

## Should Canada Join the Golden Dome?

*Policy Forum Politique* is a new publication format that aims to stimulate debate by presenting a wide range of expert opinion on a topic of national security significance to Canada. For this inaugural edition, we ask four experts for their perspectives on Canada's potential participation in the Golden Dome, a major multi-layered missile defence project that the Trump administration proposed earlier this year.



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Canada's decision to join the Golden Dome project should be conditional on if and only if Ottawa is able to get binational governance terms that go beyond providing sensor and warning data. If secured, this deal would likely increase the [“defense against help”](#) effect of NORAD by strengthening Canadian commitment to continental defense north of the 49<sup>th</sup> parallel, and especially over the Arctic, as well as increase sovereign control on intercepts, from ballistic to hypersonic missiles, over Canadian territory. Moreover, it would avoid [the ‘asymmetrical participation’](#) that the Bush administration demanded in the 2005 missile defense negotiations that had discouraged Canada's involvement.

Given how unpopular missile defense and space-based weapons have historically been in Canada, negotiating an exit clause would be crucial should the United States develop any future space-deployed missiles doctrine that goes counter to Canadian policies. Canadian involvement, therefore, would be based on a doctrine where intercepts do not come from missiles located in space as these could technically be used offensively as well.

One area of negotiation could involve moving missile defence command responsibility from the US Northern Command (USNORTHCOM) to NORAD itself. That way, intercepts over Canadian territory requires a Canadian key, much like the dual-key arrangements used by U.S. allies did with respect to forward deployed U.S.-owned nuclear weapons in the Cold War. Doing so would require the two countries to identify the binational command process as well as agree on the use and interpretation of incoming sensor data. Canada should not simply be consulted. It would play an integral part in the process.

Policy-wise, Canada should provisionally join the initial phases of the Golden Dome project, the phases having to do with sensors and data, and as a mean to influence the architecture of the project. It should only commit investments for missile interceptors, and the major part of the price tag, after Ottawa can secure a binational command and control infrastructure over Canadian territory, access to the algorithm that will power the backend of the system, and a say in cost-control in the future.



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Due to its participation in NORAD, Canada is already engaged in the detection of air-breathing and ballistic missile threats to North America, and its control mission provides assets to defeat fixed wing and cruise missile attacks. Accordingly, given the status quo, Canada would be part of Golden Dome whether formally included or not. Given the threats posed by missiles, Canada needs its own integrated air and missile defence (IAMD) architecture coordinated with US and future NATO systems.

The reasons are two-fold. First, because of Canada's geography and how the fastest avenue of approach to hit U.S.-based targets is over Canada's Arctic, the North Warning System (a series of short and long-range radar systems) and future over-the-horizon radar systems (i.e., Arctic and Polar variants) will provide essential domain awareness data.

Second, because of NORAD's three missions sets - aerospace warning and control and maritime warning - NORAD is responsible for detecting and defeating air threats to North America that include fighters, bombers, cruise missiles (whether air or sea launched), and intercontinental cruise missiles. What NORAD is not mandated to do is defeat incoming ballistic missiles. It struggles to deal with certain types of advanced uncrewed aerial systems given current sensors. Canada's 'no' in 2005 to participate in the U.S. Ground-Based Midcourse Missile Defense System means that NORAD warns of the incoming ballistic missiles but has no say or role to play in their defeat. This decision-making authority rests with USNORTHCOM.

The threat environment has forced Canada to rethink its future defence needs. Canada needs to defend its critical civilian and defence infrastructure and that requires IAMD. Space-based interceptors are a bridge too far but there are many parts of Golden Dome and future NATO systems in which Canada will and should participate. The advantage of allies is that sensors and systems they host far from Canada can assist Canada and vice versa. While American and European systems will not specifically focus on Canada without our participation, Canada will need both national capabilities as well as allied assistance.



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There are some bad ideas that, despite all logic, arise periodically. Such an idea is the dream in the United States that an impenetrable shield can be constructed to protect them against any form of missile attack.

President Ronald Reagan embraced the shield concept with his Strategic Defense Initiative. It failed, however, to field a workable ground-based system, let alone a constellation of interceptors in space. Nevertheless, the defence industry was all too willing to spend billions in pursuing this mirage and the politicians were complicit in exempting the program from the usual regulations governing military procurement. At present, President Donald Trump's version of the national shield delusion is "Golden Dome". He claims that it can be created in three years for only \$175 billion—an outrageous pipe dream that will receive the indulgence of major U.S. defence contractors.

Canada should avoid this boondoggle for three reasons. One is its ineffectiveness: the mediocre performance of the existing ground-based system does not inspire confidence, whereas the fantastical space-based system would, by some [estimates](#), require a constellation of 40,000 interceptors. Another is that it would be destabilizing since U.S. adversaries will not allow their retaliatory forces to be negated by a future system that just might generate some technological advantage and can be expected to increase their arsenals of offensive missiles as a hedge. Golden Dome could stymie future efforts to negotiate reductions. Putting interceptors in space would also destroy the hope of preserving it as a non-weaponized environment, something that Canada has championed for decades.

Finally, there are the costs. According to the Congressional Budget [Office](#), just the space-based aspects to defend against a couple of ICBMs would cost north of \$500 billion. Trump has told Canada that participation in the Golden Dome project would cost roughly \$100 billion.

Canada should thus steer clear of the “black hole” that is Golden Dome and stick to our existing plans to contribute to NORAD modernization.



**Gaëlle Rivard Piché | CDA Institute**

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The conversation around Canada's potential participation in the Golden Dome often obscures the most urgent reality: Canada has become increasingly vulnerable to its adversaries. Russian bombers skirting North American airspace are no longer the only concern. Drones, advanced cruise missiles, and hypersonic weapons now threaten both Canadian and U.S. homelands. Challenges in the maritime, space, and cyber domains only further complicate the picture.

In considering whether Canada should join the Golden Dome, one must distinguish between the project's political undertone and the operational imperatives that originally drove the United States to develop a multilayered defence system. [Successive Commanders](#) of [NORAD](#) and [USNORTHCOM](#) have repeatedly warned about the rapid evolution of these threats, not just to the United States but to North America as a whole. Canada has been slow to acknowledge that those dangers directly affect us as well.

The [NORAD mission](#) is limited to aerospace warning, aerospace control, and maritime warning. In the event of a ballistic attack, it is [USNORTHCOM](#), not NORAD, that holds sole responsibility to intercept an incoming missile. Canada does not have an air and missile defence capability, leaving the country at the mercy of our adversaries and the goodwill of the United States. In case of a complex and layered attack against North America, one cannot assume that Washington would allocate its limited missile defence resources to shield Canadian targets.

Integrated air and missile defence is now critical to the defence of Canada and North America. The Golden Dome is one possible avenue. Building a sovereign Canadian air and missile defence system is another. Both options raise critical questions about sheer capacity, cost, technology, command and control, and delivery timelines. Yet, by the very nature of NORAD, any sovereign Canadian system would inevitably be intertwined with U.S. defences. Ultimately, Canada cannot allow national pride to take precedence over national security and defence. Though sovereignty in defence has significant value, it must be weighed against the urgent need to integrate seamlessly with our closest military ally in the face of rapidly evolving threats to the continent.