

Dollars and Sense: Canadian Patrol Submarines: Complementing or Competing with Continental Defence?

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This past July, Lee Berthiaume of the Canadian Press reported that the Royal Canadian Navy (RCN) had officially stood up a team to start examining a replacement of Canada's *Victoria*-class submarines.¹ The Canadian Patrol Submarine Project will examine options for replacing the submarines and provide information for informed decision-making about whether Canada will replace the *Victoria*-class boats with a new fleet – something that has yet to be determined. This is welcome news, if long overdue, and comes at a time when strategic circumstances warrant that Canada at least give very serious consideration to replacing its submarine fleet. Around the world, submarines are proliferating widely, especially in the waters of the Indo-Asia-Pacific region.² If Canada wants to remain fully internationally engaged in the maritime domain in the Pacific and elsewhere, it needs to understand what is happening under the water. Closer to home, there is an imperative to contribute to continental defence and help deliver on Canadian and American commitments to make new investments in situational awareness “in the northern and maritime approaches to the continent” including a network of sensors from “sea floor to outer space.”³

And yet, it is unclear to what extent a future Canadian Patrol Submarine will fit into the investments made to improve continental defence situational awareness. Answering that question, which will presumably be part of the Canadian Patrol Submarine Project team's remit, may go a long way towards determining whether a future government decides to replace the existing fleet. On the literal eve of the 2021 election, Canada and the United States issued a joint statement about NORAD modernization. In addition to reaffirming the importance of improving the defence of the North American continent, it identified “Priority areas for new investments” that spanned “Situational awareness, especially in the northern and maritime approaches to the continent; Modernized command and control systems; Capabilities to deter and, if necessary, defeat evolving aerospace threats to North America; Research, Development, and Innovation.”⁴

The joint statement follows on the heels of the “Roadmap for Canada-US Cooperation”⁵ released in February 2021 by President Joe Biden and Prime Minister Justin Trudeau. The statement makes a clear expression of commitment to

a broad array of investments identified as necessary for improved continental defence, and not just a narrow focus on replacing the North Warning System series of early warning radars, which had emerged as a focal point for some discussions. Rather, as was made clear, a whole host of other investments has been identified, including those “to complement and eventually replace the North Warning System with more advanced technological solutions as soon as possible.”⁶

Canada's commitment to a much broader set of investments to enhance the defence of North America rather than a narrower commitment to replace the North Warning System will have significant consequences for any other potential future defence investment. While \$11 billion (US) has been circulated as the potential cost of the North



HMCS Windsor sails off Nova Scotia during Exercise Cutlass Fury 21 on 9 September 2021.

Credit: Capt Trevor Ackland, Canadian Armed Forces



North Warning Site BAF-3 on Brevoort Island, Nunavut, is pictured in this undated photo. It was established in October 1988.

Warning System replacement,⁷ the much broader set of investments to which Canada has committed will likely push up dramatically the potential range of investment costs the Department of National Defence and the Canadian Armed Forces put before Cabinet. Given the wide range of other investment priorities highlighted, the \$11 billion for North Warning System renewal will probably represent the lower bound of that range, with somewhere north of \$100 billion a plausible upper range. To put that in perspective, depending on what Cabinet decides to do and how much, if any, of the tab the Americans pick up, future continental defence investments could exceed the \$62.3 billion in new money over 20 years the government pledged in *Strong, Secure, Engaged* just four years ago.⁸

This leads back to the question of whether new submarines may be part of that enhancement of continental defence, or a separate discussion entirely. As has been well noted elsewhere, submarines are expensive,⁹ and the general consensus is that Canada should expect to pay something like \$5 billion for each boat.¹⁰ Given Canada's approach to budgeting for large projects, in which the acquisition costs of an asset represent 50–60% of the project budget required to obtain them, Canadians can expect something on the order of \$10 billion budgeted to buy each new sub. Even if all that is considered is a one-for-one replacement of the current four submarines (and we have witnessed over the last decade the significant availability problems that can arise with such a small fleet), replacing the submarines will be seriously expensive, at a time when National Defence is in the process of generating options for improving the defence of North America with their own, immense, costs.

One thing working in the RCN's favour at the moment from a fiscal (but not an operational capability) point of view is that the bill for such an investment would not come due for likely another 20 years at least. Given the complexity of the capability, inevitable examination of the

options of domestic construction, and unique Canadian capability demands that are likely to stretch both the limits of non-nuclear propulsion plants and the practicalities of otherwise Canadianizing someone else's design, no one should expect this project to deliver any new capability until the 2040s. So the bill will not even start coming due for another generation.

Having said that, given the massive sums involved, and the equally massive sums already committed to new naval fleets, serious consideration should be given to the role a new fleet of submarines could play in continental defence. Inexorably, the Canadian Armed Forces will want assets with 'away game' capabilities, as is the case with practically every other weapons system in the Canadian inventory. But given the current focus on continental defence, and its competing investment, the RCN should think long and hard about how new submarines can help keep Canada strong at home and secure in North America before focusing on how they can be engaged in foreign waters. 🇨🇦

Notes

1. Lee Berthiaume, "Navy Kicks off Long-anticipated Push to Replace Canada's Beleaguered Submarine Fleet," CBC News, 14 July 2021.
2. Mohamed Razzak, "Submarine Arms Proliferation," *New Age*, 3 March 2021.
3. Canada, Department of National Defence, Canadian Armed Forces, "Joint Statement on NORAD Modernization," 14 August 2021.
4. *Ibid.*
5. Office of the Prime Minister of Canada Justin Trudeau, "Roadmap for a Renewed U.S.-Canada Partnership," 23 February 2021.
6. Canada, "Joint Statement on NORAD Modernization."
7. Murray Brewster, "The Golden Silence over NORAD Renewal and the Voices Who Want to Shatter It," CBC News, 17 March 2021.
8. Canada, Department of National Defence, Canadian Armed Forces, *Strong, Secure, Engaged: Canada's Defence Policy*, Ottawa, 2017, p. 43.
9. See Jeff Collins, "Towards a Renewed Canadian Submarine Capability," Niobe Papers, No 4, Naval Association of Canada, July 2019.
10. Confidential discussions with industry and government officials, July 2021.

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