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Policy Update

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President Barack Obama recently agreed to deploy an additional 14 ground-based interceptors (GBIs) at Fort Greely, Alaska by 2017, in response to growing bellicosity coming from Pyongyang. This would bring the end strength of America's ground-based midcourse defence (GMD) system to 44 GBIs, designed primarily to undertake multiple intercept attempts against missiles from North Korea under the shoot-look-shoot doctrine, with a single-shot capacity against Iranian missiles. In so doing, the United States has shown some willingness to reconsider the value of GMD in protecting North America, even as it moves forward on theatre systems designed to counter shorter-range threats. Secretary of Defense Chuck Hagel has even assented to an environmental assessment of a possible third interceptor site on the East Coast.

Obama's recent plans have also had one unintended consequence – it has reignited debate in this country on whether Canada should finally take part in the GMD system that covers North America, which was effectively closed with Prime Minister Paul Martin's decision against formal participation in 2005. Prime Minister Stephen Harper has little appetite to revisit his predecessor's decision even after achieving a majority Conservative government in 2011, as shown by his refusal to consider a memorandum on possible missile defence options prepared by Ministers of Foreign Affairs and National Defence John Baird and Peter MacKay in the summer of 2012.[1]

Yet this fact may soon change. Soon after Obama's announcement, commentators in this country began to question the wisdom of staying outside of GMD. Former diplomat Colin Robertson, for example, points to North Korea as a principal reason why Canada should now reconsider its decision.[2] Others emphasize how missile defence failed to result in either space weaponization or strategic instability, pointing out how Canadian concerns on this matter were misplaced.[3] Reports even indicate that the United States requested Canada's participation, which was just as quickly denied by the Pentagon. But the government remains coy on this issue, with Peter MacKay stating how Canada's security policies were being "consistently reviewed" and Public Safety Minister Vic Toews calling for a "broader discussion" on missile defence.[4]

Such a discussion is certainly warranted; it has been over ten years since the United States first withdrew from the ABM Treaty and began constructing a continental GMD system. As a result, it is easier to evaluate the consequences of missile defence rather than simply assuming the worst. With luck, this renewed debate would also prove more sophisticated than previous ones. It is at least telling that one recent rejoinder against Canadian participation did not raise the danger of space weaponization, perhaps in recognition that the Pentagon has little appetite for such a massively costly undertaking at this time of fiscal austerity.[5]

That being said, concerns are still being unfairly raised that missile defences could spark a nuclear arms race with China and Russia. Yet such claims seem to take at face value rhetoric on missile defence used by Russia and China to justify their own weapon programs, while also

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[1] Colin Robertson, "North Korea's threats show that Canada needs to be part of U.S. missile defence pact," *Globe and Mail*, 3 April 2013.
[2] Ibid.
[3] Matt Gurney, "It's time for Canada to openly embrace America's missile defence," *National Post*, 22 April 2013.
[4] Lee Berthiaume, "Federal government leaves door open to joining U.S.-led missile defence system," *Postmedia News*, 22 April 2013, http://o.canada.com/2013/04/22/federal-government-leaves-door-open-to-joining-u-s-led-missile-defence-system/.
[5] "Canada and missile defence," *Ceasefire.ca*, 24 April 2013, http://www.ceasefire.ca/?p=15412.

failing to specify how a system disparaged as ineffective and technologically infeasible could possibly trigger such a reaction.[6] Both countries also have ample means to overwhelm a limited defence, whether by expanding their arsenals or instigating other qualitative improvements, including supersonic missiles and manoeuvrable warheads. Such measures can even help stabilize the nuclear balance, and should not be simply viewed as the start of a destabilizing action-reaction phenomenon.

Critics are also overly quick to point to a number of other problems. For example, they often claim that missile defences could provide an incentive for regional powers to pursue nuclear weapons, even though America's vast conventional superiority does much the same. They also imagine that such a capability would only make the United States more prone to undertake military action. Yet this claim exaggerates America's willingness to go to war unprovoked and underplays the potential benefits of defences if the country ever finds itself in a conventional conflict with a limited nuclear power. Importantly, it also contradicts the assertion that rogue states could easily rely on countermeasures and decoys to overcome such defences – though both North Korea and Iran will likely find mastering such technology more difficult than is often realized.[7]

Yet Canadian proponents of missile defence are not without their own shortcomings. Perhaps the strongest case can be found with NORAD. True, the command is no longer in danger of irrelevance, given the need to defend against internal air-breathing threats in the post-9/11 period. But its long-term future is in some doubt, now that NORAD's early warning and attack assessment functions are being used for a missile defence mission officially beyond its purview and under the command of US Northern Command (USNORTHCOM). At the very least, it creates an awkward command and control arrangement, in which Canadian members of NORAD can warn that the continent is under attack but must stand down in any interception – as any decision to intercept a ballistic missile can only be made by US military officials of USNORTHCOM.

Washington has so far been willing to tolerate this situation, but it is unlikely to do so forever. After all, Canada already contributes few assets to NORAD's ability to detect or track ballistic missiles. As a result, even NORAD's role in the early warning and attack assessment mission constitutes a historical and potentially discretionary anachronism – one likely to fall to the wayside as other US early warning and tracking systems separate from NORAD become operational. As a result, NORAD's early warning role will become increasingly "redundant." Even its role in attack assessment will likely prove problematic due to the compressed time requirements of any interception, which creates an incentive to closely link this function more directly with missile defence.[8]

However, it is also important not to overstate this danger. For much of the post-Cold War period, Canadian officials were rightly concerned that the country's refusal to participate in

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[6] Frank Harvey, "The International Politics of National Missile Defence: A Response to the Critics," *International Journal* 55, 4 (2000): esp. 552-554.
[7] Ibid., 558. A good comparison is Great Britain, which spent exorbitant sums (£1 billion) under its secret Chevaline program for decoys, penetration aids, and other countermeasures to allow its Polaris missiles to overcome the Soviet Galosh missile defence system around Moscow. See John Baylis and Kristan Stiddart, "Britain and the Chevaline project: The hidden nuclear programme, 1967-1982," *Journal of Strategic Studies* 26, 4 (2003): 124-155.
[8] James Fergusson, "Shall We Dance? The Missile Defence Decision, NORAD Renewal, and the Future of Canada-US Defence Relations," *Canadian Military Journal* 6, 2 (2005): 20.

missile defence could endanger NORAD itself. Yet the command is unlikely to simply disappear after 9/11. Instead, the danger is much more limited – that NORAD could find itself relegated to a strictly air defence command, with its aerospace role in early warning and attack assessment effectively curtailed. Such an outcome might still be troubling but it is also far from an existential threat.

One should also not assume that Canada's participation in missile defence would be an immediate solution. After all, NORAD must also contend with re-nationalizing efforts on both sides of the border, ones that have little to do with missile defence per se. Both countries have shown a clear preference for "separate, but cooperative defence," exemplified in how USNORTHCOM and Canada Command were stood up in 2002 and 2006, respectively.[9] This trend largely eschews the integrated binationalism embodied in NORAD and promises to make the command even more anomalous in the future. As a result, even if NORAD was more directly involved in missile defence, it is an open question whether such an arrangement would either safeguard the command's aerospace functions or survive in the long-term.

Equally uncertain is what benefits would actually be accrued if Canada was to take part in missile defence. Too frequently, commentators seem to assume that Canada's assent to take part in this initiative would result in immediate advantage. For example, proponents are often eager to suggest NORAD offers Canada a "window into the global, strategic world" and "access and influence opportunities," which would be closed if the command ever lost its aerospace functions.[10] Yet, as Joseph Jockel reminds us, NORAD is far from a "vital conduit" of information. As he goes on to say, there is also vagueness "about which information and…what data vital to Canada could only be obtained through the joint command."[11]

On a broader level, proponents argue that Canada would also benefit from protection against ballistic missiles and gain "a seat at the table where the defence of our territory is decided."[12] Both points are closely related, in so far as territorial protection must be secured by having a seat in the GMD intercept planning process itself, specifically by ensuring that Canadian cities are located somewhere on the priority list for missile interceptions. Canada cannot simply assume that having NORAD involved in interceptions would be tantamount to having a say in what locations are actually protected; release authority is distinct from intercept planning. Consultations over any intercept attempt would also not suffice. Canadian officials had previously shown some interest in such a commitment prior to Martin's refusal, but they might have been disappointed by the results – at least based on the poor record of consultations for much of the command's history.[13]

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[9] Joel Sokolsky and Philippe Lagasse, "Suspenders and a Belt: Perimeter and Border Security in Canada-US Relations," *Canadian Foreign Policy Journal* 12, 3 (2005): 22. In 2012, Canada Command was incorporated into the new Canadian Joint Operations Command, responsible for both domestic and expeditionary missions.
[10] James Fergusson, *Beneath the Radar: Change and Transformation in the Canada-US North American Defence Relationship* (Calgary, AB: Canadian Defence and Foreign Affairs Institute, December 2009), 3, 5.
[11] Joseph Jockel, "Saving NORAD: Should Ottawa Seize the Obama Moment," *SPP Briefing Papers* 2, 3 (2009): 11.
[12] Gurney, "It's time for Canada."
[13] James Fergusson, *Canada and Ballistic Missile Defence, 1954-2009* (Vancouver, BC: University of British Columbia Press, 2010), 239-240. Diplomatic notes that approved the NORAD arrangement entailed a commitment for political consultations. However, as shown in a 1988 study, there has only been one reported case of consultations – the 1958 Lebanon nuclear alert. David Angell, "NORAD and Binational Nuclear Alert: Consultation and Decisionmaking in the Integrated Command," *Defense & Security Analysis* 4, 2 (1988): 135.

Yet claims on such benefits should be taken with at least a grain of salt. True, Canada might not presently enjoy such protection, owing to America's capacity to track the trajectory of ballistic missiles and thereby distinguish whether the missile was aimed at a target in Canada or the United States. In other words, Washington may place greater priority in intercepting missiles headed towards its own cities, whether by undertaking a greater number of intercept attempts against those missiles or ignoring the ones targeting Canadian territory altogether. But this possibility must be measured against the likelihood that Canada would even find itself targeted by a ballistic missile or that the United States would eschew offering at least a modicum of protection for Canadian cities under all but the most extreme situation – to say nothing of the relatively modest defensive capabilities offered by GMD.[14]

More importantly, Canada is by no means guaranteed to have a say in GMD's decision-making process, even if it agrees to participate in the system. Prior to Martin's refusal to participate, the United States showed itself particularly reluctant to either guarantee the protection of Canada or have Canadian input in intercept planning. Even the draft Memorandum of Understanding (MOU), meant to pave the way for Canada's participation in 2005, still kept command and control in American hands, with only the possibility that "broader Canadian and NORAD access and potentially input might be secured in the future."[15] As such, Canada may have to settle for having only a "seat at the console,"[16] at least absent a more substantial contribution.

The last point brings up another consideration, one that is closely tied to the degree of Canada's input, confidence over its protection, and indeed nature of its participation – and that is the question of cost. Some commentators seem to assume that Canada's participation would not entail much in the way of substantial costs, without specifying what benefit the United States would gain or why it would then choose to be open to Canadian input.

More astute observers have pointed to an asymmetrical or "in-kind" contribution by Canada. Yet it is important to recognize that this might not come cheaply. One cannot assume that Canada could simply incorporate its existing "satellite and land-based tracking facilities into Ballistic Missile Defence."[17] Canada has no land-based tracking facilities to speak of, and its recently launched military satellite (Project Sapphire) is already a component of the US Space Surveillance Network that feeds information to both NORAD and the GMD system, sharply reducing its capacity to leverage this asset to play a role in missile defence. At most, by contributing to NORAD's early warning and tracking functions, Project Sapphire could potentially help safeguard the command's aerospace role – and even this outcome is not guaranteed.[18]

Perhaps for this reason, there are reports that Canada is now looking at revising earlier plans for a ground-based x-band radar at Goose Bay, Newfoundland. Such a facility would provide

[14] For a recent example, see *Making Sense of Ballistic Missile Defense: An Assessment of Concepts and Systems for U.S. Boost-Phase Missile Defense in Comparison to Alternatives* (Committee on an Assessment of Concepts and Systems for U.S. Boost-Phase Missile Defense in Comparison to Other Alternatives, Division on Engineering and Physical Sciences, National Academy of Sciences 2012). Oddly enough, commentators like Matt Gurney use this report to justify Canada joining in the GMD system, even though the report is actually quite critical on the effectiveness of this system and advocates an alternative (GMD Evolution or GMD-E).
[15] Fergusson, *Canada and Ballistic Missile Defence*, 242 (emphasis added).
[16] Joel Sokolsky, "A Seat at the Table: Canada and its Alliances," *Armed Forces and Society*, 16, 1 (1999): 21.
[17] Robertson, "North Korea's threats."
[18] For more on Project Sapphire, see James Fergusson, "Sapphire: Canada's first dedicated military satellite," *Vanguard Magazine* (December/January 2013): 22-23.

important tracking and cueing capabilities and additional radar coverage against an Iranian ballistic missile, especially if the United States moves ahead with constructing a third interceptor site. Defence officials seem confident that Canada would only need to supply territory and services for a total cost of $500 million, with the remainder (including the radar itself) to be supplied by the United States.[19]

Nevertheless, such an assumption also seems premature, at least if Ottawa hopes to translate such a contribution into input in the interception planning process itself. Indeed, with the onset of sequestration, the United States is expected to make some very sizable defence cuts over the next ten years – totaling nearly $1 trillion, if one includes the initial spending caps brought in by the Budget Control Act. Even Obama's recent decision to deploy an additional 14 GBIs is expected to cost an additional $1 billion, which was only partially offset by delaying (and potentially cancelling) the development of a more advanced Standard Missile (SM-3 Block IIB) for its Aegis ships. The cost of a third interceptor site on the East coast would be even steeper.

Canada could then find itself confronted with requests for additional contributions that would be difficult to ignore, whether taking a greater share of the cost of a radar site on Canadian territory or contributing funds for a third GBI site. Even America's recent overture for Canada's participation, if reports prove accurate, could arise from Washington's growing interest to offset some of the cost burden of this system. Canada needs a better sense of what participation entails and what costs might result from such a decision. Proponents like Paul Chapin have criticized the previous Liberal government for rejecting the draft MOU that could provide "the necessary flow of information."[20] Yet there is also reason for caution. Yes, Canada would finally receive greater information on missile defence. But it would come at the price of having less room to refuse American preferences, even if it discovers that the costs are higher than expected.

It is unfortunate that Canada's debate on missile defence has been largely confined to developments in North America. True, Canada has good reason to focus on strategic defences closer to home, due to the pressing need to ensure continental ties are kept strong. But it might be time to look further afield on missile defence, especially given the continuing uncertainty over the benefits and costs of GMD participation. More to the point, Canadian governments will continue to be very cautious in agreeing to participate in this system, due not least to the opposition's ability to raise the spectre of Reagan's "Star Wars" initiative and claim a link to space weaponization, irrespective of the merits of this argument.

One possibility is the North Atlantic Treaty Organization (NATO). After all, the alliance recently agreed to expand the scope of its own active layered theatre ballistic missile defence program, which is now oriented to provide area protection of its population centres against short- and medium-range ballistic missiles. Washington is also supporting this trans-Atlantic endeavour with its sea-based Aegis ballistic missile defence (BMD) system, by first deploying four Aegis BMD ships to be homeported in Rota, Spain, and later to include land-based components, such as an x-band radar in Turkey and "Aegis Ashore" interceptor sites in Romania and Poland. As a result, Canada also has the option of pursuing missile defence effectively through NATO's backdoor.

[19] David Pugliese, "Defence officials eyeing Goose Bay for U.S. missile shield radar site," *Ottawa Citizen*, 2 May 2013.
[20] Paul Chapin, "The real story of Canada and BMD," *Ottawa Citizen*, 27 April 2013.

Such cooperation could prove more domestically palatable, in so far as it takes place on a multilateral institutional context on a system designed against shorter-range missiles. In addition, Canada would also be able to share the costs with multiple partners and help reassure the Americans on its reliability as a security partner. True, it might appear odd for Canada to play a direct role in NATO's missile defence plans while only being indirectly involved in – and enjoying some purported protection from – GMD in North America. But there are historical precedents. For instance, Canada sent much of its air force squadrons to Europe under NATO in the early 1950s and had to rely on US air defence interceptors and personnel to man the radar stations on its territory.

Another possibility is sea-based BMD. After all, Canada already plans to build 15 Canadian Surface Combatants, with at least a few likely designated for area air-defence (AAD), in order to replace the capability offered by its aging destroyers. If it incorporated the Aegis combat system, the Royal Canadian Navy (RCN) would gain an important AAD capability against increasingly sophisticated air-breathing threats, ensure continued access to high-threat threat environments, such as in the Western Pacific and Persian Gulf, and also help preserve interoperability with the US fleet and allied navies, all of which are increasingly reliant on Aegis technology. As such, there is reason enough for the Navy to consider the Aegis system if it hopes to retain its long-standing AAD role.

Importantly, the RCN would then have the opportunity to participate in the Aegis BMD system and do so gradually, based on incremental upgrades to its architecture. For example, Canada could initially rely on the SM-2 missile, primarily designed against aircraft and anti-ship cruise missiles, though more advanced versions are capable of terminal interceptions of ballistic missiles. It could later convert these vessels to a full Aegis BMD capability, by upgrading to the Aegis 4.0.1 system and procuring SM-3 missiles designed for midcourse interceptions of short- and medium-range ballistic missiles. The cost of conversions would not be onerous, estimated to be roughly US$45-55 million, with each SM-3 missile as low as US$12 million.[21] Aegis BMD ships are also inherently flexible, both in their possible deployment patterns and their use of the Vertical Launch System, which "allows for an assortment of missile types [e.g., the SM-2 and/or the SM-3] to be fitted within the missile cells."[22]

Ultimately, Canada sits at the cusp of a renewed debate on missile defence. It might be easy to discount the concerns of critics of Canadian GMD participation, given their tendency to exaggerate the likelihood of space weaponization and overstate the impact among both established nuclear powers and rogue states alike. But proponents are also far from convincing when they speak about the clear benefits and few costs associated with missile defence. This does not mean officials in Ottawa should reject such a request if it indeed arrives. But it does mean that Canada needs to have open eyes on what participation in GMD could actually entail – and to be willing to contemplate alternative forms of missile defence cooperation, whether in NATO and/or at sea. A vigorous debate on these issues is a good place to start.

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[21] Ronald O'Rourke, "Navy Aegis Ballistic Missile Defense (BMD) Program: Background and Issues for Congress," *CRS Report for Congress* (Congressional Research Service, 14 March 2013), 3-4. The SM-3 Block 1B is estimated to cost US$12-15 million each. The more advanced Block IIA is estimated to be US$20-24 million per unit, though even this amount is still much cheaper than GMD interceptors.

[22] Christopher Bullock, "Canadian Ballistic Missile Defence from the Sea: Interoperability and Sea-based BMD," *Journal of Military and Strategic Studies* 6, 1 (2003): 3.

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