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by Alan Stephenson
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POLICY PERSPECTIVE

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The attack on Ukraine is evidence that the Russian bear has not been tamed by diplomatic and economic overtures but has re-emerged in historic Hobbesian form, confirming its use of military force to achieve revisionist ends. Vladimir Putin is Machiavelli's¹ poster child in his brutal and merciless attempt to subjugate Ukraine. Despite multiple reports of inadequacy, the Russian military is a formidable power and will use all the lessons learned to reconstitute its forces post-conflict. China is watching with great interest as it too seeks regional hegemony, modernizing its military across the board with particular investment in high-end space and cyber technologies. Putin is ruthless, vindictive, and will seek retribution for the interference in Ukraine thwarting his plan to reconstitute the Russian Empire. Canada needs to be prepared.

NORAD is the bedrock in the shared security of North America where Canadians are highly respected in a military institution unique in the world. The announcement that Canada is investing significantly in NORAD modernization² is long overdue. However, the geostrategic equation has changed considerably, and one must question whether the current tri-command continental defence structure³ continues to be adequate to face a resurgent Russia and a revisionist China, or whether Canada needs to explore greater integration into the joint force (JF) concept that the U.S. will use in protecting America. A JF is a fundamental organizing construct that integrates all military services and partner agencies under one JF commander (JFC).⁴ The longstanding premise in defending the continent via NORAD has been through deterrence⁵; but what happens when deterrence fails?

Structure Matters

The current tri-command structure contravenes a fundamental principle of war – unity of command – and as a combined⁶ aerospace force, not a combined JF (CJF), NORAD is not the security panacea that many in Canada want to believe. Whether drawn into war via NATO or through direct great-power rivalry, Canada is not immune from attack and needs to be prepared

¹ Machiavelli counsels brutality and cruelty to achieve a prince's goal for power throughout *The Prince*, providing three options to conquer free states: keep the state and install an oligarchy; live there and rule personally; or ruin them. Niccolò Machiavelli, translated by W.K. Marriott, *The Prince*, (Durham, NC: Duke Classics, 2012): 27.

² Defence Minister Anita Anand's testimony before the Senate Standing Committee on National Security and Defence, April 4, 2022, <https://sencanada.ca/en/Content/Sen/Committee/441/SECD/55452-E>.

³ Tri-Command Framework, signed September 2009, outlines how NORAD, U.S. Northern Command (USNORTHCOM) and the Canadian Joint Operations Command (CJOC) operate and co-operate. See <https://apps.dtic.mil/sti/pdfs/ADA529744.pdf>. Note the framework refers to Canada Command, now CJOC.

⁴ "The Armed Forces of the United States conduct military operations as a joint force. 'Joint' connotes activities in which elements of two or more Military Departments participate. Joint matters relate to the integrated employment of US military forces in joint operations," U.S. Joint Chiefs of Staff (JCS), *Joint Publication (JP)-1 Doctrine for the Armed Forces of the United States*, July 12, 2017, I-1, <https://www.jcs.mil/Doctrine/Joint-Doctrine-Pubs/Capstone-Series/>.

⁵ Terrence J. O'Shaughnessy and Peter M. Fesler, "Hardening the Shield: A Credible Deterrent & Capable Defense for North America," Wilson Center, Washington, DC, September 2020.

⁶ "Operations conducted by forces of two or more nations are termed 'multinational operations'... Operations conducted with units from two or more allies are referred to as combined operations," U.S. *JP-1*, II-21.



to fight at home,⁷ not only abroad. Should the unimaginable happen, then unity of effort will be paramount, and the present force employment structure is divided. Although separate and distinct organizations, in simple terms under a JF concept, NORAD is an area air defence command⁸ that defends against air-breathing targets and provides missile and maritime warning to two national joint force commands⁹ – the Canadian Joint Operations Command (CJOC) and the United States Northern Command (USNORTHCOM) – that are responsible for execution of all other military functions. This, in essence, is continental defence, in which these commands make use of the combined defence plan to synchronize military efforts from both countries into one coherent bilateral military defence effort. This operational bifurcation works but has seams and gaps that can be exploited as warfare moves into an age of information dominance.

USNORTHCOM was formed under the Unified Command Plan, in which the U.S. has divided the world into six regionally focused combatant commands (COCOMS) and five functional COCOMs.¹⁰ “USNORTHCOM defends America’s homeland – protecting our people, national power, and freedom of action,”¹¹ meaning the commander’s principal duty is to protect the United States, as the commander CJOC’s duty is to protect Canada. When the U.S. mobilizes for war, the commander (CDR) NORAD – NORTHCOM (N2) receives substantial additional forces to defend the U.S. to augment those aerospace forces already apportioned to NORAD. As a COCOM, CDR USNORTHCOM will transition to the homeland JFC with NORAD area air defence functions likely being delegated to the deputy commander to allow CDR USNORTHCOM to focus on leading the JF in its homeland defence mission.¹² The distinction between commands is clearly articulated in U.S. doctrine: “Although CDRUSNORTHCOM is normally designated CDRNORAD, the commands are distinct entities.”¹³ Thus, it is critical not to conflate the U.S. homeland defence mission with continental defence activities in order to understand what protection NORAD delivers bi-nationally and what it does not.

There is policy dissonance with Canada’s opposition to ballistic missile defence (BMD) and it directly impacts Canadian security interests. Canada supports NORAD’s integrated tactical warning and attack assessment (ITW/AA) role, but “the ITW/AA system is a critical component of the US nuclear C2 [command and control] system.”¹⁴ BMD may raise moral objections that are reminiscent of the nuclear weapons quandary Canada faced with ITW/WA,¹⁵ but the growing necessity of defending against emerging hyper-glide vehicles (HGV) that use low Earth orbit

⁷ “This tectonic shift in geopolitics will not be limited to Europe. It will also play out at home, on our continent and in our Arctic, and we need to shore up our defences,” Jonathan Quinn (Director General, Continental Defence Policy, DND), evidence to Standing Committee on National Defence, March 30, 2022, <https://www.ourcommons.ca/Content/Committee/441/NDDN/Evidence/EV11673975/NDDNEV14-E.PDF>.

⁸ See U.S. JCS, *JP-30 Joint Air Doctrine*, July 25, 2019, II-6, <https://www.jcs.mil/Doctrine/Joint-Doctrine-Pubs/3-0-Operations-Series/>.

⁹ “NORAD is only in aerospace. From a maritime warning point of view, where we might see something wherever, if it is in the maritime domain, we have a mission to report to both national chains of command,” LGen. Pierre St-Amand (Deputy Commander NORAD), evidence to Standing Committee on National Defence, April 19, 2016, <https://www.ourcommons.ca/DocumentViewer/en/42-1/NDDN/meeting-8/evidence>.

¹⁰ United States Congressional Research Service, “Defense Primer: Commanding U.S. Military Operations,” February 18, 2020.

¹¹ U.S. Northern Command, May 6, 22, <https://www.northcom.mil/About-USNORTHCOM/>.

¹² “Command is the most important role undertaken by a JFC. C2 is the means by which a JFC synchronizes and/or integrates joint force activities. C2 ties together all the operational functions and tasks and applies to all levels of war and echelons of command,” *JP-1*, xxiii.

¹³ U.S. JCS, *JP 3-27, Homeland Defense*, April 10, 2018, III-20, <https://www.jcs.mil/Doctrine/Joint-Doctrine-Pubs/3-0-Operations-Series/>.

¹⁴ U.S. *JP-1*, C-2.

¹⁵ This issue is reminiscent of the nuclear weapons quandary that John Diefenbaker, Lester Pearson and Pierre Trudeau found when trying to balance support to U.S. strategic security policies with Canadian society’s ideational opposition to nuclear weapons. See Joseph Jockel, *Canada in NORAD 1957-2007: A History*, (Kingston: Queen’s Centre for International Relations & Defence Management Studies, 2007): 49-66.



challenges the moral dilemma of war in space as do the anti-satellite weapons demonstrations by Russia and China. As with Canada's stance on non-proliferation of nuclear weapons and their use, so too can Canada accept the defensive necessity for BMD while not violating its position on war in space. There are ways to provide support to BMD, much like ITW/AA, through the use of signals intelligence, geospatial intelligence and space-based detection systems, as well as the use of the electromagnetic spectrum and other non-kinetic means that Canada can consider.¹⁶ Importantly, non-participation means no influence when critical decisions are made in preparation, planning and execution. Canada needs to be part of the decision-making loop when North America's defence is in question.

Central to U.S. JF defensive counter-air operations is the integrated air and missile defence (IAMD) concept, as it is in NATO where Canadian policy paradoxically supports BMD. "IAMD is designed to deter, and failing that, to prevent an enemy from effectively employing air and missile assets ... At the theater level, IAMD consists of DCA [defensive counterair] supported by OCA [offensive counterair] attack operations."¹⁷ This is one aspect of the JF concept that should be central to NORAD but currently shares the missions of air and missile defence with the national commands. As the deputy CDR NORAD, LGen. Pierre St-Amand, testified before the Standing Committee on National Defence in response to a question on BMD, "If [Canada] were part of the missile defence shield, that would enable the binational command to simplify command and control for that threat."¹⁸ A critical point to understand is that it is the CDR USNORTHCOM who employs the limited BMD assets in defence of the U.S., not the CDR NORAD, who has no authority to execute the BMD mission. It is the CDR USNORTHCOM's primary duty to protect the U.S. with his BMD assets while the commander CJOC has no capability. In terms of OCA, NORAD has a limited mandate to attack missile-carrying platforms, the so-called archers. NORAD can destroy aircraft and cruise missiles (the arrows), but missile-carrying ships and submarines are the responsibility of the national commands that control offensive maritime and air assets. This OCA function is another component of a strong IAMD layered defence that should be integrated into a bi-national JF concept rather than depend on bilateral arrangements.

Areas of synergistic maritime and land operations provide additional rationale for consolidating bilateral contingency plans into a bi-national CJF structure that ensures unity of effort and increases force capability in times of war. This is particularly critical as Russia and China have invested significantly in fielding highly advanced, stealthy guided-missile submarines that threaten critical infrastructure on three coasts that will be crucial when conducting military operations at home or abroad. St-Amand clearly stated that the three operational commanders advised in 2016 that the tri-command structure evolve into "a NORAD type of construct, so binational, a continental defence perspective" when queried on the move away from joint

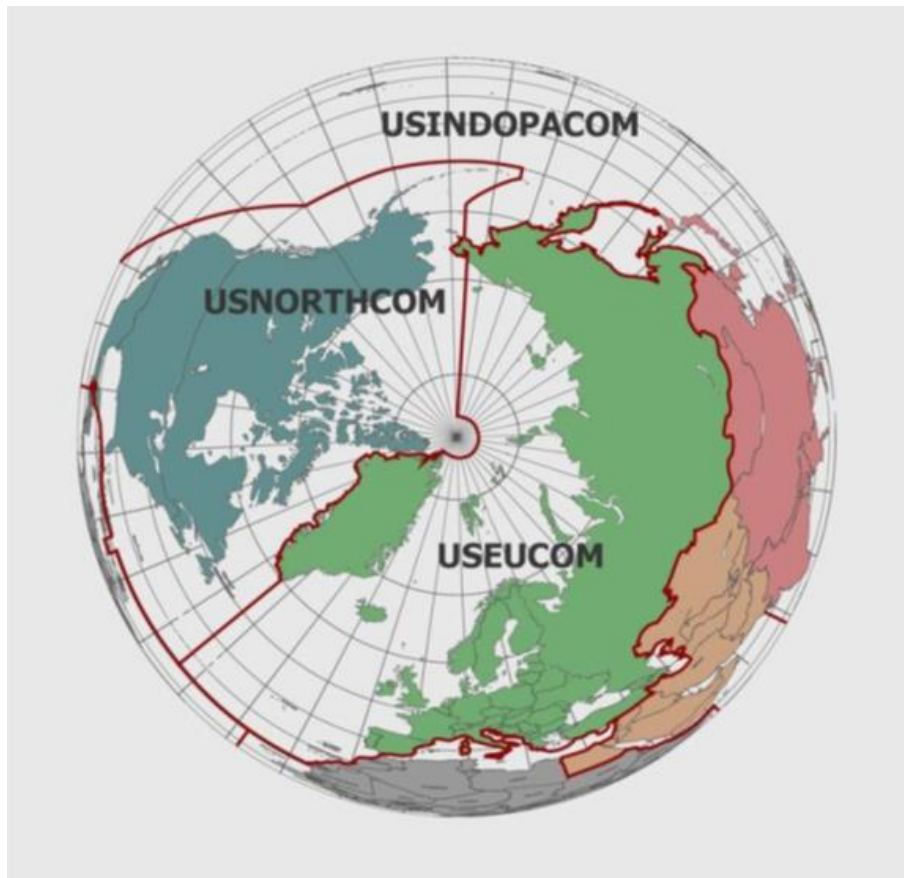
¹⁶ See Joe Gould, "NORAD Boss Wants to Get Creative about Defeating Cruise Missiles," *Defense News*, April 25, 2022, <https://www.defensenews.com/pentagon/2022/04/25/norad-boss-wants-to-get-creative-on-defeating-cruise-missiles/>; and Joe Gould, "Eyeing Hypersonic Threat, Canada 'Nears' Robust NORAD Investment," *Defense News*, April 28, 2022, <https://www.defensenews.com/global/the-americas/2022/04/28/eyeing-hypersonic-threat-canada-nears-robust-norad-investment/>.

¹⁷ U.S. JCS, JP 3-01, "Countering Air and Missile Threats," May 2, 2018, x, <https://www.jcs.mil/Doctrine/Joint-Doctrine-Pubs/3-0-Operations-Series/>.

¹⁸ St-Amand evidence, 10.



operations by the Standing Committee on National Defence.¹⁹ Joint efforts in the Arctic region are of growing importance as this area becomes more vulnerable from the sea axis due to climate change. As the archers may be located outside the CJOC and USNORTHCOM's areas of responsibility, global co-ordination along the COCOM jurisdictional seams is of paramount importance.



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The CDR N2 testified before the U.S. Senate Armed Services Committee articulating the strategic principles underpinning the N2 “homeland defense design: all-domain awareness, information dominance, decision superiority, and global integration.”²⁰ Global integration will leverage the capabilities found in the global COCOM network. To achieve these combined goals, the U.S. military has embarked on developing disruptive technologies to make use of the immense data available in countering emerging threats. Both Canada and the U.S. are undergoing a transformation in military operations (TMO) and investing heavily towards greater digitization that will allow for multi-domain operations (MDO). The incorporation of artificial intelligence is

¹⁹ Additionally, “as we look at the future under tri-command, we are now starting to challenge ourselves with questions such as whether the aerospace domain is sufficient to defend North America or whether we should think about going into a binational as opposed to bilateral approach,” St-Amand evidence, 5.

²⁰ United States Senate Armed Services Committee (SASC), “Statement of General Glen D. VanHerck, United States Air Force Commander, United States Northern Command and North American Aerospace Defense Command,” March 24, 2022, <https://www.armed-services.senate.gov/download/vanherck-statement-03/24/2022>.



necessary to address data overload and the complexity of future warfare. All-domain awareness, information dominance and decision superiority are designed to reduce the time between sensor and shooter in a combat environment determined by minutes, not hours.

Opportunities exist during digital transformation and development of the C2 system for MDO (pan-domain C2 in Canada and joint all-domain C2 in the U.S.) to synchronize efforts and build upon a CJF defence of North America structure. This, however, requires a paradigm shift at the political level from one of building higher defensive walls in NORAD to preparing Canada to fight a future war from Canada by structurally aligning its military effort with that of the U.S. NORAD's current mandate will continue to be the foremost operational mission given that the primary threat to North America will be long-range missiles. Solidifying the defensive posture will provide greater deterrence but when deterrence fails, Canada must be an integral partner in a combined JF effort with the U.S. to protect Canada and America.

Unity of Purpose

Russia relies on missile technology in large measures and has made extensive use of cruise and ballistic missiles to hit targets of military, economic and political importance in the war in Ukraine. The 2003 electrical blackout clearly demonstrated the consequences of losing critical infrastructure, as Ontario and eight U.S. states were without electricity for up to two days because of a software glitch. Whether by cyber-attack or a well-placed HGV, the integration of the North American economy makes Canada an early target in any great-power conflict. NORAD's inception was to provide perimeter defence against the manned bomber. With the advent of intercontinental ballistic missiles (ICBMs), it took on the mantle of nuclear deterrence as well. Geography ensured that defence and deterrence from threats against North America were primarily focused on the approaches to North America. However, Russia and China have developed weapons that can be launched from national territory, can appear from any direction and are designed to evade NORAD's best defences.

Finland and Sweden have taken the unprecedented step of applying to join NATO after years of neutrality. If, as Defence Minister Anita Anand stated, "We are taking a very bold and aggressive look at what we need to do for the defence of the North American continent,"²¹ then Canada should consider emulating such courageous decisions when conducting the defence review announced in the recent federal budget. Modernizing NORAD needs to go beyond adding capabilities; the review discussion needs to address how Canada intends to go to war when deterrence fails. The current tri-command construct works extremely well in peacetime, but unity of command needs to prevail in times of tension and war. Whether modernizing NORAD means expanding its mandate in a similar but limited fashion to the NATO model²² or whether inclusion within a revised COCOM CJF construct is preferred, Canada can no longer afford to simply contribute to a larger fortress for continental defence. Unity of effort demands that Canada fully participate in

²¹ Defence Minister Anita Anand's address to the Canadian Global Affairs Institute, May 10, 2022.

²² The commander EUCOM is double-hatted as supreme allied commander Europe (SACEUR), the operational commander of NATO forces.



the joint force construct that USNORTHCOM will employ in defence of the U.S. Alignment of interests will facilitate future force development, leverage procurement decisions and create a combat-ready force for the defence of North America. It is in Canada's sovereign interest to join forces in defence of our collective homelands.

► About the Author

Alan Stephenson is an aviation consultant and a 35-year veteran of the Canadian Forces. Colonel (ret'd) Stephenson's extensive knowledge of NORAD and NATO airpower follows from his experience as a CF-18 pilot with 3600 hours flying fighters and as a staff officer at all levels of command. Having held senior appointments such as Special Assistant to the Vice Chief of the Defence Staff, Special Assistant to the Deputy Chief of the Defence Staff, Chief of Tactical Evaluation, and as a member of the Permanent Joint Board on Defence (PJBD) 07-08, he has a broad understanding of military and interagency operational and strategic interaction, both domestically and internationally. Operationally, he commanded Task Force Aviano during Op ECHO (1999/00) and 410 Tactical Fighter (Operational Training) Squadron, Canada's basic and advanced "top gun" training schools.

Alan is a graduate of Royal Roads Military College with a BSc in Physics (Sword of Honour recipient), the Canadian Forces Command and Staff College (with Distinction), and the United States Air Force Air War College where he received a Master of Strategic Studies with a focus on the strategic employment of airpower. His Master's thesis, "Shades of Gray: Gradual Escalation and Coercive Diplomacy" won the Chairman Joint Chiefs of Staff Strategy Essay Competition in 2002, the only international student so honoured to date. Alan completed his PhD at Carleton University in May 2016 writing his thesis on Canadian National Security Culture. His areas of interest include international relations, strategic studies, airpower, Canadian defence and foreign policies, NORAD, NATO, and Canada-US relations.

► Canadian Global Affairs Institute

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