, on the other, the nuclear-armed states and allies under the nuclear umbrella in the North Atlantic and the Asia Pacific.

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