

Non-Proliferation Concerns

The announcement of the AUKUS partnership and its headline initiative to deliver eight nuclear-powered attack submarines to Australia raised a range of concerns internationally about the implications for the Treaty on the Non-Proliferation of Nuclear Weapons (NPT). This will be the first time that the United States will share nuclear technology with a foreign country since a 1958 mutual defense agreement with the United Kingdom; the United States has not otherwise shared such technology with another state since the NPT went into force in 1970.¹¹

The AUKUS submarine deal would see Australia become the first country to exercise a “loophole” that allows it to remove nuclear material from the inspection system of the International Atomic Energy Agency (IAEA).¹² One concern is how this precedent could be exploited by other non-nuclear weapons states (NNWS) to divert materials from naval reactors and potentially use that material for weapons production.¹³ Another concern is that the AUKUS submarine deal may create a more permissive environment that would embolden other countries to develop their own HEU-fueled nuclear submarines and their own HEU fuel.¹⁴

In recognition of these concerns, the three governments have set out to work in partnership with the IAEA to ensure full compliance with existing standards. In addition, the AUKUS countries announced an 18-month consultation process that will determine the safeguards and non-proliferation measures and how to ensure full compliance with each party’s NPT commitments prior to the construction of the submarines.¹⁵

The Submarine Gap

Another major peripheral issue with the AUKUS partnership is Australia’s looming “submarine gap.” Loosely defined, the submarine gap explains a situation in which Australia finds itself without a relevant submarine capability in large part due to the aging Collins class and the significant time it may take for the AUKUS partnership to deliver its first SSN.

¹¹ Shayan Karbassi, “Legal Mechanisms of AUKUS Explained,” *Lawfare Blog*, September 24, 2021, <https://www.lawfareblog.com/legal-mechanisms-aukus-explained>.

¹² James Acton, “Why the AUKUS Submarine Deal Is Bad for Nonproliferation—And What to Do About It,” Carnegie Endowment for International Peace, September 21, 2021, <https://carnegieendowment.org/2021/09/21/why-aukus-submarine-deal-is-bad-for-nonproliferation-and-what-to-do-about-it-pub-85399>.

¹³ Cathy Moloney, “AUKUS and the Nuclear Non-Proliferation Regime,” *The Interpreter*, September 28, 2021, <https://www.lowyinstitute.org/the-interpreter/aukus-and-nuclear-non-proliferation-regime>.

¹⁴ Trevor Findlay and Frank N. von Hippel, “The Australia-UK-U.S. Submarine Deal,” *Arms Control Today*, Volume 51, Number 9, November 2021, <https://sgs.princeton.edu/sites/default/files/2021-11/vonhippel-2021-aukus.pdf>.

¹⁵ John Carlson, “IAEA Safeguards, the Naval ‘Loophole’ and the AUKUS Proposal,” Vienna Center for Disarmament and Non-Proliferation, February 24, 2022, <https://vcdnp.org/iaea-safeguards-the-naval-loophole-and-the-aukus-proposal/>.

Some experts have argued that Australia already has a significant submarine gap as it has only six Collins-class attack submarines, which can only generate two operational submarines at any one time, with perhaps some surge capability in the most exceptional circumstances. Yet, even with this minimal capability, it was all the way back in 2009 when the Australian Defence White Paper first identified the need to build 12 submarines to replace the Collins class and projected a delivery date from 2025 to 2034.¹⁶ The deal with France's Naval Group was already behind that production timeline when Australia cancelled the deal in September 2021. Now that the AUKUS partnership has Australia starting from scratch, current estimates have the delivery of Australia's first nuclear submarine in the mid-2040s.¹⁷ This means that the Royal Australian Navy must find ways to either extend the life of the six Collins-class submarines, which were expected to begin retirement in the late 2020s, or find some other capability-based solution.¹⁸

The looming specter of the submarine gap has motivated several proposals aimed at helping Australia close this gap sooner. For example, the AUKUS working group in the U.S. Congress has proposed that the U.S. Navy immediately (in 2023) allow Australia's Navy to send officers to train with American sailors and prepare the Australians for eventually getting their own submarines.¹⁹ However, those officers would long be retired by the 2040s, when Australia is expected to deliver its own domestically built submarine. Additionally, there has been some discussion about Australia purchasing U.S.-made Virginia-class attack submarines in the interim to help mitigate this gap and help Australia develop its own infrastructure for building and maintaining nuclear-powered submarines.²⁰ Marcus Hellyer of the Australian Strategic Policy Institute (ASPI) has raised the additional options of acquiring a conventional submarine, such as the Swedish A26, or a non-submarine option that uses other technology and domains to produce similar effects, such as B-21 bombers and specialized munitions.²¹

¹⁶ Marcus Hellyer, "Australia Already Has a Submarine Capability Gap," *The Strategist*, November 5, 2021, <https://www.aspistrategist.org.au/australia-already-has-a-submarine-capability-gap/>.

¹⁷ Anthony Galloway, "Expect Submarine Delays, Marles Says, as He Plans for Defence Capability Gap," *Sydney Morning Herald*, June 6, 2022, <https://www.smh.com.au/politics/federal/expect-submarine-delays-marles-says-as-he-plans-for-defence-capability-gap-20220606-p5argk.html>.

¹⁸ Department of Defence, "2016 Defence White Paper" (Australian Government, 2016), <https://www.defence.gov.au/about/publications/2016-defence-white-paper>. p 91

¹⁹ Mallory Shelbourne, "New AUKUS Caucus Bill Calls for U.S.-Australia Sub Training Pipeline," *USNI News*, n.d., <https://news.usni.org/2022/06/15/new-aukus-caucus-bill-calls-for-u-s-australia-sub-training-pipeline>.

²⁰ Joseph Trevithick and Thomas Newdick, "Australia Was Poised To Get Virginia Class Nuclear Submarines Says Former Defense Minister," *The War Zone*, June 10, 2022, <https://www.thedrive.com/the-war-zone/australia-was-poised-to-get-virginia-class-nuclear-submarines-says-former-defense-minister>.

²¹ Marcus Hellyer and Andrew Nicholls, "How to Bridge the Capability Gap in Australia's Transition to Nuclear-Powered Submarines," *The Strategist*, July 21, 2022, <https://www.aspistrategist.org.au/how-to-bridge-the-capability-gap-in-australias-transition-to-nuclear-powered-submarines/>.