

Policy Paper

**Special Edition**

September 2020

**Author**

Dr. Andrea Charron

**The United States Department of  
the Air Force's Arctic Strategy, Space  
Force, the Unified Command Plan  
and the Implications for Canada**

---

## About the Author

---



Dr. Andrea Charron holds a PhD from the Royal Military College of Canada (Department of War Studies). She obtained a Masters in International Relations from Webster University, Leiden, The Netherlands, a Master's of Public Administration from Dalhousie University and a Bachelor of Science (Honours) from Queen's University. Her research and teaching areas include NORAD, the Arctic, foreign and defence policy and sanctions. She serves on Canada's Department of National Defence's Defence Advisory Board and has published in numerous peer-reviewed journals. Dr. Charron worked for various federal departments including the Privy Council Office in the Security and Intelligence Secretariat and Canada's Revenue Agency. She is now Director of the Centre for Defence and Security Studies and is Associate Professor in Political Studies at the University of Manitoba.

For more information on our network please visit our website [uwaterloo.ca/dsf-group](http://uwaterloo.ca/dsf-group) or email us at [dsfgroup@uwaterloo.ca](mailto:dsfgroup@uwaterloo.ca)

Canada's wish has come true. For years, the United States seemed to completely ignore the Arctic, even forgetting it was an Arctic state. Canada had to convince the United States to join the Arctic Council in 1996. In the background, NORAD regularly surveilled the Arctic and Canada and the United States exercised in the Arctic, albeit more tactically than strategically, and not for extended periods of time. Fast forward nearly twenty-five years later and the United States has concluded that the Arctic is now one of the most geostrategically important regions in the world. In rapid succession, the United States has released more Arctic strategies, including the first ever United States' Department of the Air Force's Arctic Strategy. What does this latest strategy portend for the future and specifically for Canada? What does the creation of U.S. Space Force and the U.S. Unified Command Plan suggest for Canada in the future? Will this be a case of regretting or embracing the increased United States' attention to the Arctic?

### **The Department of the Air Force's Arctic Strategy "North Star"**

Officially launched on 21 July 2020, the Department of the Air Force's Arctic Strategy, dubbed "North Star",<sup>1</sup> has four lines of effort: 1) Vigilance in all domains; 2) Projecting power through a combat-credible force; 3) Cooperation with allies and partners; and 4) Preparation for Arctic operations. Efforts 1 and 3 are germane to Canada, to NATO allies and partners and will be celebrated. Efforts 2 and 4 portend changes to current Canadian thinking about the Arctic for the future. As argued by Lindsay Rodman, the Pentagon's 2019 Arctic Strategy marked a pivot by the United States to the Arctic and opened the door for more allied assistance.<sup>2</sup> The Department of the Air Force's Arctic Strategy helps to cement that pivot and highlights how important it is for allies and partners, including indigenous peoples, to work together given limited infrastructure and a vast geography; interoperability is key. North Star also brings into sharper focus the role of space as a particularly important domain for the Arctic. Canada can expect more opportunities to exercise in the Arctic (and for longer periods of time) and there is an expectation that the CAF will keep up with the new tempo that comes when the United States is strategically engaged in a region.

Given the harsh operating conditions and geography of the Arctic pole, which limits the usefulness of ground-based radars, space-based satellites are essential for providing a better picture of what is happening on the ground, in and on the world's oceans and in the air. Air and space are essential in the Arctic as they are the fastest avenue of approach.<sup>3</sup> Via the air is also the only way to get assets and personnel in the right position at the right time in many cases. What North Star highlights, however, is that allies can no longer think about operating in one domain at a time; air, aerospace, space, cyber, maritime, land and even the cognitive space (think, propaganda and misinformation operations) need to be considered together. This is the focus of the binational Evolution of North American study (EvoNAD) advised by the Permanent Joint Board on Defence. Gone are the days of navy personnel, for example, focusing solely on the maritime environment – everyone must work jointly (with other services), combined (with allies) and in all domains – indeed, joint all domain awareness, command and control, communication and targeting are the new goals for the United States and allies will be expected to contribute and keep up.

## Why the Arctic and why now?

---

The USAF has contemplated an Arctic strategy before, but only now has it come to fruition. One of the reasons is that Space Force – now active and another service within the U.S. Department of the Air Force – will be the force generator for space experts for USPACECOM in particular, but also for USNORTHCOM and NORAD and for other combatant commands. USNORTHCOM is responsible for both warning and defeating inbound space threats; NORAD assists only on the warning side. In either case, more space experts are bound to be helpful, especially in an Arctic context, with fewer surveillance assets. The other reason for the timing of North Star is that the approaches to the Arctic are trifurcated among three geographic combatant commands (USNORTHCOM, EUCOM and INDOPACOM). The seams between these commands can be exploited by competitors. An overarching view and approach to the Arctic helps reduce the significance of these seams. USAF and Space Force don't own any operational execution but they do operate across command seams. Canadian military personnel can expect to be working with Space Force personnel in the future, especially in exercises and operations that involve the Arctic. There is also an expectation that allies and partners can ensure that data arrives and is analysed "at the speed of relevance", which means that the speed, accuracy and context of the information and intelligence allies contribute and process will contribute, in some way, to U.S. priorities. The question becomes: can Canada keep up and contribute to this new way of thinking? While many fixate on the need to upgrade the North Warning system, the launch of North Star and inclusion of space as an important component of the strategy suggests that a rethink of U.S. military architecture is under way and with it, new doctrine which could have monumental knock-on effects for Canada – chief among them, Canada's participation in and future of NORAD.

## Space Force as a Pressure for Canada?

---

Given that all domain awareness is the new goal, space becomes the unifier and seam eraser. Space-based assets can access all domains in one go. Land-based radars in the Arctic, for example, can be configured to see the air, but not the land, air, aerospace and sea at the same time – the curvature of the earth and amount of territory to be surveilled makes this technologically out of reach today. From space, however, a much bigger area can be captured with more and more fidelity.

Canada has a very small Space Directorate within the military. Instead, most space experts reside in Canada's Space Agency and they are civilians. By all accounts, Canada has highly sought after space technology; Radarsat Constellation, for example, provides vital information to a plethora of Canadian departments and to allies. And, for the first time ever, the CAF has sent a General Officer to the United States Air Force Space Command (USAFSPC). Brigadier-General K.G. Whale has been appointed to a new position as the Deputy Commander Plans, USAFSPC, in Colorado Springs CO suggesting that the CAF is already prepositioning key personnel within the U.S. space architecture. Plans is this best place to be to get insight into current and future ways of thinking about strategy and operations. This was a wise staffing move.

NORAD is going to want more and more of the information provided by space-based assets to keep pace with new activity in the Arctic. U.S. Space Force will have 16,000 personnel in the future from which to draw creating synergies and opportunities for long-term and very specialized training and recruitment. As Canada cannot create space experts over night and the limited size of our military mitigates against a separate space environment, one solution is to second civilian Canadian Space Agency personnel to NORAD to keep Canada engaged in the new developments in surveillance, tracking, and targeting. After all, the U.S. Federal Aviation Administration (FAA) has been sending civilians to work at NORAD HQ since 2002. That experts are not wearing military uniforms is not important; what is needed are the expertise and ken, especially in the space domain focused on surveillance and avoidance/mitigation of space debris.<sup>4</sup>

The drive to all domain awareness suggests that the current U.S. Unified Command Plan (UCP) is due for a change and the Arctic is impetus for this to change. Currently 11 commands – 6 geographic and 5 functional commands - have evolved since 1946.<sup>5</sup> One of the most significant changes to the UCP occurred in 1986 to fix inter-service rivalries which were attributed to failures in Vietnam, the Iran hostage crisis and the United States intervention of Grenada. The Goldwater-Nichols Act<sup>6</sup> required combatant commanders to report directly to the Secretary of Defense rather than through service chiefs to promote jointness – army, navy, marines and airforce working together and not along strict service lines.<sup>7</sup> The solution was to create geographic commands that required environments to work together. The problem today is that, by dividing the world into regions, there are many seams to be exploited – especially in the Arctic. Add to this the need to consider domains together, rather than separately, suggests an evolution in the future. And just as the creation of USNORTHCOM meant a rethink for NORAD as well as Canada’s former Canada Command (now Canadian Joint Operations Command), so too will a change to the UCP.

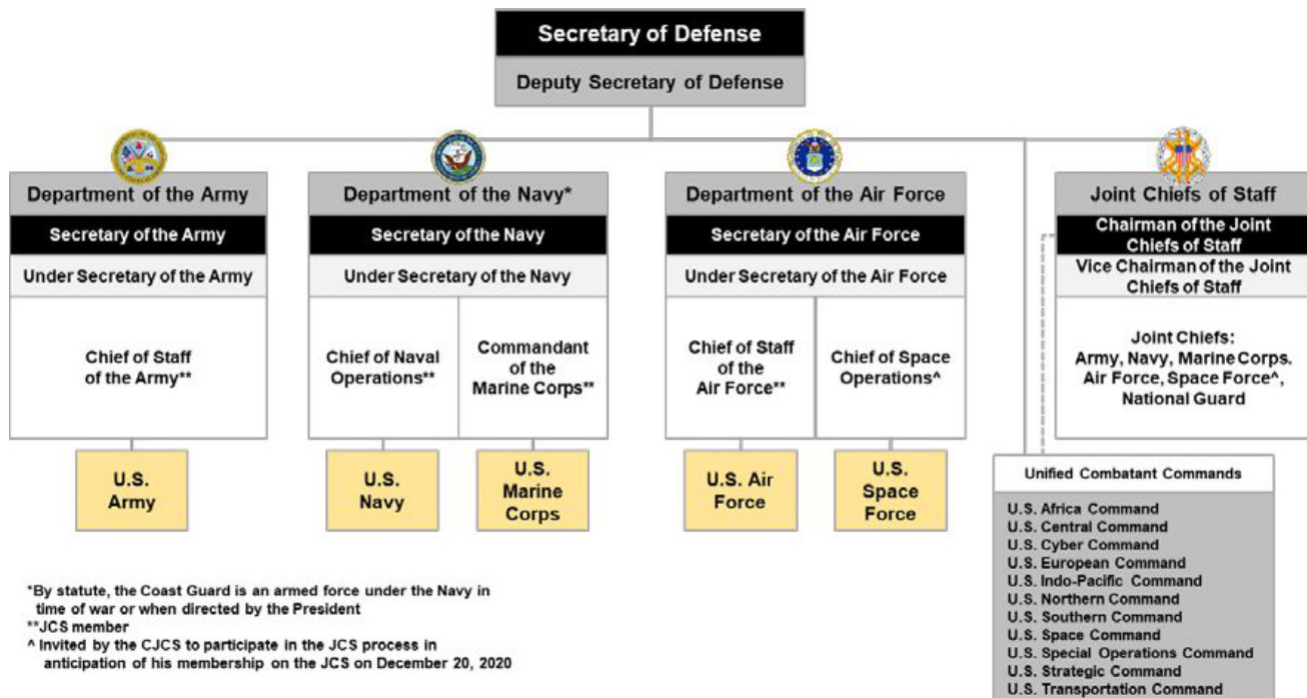


Figure 1: Organizational Chart of the U.S. military. Obtained from: twitter from the Department of Defense.

Space Force, Cyber Command and no doubt, a cognitive-domain task force in the future will put pressure on allies to fill gaps and contribute to the overall U.S. strategy to outpace this new era of splenetic great power competition. Canada has a distinct advantage – Canadian personnel are the deputies of several commands and fleets across the U.S. military system and BGen Whale's recent appointment in USAFSP is but another, shrewd appointment. One-off positions, however, may not be sufficient in the future in particular areas especially when numbers, depth and breadth become important.

Since the United States is clearly more interested in the Arctic and will want to surpass the capabilities of potential adversaries, long-sustained Arctic exercises (think Norway's 2018 Trident Juncture but for many more weeks at a time) are likely in the future. Canada is limited in personnel, but one idea is for a few Canadian Special Operations Forces to join Norwegian, UK and U.S. Marines conducting training on a rotational basis for four months in Norway in the winter (since 2016). Another is to highlight the importance of NORAD's maritime warning mission – it could be essential to aiding the newly reconstituted 2nd Fleet in the vulnerable Greenland-Iceland-UK- Norway gap. Canada's common maritime operating picture is vital to NORAD and five-eyes partners. In the future, it is likely that Greenland will join NORAD in some capacity – if not for the vital strategic positioning of Thule Air Base and its BMEWs ballistic missile centres – but the extended maritime picture it could contribute to for a better understanding of vessels of interest approaching North America. Indeed, as Jim Fergusson and I have been arguing for several years, the functional logic that was the impetus for the creation of NORAD – i.e. that the airspace of North America was indivisible – is the case for all domains. The North Star portends a more functional military doctrine in the future – one that highlights domains rather than geography. Cue recruitment in Canada for space, cyber and cognitive experts. They need not necessarily wear a military uniform. With so much attention on the Arctic, Canada's contribution to discretionary operations elsewhere in the world may need to be curtailed. After all, the first two defence priorities are Canada and North America.

### **Lessons from increased United States Attention in Other Domains**

Of course Canada has faced the pressure of "keeping up" before with the creation of USCYBERCOM. USCYBERCOM has lessons for Canada on what to expect given changing U.S. architecture and priorities. Two recent factors suggest that the creation of Space Force and the latest Arctic Strategy may raise U.S. expectations of allies' commitments and contribution to the space domain and they will be higher than they have been with the cyber domain. The first reason, of course, is the growing power competition and perceived vulnerability of the United States to China especially – the most anticipated competitor to the United States. When Cyber Command was created in 2008 (as a sub-unified command under USSTRATCOM and then as a "dual-hat" arrangement between NSA and USCYBERCOM), the world was recovering from the global recession – China and Russia were not the concerns they are today and sanctions seemed to limited North Korea and Iran's nuclear and cyber weapons' ambitions. Today, the United States is far more concerned about the capabilities of Russia and China as well as their intentions to reshape the liberal world order. If the United States is to maintain military superiority, the United States must outpace the capabilities of peer competitors and plan how to deter a change in the current order. While Canada also expresses concerns about China and Russia, the 2017 Strong, Secure and Engaged defence policy is more muted about pointing fingers.

Cyber, however, is the domain that Canada noted required more attention as a function of the United States' heed. Canada created a cyber operator occupation in 2017.<sup>8</sup>

At the same time, President Trump elevated USCYBERCOM to a unified (functional) combatant command.<sup>9</sup> It is mainly a force employer, meaning it draws its personnel from military service cyber components. In very simple terms, personnel come to CYBERCOM ready to go; it is in the business of operating, not training.<sup>10</sup> In contrast, Space Force is mainly a force generator and this points to the second factor and pressure point for Canada. Space Force trains and exercises space experts for them to reside within commands and forces – it is in the business of growing the numbers of space experts. Given that focus, Canada is likely to feel more pressure to do the same because training and force generation is concentrated in the RCAF, rather than across several military services as is the case for cyber. The RCAF is intimately connected to NORAD which is tied to USNORTHCOM and the United States' pivot to the Arctic.

Given the importance of space assets to provide all domain awareness in the Arctic and given the rising great power competition, allies around the world can expect that the United States will pay more and more attention to the Arctic and preference the space domain for more surveillance options given the outdated NWS and the length of time it will take to create a new multisystem replacement.<sup>11</sup> As NORAD has a vital aerospace warning mission mainly focused on the Arctic approaches, Canada would be wise to pay heed to the Department of the Air Force's Arctic Strategy and consider ways to generate more space experts (and cyber) in the future to remain a valued, binational partner.

- 
1. See <https://www.af.mil/Portals/1/documents/2020SAF/July/ArcticStrategy.pdf>
  2. Rodman, Lindsay. "Iceberg Dead Ahead: Deconstructing the Pentagon's Arctic Strategies", War on the Rocks (25 September 2019) (<https://warontherocks.com/2019/09/iceberg-dead-ahead-deconstructing-the-pentagons-arctic-strategies/>)
  3. O'Shaughnessy, General Terrence, "Statement of General Terrence J. O'Shaughnessy, United States Airforce Commander, US NORTH-ERN Command and North American Aerospace Defense Command before the Senate Armed Services Subcommittee on Readiness and Management Support", Washington, DC (3 March 2020): 1. [https://www.armed-services.senate.gov/imo/media/doc/O'Shaughnessy\\_03-03-20.pdf](https://www.armed-services.senate.gov/imo/media/doc/O'Shaughnessy_03-03-20.pdf)
  4. Of course, the revelation that Russia had released a satellite within a satellite is raising concerns of an increasingly offensive space capability.
  5. In 1946, it was referred to as the Outline Command Plan. The current geographic commands include: USNORTHCOM, USSOUTHCOM, INDOPACOM, EUCOM, CENTCOM and AFRICOM. The functional commands include: USPACECOM, USSTRATCOM, USTRANSPORTCOM, CYBERCOM, SPECIAL OPERATIONS COMMAND.
  6. Goldwater-Nichols Department of Defense Reorganization Act 1986, PUBLIC LAW 99-433-OCT. 1, 1986. [https://history.defense.gov/Portals/70/Documents/dod\\_reforms/Goldwater-NicholsDoDRReordAct1986.pdf](https://history.defense.gov/Portals/70/Documents/dod_reforms/Goldwater-NicholsDoDRReordAct1986.pdf)
  7. Joint forces concern integrating national services – Air Force, Army, Navy – into a holistic command structure. Combined forces relate to integrating allied forces together. Thus, NORAD should be understood as combined forces, evident in the development of a Combined Forces Air Component Command (CFACC) in NORAD
  8. Major Devon Smibert, "Building Cyber Operations in the Canadian Armed Forces: A Blueprint to lay a solid foundation", JSCP 42, Canadian Forces College. (2019).<https://www.cfc.forces.gc.ca/259/290/318/286/smibert.pdf>
  9. USCYBERCOM, "History", <https://www.cybercom.mil/About/History/>
  10. Indeed, one wonders at what point a cyberforce might be needed to assist with force generation. Likely, however, service rivalries and arguments that the cyber theatre is different in different domains will mitigate against a cyber force until there is a Goldwater-Nichols'-like rethink of the UCP.
  11. As an example, the U.S. is assisting with the Canadian Defence Research and Development Canada (DRDC) Polar Over-the-Horizon Radar project and the All Domain Situational Awareness Science & Technology Program