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Responding to the *Hardening the SHIELD: A Credible Deterrent and Capable Defense for North America*

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Thank you to the Wilson Center for the chance to comment.

This is a really interesting and forward-thinking [paper on the defence of North America](#) which pulls together the hints provided in many of Gen O’Shaughnessy’s testimonies to Congress and the Senate during his tenure. It builds on the thinking of his predecessors and what has been a series of studies from NORAD NEXT to the latest EvoNAD or evolution of north American defence on how to outthink and outpace threats to North America.

Successive NORAD commanders have had, as their first job, a review of NORAD’s missions and capabilities in light of current threats. And I am conscious on the anniversary of 9/11 to note the efforts of NORAD on that day – no organization thinks about 9/11 more than they do and reminders of the day are located outside of and throughout the joint NORAD and USNORTHCOM headquarters at Peterson Air Force base. NORAD’s greatest strength has been the ability to reinvent itself in light of changing geopolitics. The changes have been more evolution than revolution, but still, they have mattered, and Canada has been onboard. From adopting a drug interdiction assistance role in the 1990s, to pivoting to counter terrorism and a look inside North America as opposed to just the approaches after 9/11, to the adoption of a maritime warning mission in 2006, NORAD continues to change.

This latest “thinking” about the defence of North America suggests a revolution in how one conceives of not only NORAD’s role, but crucially USNORTHCOM’s role with implications for other combatant commands as well. This revolution is prompted by the twin challenges of great power competition and a Unified Command Plan designed for another era. The Bottom Line Up Front of this paper is a call for a new North American defence architecture that is both an integral cog in the US deterrence machinery and can “actively” – i.e. offensively if necessary – defend the homeland so that the US military can maintain its superiority and freedom to manoeuvre. This revolution is dependent on many factors coming together (and ideally not during a pandemic when economic budgets are stretched thinly). Bold thinking is to be applauded. Inevitably,

however, bold thinking also raises questions, especially for Canada and for NORAD because this **revolution first) might be more than the Canadian public and government can digest right now and second) may still leave North America vulnerable because the focus on great power competition (and back to symmetric threat challenges)** shifts attention away from persistent threats, like climate change (which accounts for a significant % of CJOC and USNORTHCOM missions), and asymmetric threats to North America.

First, Canada, it must be recognized, is the biggest cheerleader of NORAD for many reasons including because it provides the CAF with privileged insight into US strategic thinking regarding decisions made vis—-a-vis North American defence. In addition to extra training and command opportunities for the CAF, NORAD has been vital to providing some of the key infrastructure like the NWS, which is essential for the military and civilian agencies as well. And, while Canada “owns” these assets, the U.S. has contributed the lion’s share of the funds because NORAD is binational. Binational means that Canada and the US are not just operating in parallel (that would be bilateral), Canada and the US operate jointly with one focus – North America’s defence. Canada embraces NORAD because it has been to date, a defensive command. NORAD operates in and from home, not away. What is being suggested in this paper is that NORAD will no longer be an exclusively defensive command but also an offensive command – this is what engaging the “archers” (the launch platforms) rather than the ‘arrows’ can infer. The question becomes what if the archers are outside of USNORTHCOM’s Area of Responsibility? NORAD does not, in theory, have geographic limitations on its warning missions given its global area of operations. Will NORAD pass the warning to another combatant command? Not only does Canada not possess capabilities for such a function, but this implies a fundamental re-structuring of the US UCP. Of course, offense and defence are two sides of a coin and one might suggest this is semantics only but language does matter. Canada is reluctant to use the term “adversary” (it is only referenced 3 times in SSE whereas climate change is referenced 10 times). Russia is referenced as problematic in Eastern Europe and in a NATO context and China “is a rising economic power with an increasing ability to project influence globally.” (p. 50 SSE). Rather than referring to “kill chains”, Canada references “defeat” capabilities. Where the U.S. refers to homeland defence, Canada refers to defending Canada and North America and Canada calls the Arctic an indigenous homeland rather than a fortress. These differences in language point to a different outlook as to how we perceive threats to Canada and how best to defend Canada and North America. Canada, for example, does not send troops overseas to defend Canada except with the support of allies and importantly the US. For the U.S., until recently and referenced in the paper, the defence of the U.S. is the away game. This concerted attention to North America is new and necessary, but still very uneven between the US and Canada both in terms of perceived threats and abilities to respond.

Data, and lots of it, is the key ingredient to much of the SHIELD concept. Intelligence from all domains and from around the world including from new sensors, space-based assets, and intelligence from civilian agencies and allies will improve the fidelity of information and decision-making by producing a better, more detailed common operational picture. Certainly, after 9/11, NORAD’s direct access to feeds from the Federal Aviation Administration (and importantly FAA personnel on the watch floor) has been invaluable. But the AI and cloud based analysis that will be required will be a) very expensive at a time when both economies are in a recession; b) assume timely and coordinated procurement processes and c) will reside within the US exclusively. I cannot imagine the United States allowing allies to be the final say on the filters applied or to

'own' the COP which means the age old problem of sharing secret data with the United States needs to be solved.

Now to the focus on great power competition. Russia is the acute threat in a North American context (because of its capabilities, especially in the Arctic) but China is the chronic threat in all other contexts and the most anticipated peer competitor to the U.S. The United States has signalled, in many recent documents, that it feels more vulnerable, though most of the attacks by Russia and China against the US have been conducted covertly and via social media/cyberattacks and espionage. Nevertheless, a threat in Eastern Europe can no longer be seen as an isolated threat to only the immediate surrounding region. We forget that it wasn't until after 9/11 that there was a dedicated combatant command for North America. Before, there was U.S. Joint Forces Command (JFCOM), with responsibility for land and maritime defense of the continental states and provider of military assistance to civil authorities, and North American Aerospace Defense Command (NORAD) for aerospace defense. In essence, when you looked at the unified command plan map prior to 9/11, all parts of the world had a commander in chief dedicated to focusing on the threats to that region, but that was not the case for North America. That had to change and USNORTHCOM was the solution. Given the regional focus of the geographic combatant commands, each has a different threat posture and focus. Consider the concerns of USSOUTHCOM vs. EUCOM (for example). INDOPACOM is the behemoth and it and EUCOM vie for the title of most strategic command in the world. (Current US doctrine, I suggest, favours the Pacific, notwithstanding the recent pivot to the Arctic).

This paper suggests USNORTHCOM and NORAD become **the** crucial command within the UCP. On the one hand, this makes sense – of course a military's first obligation is to defend home. But 70+ years of US military doctrine has discounted, overlooked and marginalized defence of the homeland. All 8 USNORTHCOM commanders have had to advocate for attention to be paid to USNORTHCOM and to remind the chain of command it does more than defence support for civil authorities (as vital as that is). For SHIELD to come to fruition, it will need the buy in of all of the geographic and functional combatant commands.

Second, the assumption, throughout the document, is that China and Russia are intent on keeping U.S. forces from deploying because of their ability to hit North American targets from far away assuming war will require large numbers of soldiers and assets to respond rather than a "come as you are" conflict perhaps in other domains that don't require the mobilization of troops. The technologies that Russia and China have are lethal and in the case of hypersonic glide vehicles – currently undefendable. There are other states of concern, but Russia and China both have the capabilities to severely disrupt the West and China, especially, is seeking to change the word order in its favour. Accordingly, North America needs both deterrence and defence – the former has been the main role of NORAD for 62-plus years. It is the defence part on which the authors suggest we need to think far beyond North America and in all domains – something my colleague Jim Fergusson and I have been arguing for many years. And while USNORTHCOM has all domains represented within its command, NORAD does not nor does there seem to be appetite among the other services (land, maritime etc.) to be part of NORAD if the rejection of maritime control is any indication. All domain command and control also suggests a rethink of the Western trend toward organizing along domain specific component commanders. What is more, an important part of defence for the United States is the capability to defeat a

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ballistic missile attack. Canada has supported being apart of the warning side but not the defeat side. This could change but could also require a reopening of the NORAD agreement which historically has been challenging and is why Canada, in particular, pushed for the agreement to be signed in perpetuity.

Let's suppose that Canada does say yes to missile defence, I wonder if this guarantees that NORAD would acquire command and control of continental BMD, and through NORAD, would Canada have input over what targets to defend or sacrifice?

And, is it guaranteed such an invitation to join would be extended by the United States? Generally, a sword is wielded by one person. And if space-based assets can substitute for land and sea based assets, then Canada's territory may not feature in the US defeat mechanism calculus.

Finally, there is much emphasis on the paper on receiving information "at the speed of relevancy" to make fast and better decisions. After all, seconds literally do count in some scenarios. On many occasions, however, disaster has been averted because a soldier or analyst doubted what a computer screen was telling him/her or questioned the data blinking on their screen. What if NORAD wanted to exploit or surveil or probe a target rather than defeat it? The AI assisted processes that SHIELD is needed but how it is configured, with what OODA loop parameters (i.e. observe-orient-decide-act), and filters will be crucial. It is important that NORAD and USNORTHCOM do not become linear in thinking or response options. Further, Canada will find it difficult to keep up the predictive analysis and joint all domain command and control plans being recommended not because the Canadian armed forces aren't capable but because it can barely manage what is expected of it now - 50% of CAF missions respond to domestic events such as floods and fire. Will the governments see financial sense in investing in computer assisted defence (notwithstanding concerns about them being hacked or compromised or rendered redundant) against great power competition, which so far has done more damage with a few bots on twitter, than on flood, fire and other support to overwhelmed national authorities?

Nineteen years to the day when the U.S. was attacked from within North America by suicide bombers, the response was very costly wars conducted "away" to deal with terrorism at its source as well as the impetus finally to pay for badly needed feeds of civilian air space information into the NORAD HQ. NORAD adapted, created Op NOBLE EAGLE, and focused attention within North America. Post 9/11, NORAD and USNORTHCOM focused almost exclusively on Sunni-based terrorism. It has not disappeared and the challenges of COVID mean that all forms of terrorism have the perfect grounds in which to thrive. Too close a focus on great power competition may leave North America vulnerable to other threats – especially non-state based actors and what is rapidly taxing governments around the world, including CJOCC and USNORTHCOM, responding to the effects of climate change at home.

NORAD was and remains a bold idea. After WWII, it was the air forces that recognized the air space above North America as indivisible and requiring joint defence, and this recognition has been deeply embedded in the defence thinking of both countries at the political and military levels. I think we all agree that the need to modernize NORAD, and that the CANUS defence relationship for North America is vitally important. The

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authors provide a useful and insightful starting point from which to move forward with detailed discussions between Canada and the US, and the means to do so already exists – the PJBD and its Military Cooperation Committee are the obvious places to create the basis for moving forward, as it was in WWII and since.