

**NORAD'S MARITIME WARNING MISSION: WHY THE ONLY NEW MISSION?  
THE LIMITS OF FUNCTIONALISM**

by

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**Abstract**

This thesis asks why was only a maritime warning mission added to the binational North American Aerospace Defense Command's (NORAD) existing aerospace warning and control mandate and not other missions? There were other viable options that could have come from the fallout of 9/11 to improve security and defence of North America such as maritime surveillance, maritime control, not to mention land and the cyberspace domains. In the end, NORAD was assigned only maritime warning in 2006. Using the international relation theory of functionalism as a framework to understand Canada-US defence policy decisions and joint defence initiatives, the maritime warning mission addition can be partially explained but it is not sufficient. By investigating from the Cold War era when NORAD was established until the post 9/11 era when the command was eventually signed in perpetuity, this thesis argues that functionalism alone is insufficient. It is not just a functional logic and the need for specific functional-technical solutions that underscores the origins and continued existence of NORAD as a binational organization but also the unique nature of the Canadian brand of functionalism where the Canadian military, in reality, takes the lead in shaping security decisions that favour and prioritize US decisions. This investigation concludes maritime warning was adopted by NORAD because it was the least controversial and was acceptable to Canadian and US military "professionals" in NORAD.

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**Abbreviations and Terms**

ABM Defense Anti Ballistic Missile Defense

AOR Area of responsibility

AWACS Airborne Warning and Control System

BPG Binational Planning Group

CADC Continental Air Defence Command

CANCOM Canada Command

CANOSCOM Canadian Operational Support Command

CANR Canadian NORAD Region

CBSA Canada Border Services Agency

CCG Canadian Coast Guard

CEFCOM Canadian Expeditionary Force Command

CINCADCANUS Commander-in-Chief Air Defense Canada-United States

CINCCONAD Commander-in-Chief, Continental Air Defense Command

CINCNORAD Commander-in-Chief, North American Air (later Aerospace) Defense Command

CINCUSNORTHCOM Commander in Chief, United States Northern Command

CJOC Canadian Joint Operations Command

CONAD Continental Air Defense Command

CONR Continental US NORAD Region

COP Common Operating Picture

DCINCNORAD Deputy Commander-in-Chief, North American Air (later Aerospace) Defense Command

DEW Line Distant Early Warning Line

DHS United States Department of Homeland Security

FAA Federal Aviation Administration

ICBM Intercontinental ballistic missile

IMSWG Interdepartmental Marine Security Working Group

JCS United States Joint Chiefs of Staff

MAREASTOP Maritime East Operations

MARWESTOP Maritime West Operations

MCC Canadian-United States Military Co-operation Committee

MDA Maritime Domain Awareness

MERP Maritime Event Response Protocol

MOTR Maritime Operational Threat Response Plan

MSOC Maritime Security Operations Centre

NATO North American Treaty Organization

NMIO National Maritime Intelligence-Integration Office

NORAD North American Air (later Aerospace) Defense Command

NWS North Warning System

ONE Operation Noble Eagle

PJBD Permanent Joint Board on Defense

POLAD Political Advisor

RCAF Royal Canadian Air Force

RCMP Royal Canadian Mounted Police

RCN Royal Canadian Navy

RJOCs Regional Joint Commands

RMP Recognized Maritime Picture

SAC Strategic Air Command

SACLANT Supreme Allied Command Atlantic

SBD Smart Border Declaration

SLBMs Submarine-launched Ballistic Missiles

SSBNs Nuclear-powered Ballistic missile Submarines

SSNs Nuclear-powered attack Submarines

USAF United States Air Force

USCBP United States Customs and Border Protection

USCG United States Coast Guard

USDoD United States Department of Defense

USDoS United States Department of State

USDoT United States Department of Transportation

USELEMNORAD United States Element NORAD

USFF United States Fleet Forces Command/US Navy North

USN United States Navy

USNORTHCOM United States Northern Command

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## Introduction

Interest in and discussion about the security and defence of North America had taken primal stage since the events of September 9/11 when the United States (US) was attacked directly by Al Qaeda operatives. With the end of the Cold War, interest in Canada's relationship with the United States to defend North America, its closest ally based on history, geography and extensive economic integration, received less attention. Post-Cold War, the United States and Canada assumed they were reasonably secure from direct threats to home given that conflicts and America's way of war meant that military activity and security threats were located far from North America. 9/11 changed that thinking and a new focus on great power competition post 2014 (when Russia invaded Ukraine) means that defence of North America has returned to the political agenda of both states.

The North American Aerospace Defense Command (NORAD) is the "short hand" for the formal and arguably most important military tie between Canada and the United States. Operational in 1957 with the agreement signed in 1958,<sup>1</sup> the binational command of the North American Air (later Aerospace in 1981) Defense Command (NORAD) was tasked with monitoring and defending the airspace of North America. Among other choices or goals, a maritime warning mission was added to NORAD's mandate in 2006.<sup>2</sup> The bulk of the existing literature on North American continental defence and Canada-United States defence and security cooperation mainly

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<sup>1</sup> "Agreement Between the Government of Canada and the Government of the United States of America Concerning the Organization and Operation of the North American Air Defence Command," May 12, 1958, *Canada Treaty Series*, 1958 no. 9, <https://www.treaty-accord.gc.ca/text-texte.aspx?id=101015>.

<sup>2</sup> "Agreement Between the Government of Canada and the Government of the United States of America on the North American Aerospace Defense Command," April 28, 2006, *Treaty E105060*, <https://www.treaty-accord.gc.ca/text-texte.aspx?id=105060>.

emphasizes NORAD's binational command structure as the basis for the enduring cooperation between both countries.<sup>3</sup> The theoretical basis upon which a binational command structure became imperative to the defence and security of both Canada and the United States has been extensively explored but only by two authors – Jockel and Goette.<sup>4</sup> Indeed, Canadians and Americans are largely unaware of what NORAD does other than to “track Santa” let alone warn of maritime threats approaching North America. The United States has contributed more significantly to the command in terms of funds, resources, and personnel in comparison to Canada and so the responsibility for any additional missions falls disproportionately on the United States. The US and Canadian militaries' internal arrangements and agreements, therefore, seem to be important to wider political acceptance of NORAD's missions. Jockel, Goette and Allarie have all argued that the theory of functionalism is a convincing theory to explain how and why a binational command structure was adopted in the first place. Could functionalism account for the expansion of NORAD's mission mandate to just a maritime warning role or might functionalism's explanatory power end at the creation of an organization but not its expansion?

The purpose of this research is therefore to ascertain why Canada and the United States incorporated only a **maritime warning mission to NORAD's existing mandate among other**

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<sup>3</sup> George MacDonald, “Canada-US Defence Cooperation: Where to From Here? Building on Strengths, Understanding Each Other, Expanding Horizons” *Canadian Military Journal* 6, no. 2 (2005): 5–11. Anessa Kimball, “Examining Informal Defence and Security Arrangements’ Legalization: Canada–US Agreements, 1955–2005,” *International Journal* 72, no. 3 (September 2017): 380–400, <https://doi.org/10.1177/0020702017723931>.

Richard Goette, “Canada, the United States and the Command and Control of Air Forces for Continental Air Defence from Ogdensburg to NORAD, 1940-1957” (PhD diss., Queen's University, 2009), 241.

<sup>4</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston, Ont.: Queen's Centre for International Relations & Defence Management Studies, 2007); Richard Goette, “Canada, the United States and the Command and Control of Air Forces for Continental Air Defence from Ogdensburg to NORAD, 1940-1957” (PhD diss., Queen's University, 2009); Andrea Charron, James Fergusson, Rob Huebert, Joseph Jockel, Ellie Malone, Sara McGuire, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen. *NORAD in Perpetuity? Challenges and Opportunities for Canada*. (Centre for Defence and Security Studies, March 31, 2014); Nicolas Allarie, “Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command.” (master's thesis, University of Manitoba, 2016).

**equally viable options towards ensuring the security and defence of North America?** By employing the international relation theory of functionalism as a framework to understand Canada-US defence policy decisions and joint defence initiatives, from its origins to when the binational agreement was signed in perpetuity and a maritime warning mission was added. Under the original defence agreement signed in 1958 NORAD was tasked with the air warning and defence of North America. This expanded over time and because of technology to include an aerospace control mission, drug interdiction support mission, an internal air warning and defence mission, and then a maritime warning mission. Many defence scholars and experts have suggested that NORAD's longevity and continued relevance as the world's only binational defence cooperation can be attributed to specific functional-technical solutions to select issues of mutual concern in continental defence and security for Canada and the U.S that has led to its eventual institutionalization.<sup>5</sup> This thesis focuses specifically on the reasons for the maritime warning mission.

The study will draw from the international relations theory of functionalism which is increasingly being employed in the analysis of Canada-US relationships<sup>6</sup>, particularly with regards to the binational defence nature of the NORAD command.<sup>7</sup>

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<sup>5</sup> Nicolas Allarie, "Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command" (master's thesis, University of Manitoba, 2016).

<sup>6</sup> Richard Goette, *Sovereignty and Command in Canada US Continental Air Defence, 1940-57* (Vancouver, BC: UBC Press, 2018). Christian Leuprecht, Joel Sokolsky, and Thomas Hughes, *North American Strategic Defense in the 21st Century: Security and Sovereignty in an Uncertain World*, 1st ed. (Cham: Springer International Publishing, 2018).

<sup>7</sup> Maritime warning will be analyzed to ascertain whether it represents the functional-technical and mutually beneficial cooperative arrangement that is devoid of the controversial political processes which functionalists advance.

## **Introduction/Rationale for the study**

The North American Air Defense Command was operationalized in 1957.<sup>8</sup> Following the experiences of both countries, especially during WWII, the air forces of the United States and Canada realized that jointly defending the airspace of North America made infinite sense. A binational agreement was signed by Canada and the United States in 1958<sup>9</sup> to ensure the security and defence of North America and formalize the joint air defence arrangements that had been established.

The establishment of NORAD as a binational defence organization is commonly understood to have been a necessary and logical response by Canada and the United States to deal with the common threat towards North America by the Union of Soviet Socialist Republics (USSR) and the potential (and real) threat of aerial attack using nuclear weapons. For all intents and purposes, this is a valid argument for why Canada and the United States engaged in the cooperative air defence of North America. Without such a large, looming, and potentially immediate threat in the superpower rival to the United States, it is hard to conceive of a reason why Canada and the United States would cooperate to construct such an elaborate system of air defence otherwise.

Throughout the rest of the Cold War, NORAD continued to progress as a binational institution for continental aerospace defence and beyond its original mission as the nature of the threat towards the continent changed. In the 1960s, the Soviet intercontinental bomber threat began to wane in comparison to the mounting threat of Soviet ballistic missiles. As the Soviet bomber

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<sup>8</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston. Ont.: Queen's Centre for International Relations & Defence Management Studies, 2007), 25-26.

<sup>9</sup> "Agreement Between the Government of Canada and the Government of the United States of America Concerning the Organization and Operation of the North American Air Defence Command," conclusion date: May 12, 1958, *Canada Treaty Series*, 1958 no. 9, <https://www.treaty-accord.gc.ca/text-texte.aspx?id=101015>.

threat became less of a concern the need for active defences decreased and the Cold War found NORAD shifting its emphasis to missile warning, space surveillance and target identification because deterrence, rather than defence, became the main response to the altered primary strategic threat.<sup>10</sup> The Soviet Union was undoubtedly waning in power in 1989 so NORAD informally acquired a drug interdiction responsibility<sup>11</sup> while maintaining its responsibility towards the threat of nuclear attack beyond the collapse of the Soviet Union in 1991.

The events of September 9/11 culminated in the strengthening of this defence relationship with the addition of a maritime warning mission to NORAD's aerospace warning and control missions. While much of the existing literature recognizes the maritime warning mission as a further step by Canada and the United States in consolidating the security and defence of North America under the binational NORAD agreement, there is not a substantial level of research detailing why that choice was made. Why, for example, was only maritime warning added and not maritime control? And why a maritime focus and not, for example, a land or cyber focus? Also, of the existing literature that explains Canada-US defence choices under NORAD from a functionalist perspective, the North American maritime warning mission is viewed primarily from a security point of view in terms of its utility to both countries. This study hopes to further analyze functionalism in relation to the maritime warning mission or at the least make a significant contribution to it. At its core, the functionalist perspective views cooperation between states as a process of integration that is conducted in response to the need to perform specific functions or tasks.<sup>12</sup> Functionalism proposes that cooperation between states can be successfully accomplished

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<sup>10</sup> Richard Goette, "Canada, the United States and the Command and Control of Air Forces for Continental Air Defence from Ogdensburg to NORAD, 1940-1957" (PhD diss., Queen's University, 2009), 241.

<sup>11</sup> Andrea Charron, and James Fergusson, "Beyond Modernization" quoted in Christian Leuprecht, Joel Sokolsky, and Thomas Hughes, *North American Strategic Defense in the 21st Century: Security and Sovereignty in an Uncertain World*, (Cham: Springer International Publishing, 2018), 141-148.

<sup>12</sup> David Mitrany, *A Working Peace System: An Argument for the Functional Development of International Organization*. (London: The Royal Institute of International Affairs, 1943).

by shifting the locus of cooperation from high politics to low politics.<sup>13</sup> By focusing on the technical aspects of problems that arise, which functionalists assert is easier to do when it comes to matters of low politics, cooperation can be viewed by states and its people as being successful and mutually beneficial, leading to a process of integration, further cooperation, and potentially a political community. Reframed, states need to avoid cooperating to solve problems on a political basis, as politics is grounds for controversy and discord, and should instead focus upon the “practical and technical nature of the problem.”<sup>14</sup>

The maritime warning mission is complex, involving many actors other than the US and Canadian air forces. It comes with the caveat that the mission was not to duplicate existing national structures and processes vital for the security of North America and must be continually monitored and resourced to ensure the security of both countries.<sup>15</sup> Although this new mission has enhanced, indeed improved, bilateral intelligence information sharing between Canada and the United States on the maritime front, the multiple national defence and security departments and agencies operating with different mandates, responsibilities, and legal jurisdictions to facilitate the sharing of intelligence information in the construction of a ‘North American’ maritime common operating picture poses a great challenge to effectively securing the continent.<sup>16</sup>

With Canada and the United States settling for this option in 2006 rather than a maritime defence mission, it is surmised that the maritime warning mission is in line with the functional-

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<sup>13</sup> Robert Keohane, and Joseph Nye, *Power and Interdependence: World Politics in Transition* (Boston: Little, Brown, 1977).

<sup>14</sup> Peter Wolf, “International Organization and Attitude Change: A Re-examination of the Functionalist Approach,” *International Organization* 27, no. 3 (1973): 347–371.

<sup>15</sup> As stated in Article 1 of the 2006 NORAD agreement “Maritime surveillance and control shall continue to be exercised by national commands and, as appropriate, coordinated bilaterally.” See “Agreement Between the Government of Canada and the Government of the United States of America on the North American Aerospace Defense Command,” April 28, 2006, *Treaty E105060*, <https://www.treaty-accord.gc.ca/text-texte.aspx?id=105060>.

<sup>16</sup> Andrea Charron, James Fergusson, Rob Huebert, Joseph Jockel, Ellie Malone, Sara McGuire, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen. *NORAD in Perpetuity? Challenges and Opportunities for Canada*. (Centre for Defence and Security Studies, March 31, 2014).

technical solution that requires the choice to be mutually beneficial to both countries and required a binational institution, like NORAD, to institutionalize those solutions to ensure the continental security and defence of both countries. A functionalist approach will likely explain why Canada and the United States opted for maritime warning, but can it explain why both states said no to maritime defence unlike the original NORAD agreement that allowed for both aerospace warning and aerospace control? Presumably, maritime warning, as an intelligence fusion function, did not entail an overly ambitious change in *modus operandi*. Maritime defence, on the other hand, requires the cooperation, if not a perfect synergy, of both countries' maritime capabilities involving more than the militaries which would require exceptional organizational and command and control restructuring and relinquishment of sovereignty on both sides.

Thus, examining NORAD's maritime warning mission through a functionalist lens is critical to understanding the evolution of Canada-US defence relationship since its inception as well as the value-added usefulness of the new mission within the entire maritime complex and ensuring the security and defence of North America. This study is timely for two reasons. First, the study will reveal the historical reasons for the inclusion of maritime warning. Second, the study will highlight key factors that come to play in decision making in the corridors of high and low politics. NORAD, from its inception, was designed as a traditionally Airforce-centric establishment. As such it has had a hard time modifying its culture, processes and personnel to accommodate a maritime warning mission that involves many civilian agencies as well.

## **Methodology**

As this study endeavors to obtain an in-depth understanding of the complexities of NORAD as a binational institution, the study will employ a qualitative research design that applies the

theory of functionalism (especially as outlined by Mitrany)<sup>17</sup> as the lens to re-examine the historiography of NORAD as well as the factors influencing the policy decisions of the Canada and the United States reflected in the changes to the NORAD agreement over time. The study will begin by exploring the origins and evolution of the Canada-US defence relationship, NORAD and the events leading up to the more recent maritime warning mission. It will rely heavily on a literature review, especially primary and secondary documents. The literature and primary documents to be reviewed will be historical and contemporary in nature. Key research projects on NORAD's maritime warning mission led by Drs. Andrea Charron and James Fergusson as well as important secondary source documents such as those offered by Sloan, Jockel, Goette, Sokolsky, Nossal, and Trudgen, which all analyze an assortment of archival records to provide a detailed account of Canada-US air defence cooperation leading up to the establishment of NORAD and beyond will be utilized.

While this thesis does not claim to be an all-encompassing study to explain the choice of maritime warning for NORAD, the functionalist approach provides some explanation for the command's longevity and continued relevance, despite the many political, economic and geopolitical shocks experienced by Canada and the United States. The use of a functionalist lens might also indicate the limits of the Canada-US relationship and provide policy-relevant findings for NORAD for the future.

## **Chapter Outline**

The structure of the thesis is as follows: Chapter One situates the thesis within a theoretical framework. This chapter focuses on exploring the functionalist theory and its historical relevance

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<sup>17</sup> David Mitrany, *A Working Peace System: An Argument for the Functional Development of International Organization*. (London: The Royal Institute of International Affairs, 1943).

in guiding Canadian foreign policy decisions. Particular attention will be given to Mitrany's work on the functional approach and how it relates to NORAD as a binational defence cooperation as well as the 2006 decision by Canada and the United States to include a maritime warning mission.

The second chapter presents the history of NORAD from 1957 to 9/11 and reveals the reasons stated, at its inception, for the need for the air warning and control missions (i.e., functionalism which could deal with the predominant threats facing North America.) A substantial portion of this chapter focuses on explaining NORAD as the culmination of incremental cooperation in support of functional/technical issues in continental air defence after World War II. This will further highlight why NORAD was made a binational organization, how it contributed to the defence of North America and how it was perceived to be a beneficial arrangement for Canada and the United States, and how, from the outset, it was positioned to adapt to changing defence and security requirements in the future based likely on the functional logic that could address threats i.e., warning and control.

Chapter Three will then explore the maritime warning mission. What is it and why was it chosen post September 11?

Chapter Four will explore the other missions that NORAD could have adopted but didn't but may still in the future, especially if technology changes make the other missions more palatable. This final chapter will also summarize the findings and outline the policy implications. Functionalism suggests that warning missions are much easier to incorporate – especially if designed as an intelligence fusion function similar to the maritime warning mission. While this will provide more domain awareness for the United States and Canada (and that assumes equal access to the information), it still leaves the defence options to national command authorities.

This means Canada will still need an agile and combat capable military if it is to keep its end of the Kingston dispensation pledge.

## CHAPTER 1 – FUNCTIONALISM AND NEOFUNCTIONALISM

Functionalism, often considered the main alternative to power politics, is about cooperation, collaboration and peace.<sup>18</sup> Arising during the interwar period, functionalism's roots have been traced to liberal ideologies of Emmanuel Kant.<sup>19</sup> Functionalist theory begins by rejecting the realist position that all cooperation must stem from acknowledging the primacy of the exclusive and competing interests of states and governments. For functionalists, the nation-state has historically been saddled with issues of high politics and national prestige which has made it ill-equipped and inefficient in welfare delivery to the public. As such, functionalism proposes a focus on "needs" and the increasing importance of a network of international or cross-national organizations each of which has a specific task in meeting those special needs whether they be technical, social or economic ones.<sup>20</sup> Taylor and Groom note that with functionalism, "... the central axiom is that form should follow function".<sup>21</sup> In other words, rather than focusing on issues of high politics with their attendant problems of competition and power dynamics between states, functionalism advances the idea that integration and a working peace between states is possible, but this can only come about as a multiplier effect of engaging in low politics. If functional organizations that provide technical and functional solutions to problems that exist over and above the competing interests of nation states which realists emphasize, functionalists see the possibility of a working peace between nation states.

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<sup>18</sup> A. J. R. Groom, and Paul Taylor, ed(s), *Functionalism: Theory and Practice in International Relations* (London: University of London Press, 1975), 1.

<sup>19</sup> Ben Rosamond, *Theories of European Integration* (New York: St. Martin's Press, 2000).

<sup>20</sup> Groom A. J. R., and Paul Taylor, "Functionalism and Theories of International Political Integration," in *Functionalism: Theory and Practice in International Relations*, ed. Charles Petland (London: University of London Press, 1975), 15.

<sup>21</sup> A. J. R. Groom, and Paul Taylor, ed(s), *Functionalism: Theory and Practice in International Relations* (London: University of London Press, 1975), 1.

David Mitrany, considered the leading proponent of functionalism,<sup>22</sup> referred to it as the “virtue of technical self determination”<sup>23</sup> in which integration between states is guaranteed by shifting focus from the value laden and highly controversial grounds of high politics to the technical aspects of a problem and seeking solutions encouraged by a variety of functionally based, cross national ties. By eschewing the quagmire that comes with cooperating on a political basis using state institutions and focusing on the “technical and practical” nature of the problem, peace, security and ultimately integration between states can be achieved.<sup>24</sup> For Mitrany, this is because states are often prone to the political which is laced with a lot of controversy and conflict. Functionalism, on the other hand requires that states are not the dominant players and that the multiplicity of actors requires all involved focus on the technical nature of the common problem and seek “the efficient provision of essential services to fulfill commonly-felt needs rather than ‘non-war’ being induced by fear of threat systems and sanctions”.<sup>25</sup> The goal for functionalists therefore becomes a robust working-peace and fully integrated world society seen as equally beneficial to all states and peoples.

Functionalism also arose from the writings of various theorists in the first half of the twentieth century. Scholars such as Leonard Woolf, Norman Angell, Robert Cecil, wrote about the various political, social and economic changes that were occurring at the time which

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<sup>22</sup> Mitrany proposed the issue of governmental functioning functions where international integration develops from the functional need to meet human needs by focusing on limited functional, technical and economic areas and employing technical knowledge and expertise. For his earlier work see, David Mitrany, and William McKean Brown Memorial Publication Fund, *The Progress of International Government* (New Haven: Yale University Press, 1933).

<sup>23</sup> David Mitrany, *A Working Peace System: An Argument for the Functional Development of International Organization* (United States: Oxford University Press, 1944), 35.

<sup>24</sup> Peter Wolf, “International Organization and Attitude Change: Re-examination of the Functionalist Approach,” *International Organization* 27, no. 3 (1973): 348-349.

<sup>25</sup> A. J. R. Groom, and Paul Taylor, ed(s), *Functionalism: Theory and Practice in International Relations* (London: University of London Press, 1975), 2.

culminated into the functionalist thinking.<sup>26</sup> Though these writers did not explicitly write or spell out the ideas about functionalism like Mitrany later did in his “A Working Peace System” published in 1943, it is easy to see how their ideas about the change that was taking place were closely linked and “clearly form a single interrelated body of ideas”.<sup>27</sup> More recent writers about functionalist thinking include Ernst B. Haas, James Patrick Sewell and Leon Lindberg.<sup>28</sup> As the focus is on functionalism and its history rather than the specific writings of each of these writers, it is helpful to draw out recurring themes in their works that now form part of the broader theory of international integration.

According to Groom and Taylor, “The first theme is that of economic development; the second is that of growth of concern with the state’s role in the provision of welfare for the individual; the third is the growing uncertainty about the role of traditional democratic institutions in the modern state and about what Professor Mitrany himself has called the crisis of ‘democratic individualism’”.<sup>29</sup> During the 1950s, interest in new prospects in the international framework of the world community weakened due to the split between the East and West and many countries struggled to regain balance and prosperity. However, efforts were intensified by various scholars seeking to advance the whole community idea. With the increasing intrusion of politics upon economics and in the lives and affairs of individuals, these scholars foresaw a

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<sup>26</sup> Leonard Woolf, *International Government* (New York: Brentano’s, 1916); Norman Angell, *The Great Illusion: A Study of the Relation of Military Power to National Advantage* (London: William Heinemann, 1912); Robert Cecil, *A Great Experiment* (London: Jonathan Cape, 1941).

<sup>27</sup> A. J. R. Groom, and Paul Taylor, ed(s), *Functionalism: Theory and Practice in International Relations* (London: University of London Press, 1975), 3.

<sup>28</sup> Ernst Haas, *Beyond the Nation-State: Functionalism and International Organization* Stanford (Calif: Stanford University Press, 1964); James Sewell, *Functionalism and World Politics: A Study Based on United Nations Programs Financing Economic Development* (Princeton, New Jersey: Princeton University Press, 1966); Leon Lindberg, *The Political Dynamics of European Economic Integration* (Stanford, California: Stanford University Press, 1963).

<sup>29</sup> Dorothy Anderson, “David Mitrany (1888-1975): An Appreciation of His Life and Work,” *Review of International Studies* 24, no. 4 (1998): 577–592.

window and began probing new ideas to look ahead to envisage new problems likely to arise in a society increasingly dominated by this encroachment. For example, Mitrany, concerned about the rights of the individual opposed by the state, investigated the solutions of other countries and looked at the Scandinavian institution of the Ombudsman.<sup>30</sup> Functionalism therefore arose from a recognition of these changes that were occurring at the time and adapts them to a theory of international integration.

### **Integration theory**

Integration is based on the notion that loyalties, expectations and political activities of various political actors from different nationalities can be shifted from the needs and interests of their respective states to a new centre or institution whose needs take precedence over those of existing national states.<sup>31</sup> Integration is triggered when states agree to work together despite implications for sovereignty. The theory assumes that “there are values which can be understood and appreciated by most people, such as those which are the product of economic development, which might be increased by greater efficiencies resulting from international cooperation.”<sup>32</sup> Interest in the welfare state was at an all-time high given how states were rife with poor socio-economic living conditions in the aftermath of World War 1. The theory of integration assumes that under such conditions, it is only proper for the state to assume responsibility for providing essential welfare services for individuals even if it requires states to give up their sovereignty to a new central authority or institution capable of meeting those needs in such a manner that its needs can override those of the individual states should the need arise. For Mitrany, it was

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<sup>30</sup> Ibid.

<sup>31</sup> Ernst Haas, *The Uniting of Europe: Political, Social and Economical Forces 1950-1957* (London: Stevens & Sons Limited, 1958), 16.

<sup>32</sup> A. J. R. Groom, and Paul Taylor, ed(s), *Functionalism: Theory and Practice in International Relations* (London: University of London Press, 1975), 3.

specifically the inability of the League of Nations to concern itself primarily with the fundamental problems facing the people and citizens at the time that led to its failure.<sup>33</sup> Had the League been preoccupied with meeting the basic needs of people that make up the various nations that make up the League - the fundamental problems- it may have been instrumental in preventing a second world war.

For Mitrany, as integration deepens, it permeates various aspects of socioeconomic, cultural and political spheres. First, the initial mutual gains from cooperation become noticeable, appreciated, and subsequently reinforced. Seeing the gains, member states involved in the cooperative activities go on to create a separate and new entity referred to as a “political community”.<sup>34</sup> The creation of the European Economic Community (EEC) is the best example. The new political community thrives on shared social ties and values.<sup>35</sup> Upon this premise, supranational institutions, that is, international institutions with jurisdiction over their member states are established primarily to address technical problems. The process involves states surrendering their sovereignty to an extent as well as decision-making authority.<sup>36</sup> The complexity of economic problems, the technical nature of handling relations between and within countries along with numerous changing needs has created an increasing demand for “the knowledge of experts than the judgements of politicians”.<sup>37</sup>

This creation of a “new actor”, however, does not presuppose integration as meaning that nation-states concerned entirely lose their sovereignty or power over state issues or those issues

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<sup>33</sup> Ibid, 4

<sup>34</sup> A. J. R. Groom, and Paul Taylor, ed(s), *Functionalism: Theory and Practice in International Relations* (London: University of London Press, 1975), 11.

<sup>35</sup> Nicolas Allarie, “Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command” (master's thesis, University of Manitoba, 2016), 32.

<sup>36</sup> Ibid.

<sup>37</sup> A. J. R. Groom, and Paul Taylor, ed(s), *Functionalism: Theory and Practice in International Relations* (London: University of London Press, 1975), 3.

that led to the establishment of the supranational institution. States have continued to play a vital role and remain the principal cum original actors accepted generally in the international society according to the formal criteria and principles guiding international cooperation.<sup>38</sup> While supranational institutions may well exercise control over member states, the extent to which such control and the areas or issues for which supranational institutions can impinge is largely within the purview of the states because states are the most important entities whose possible integration is highly valued in spite of the entrance of other actors in the current international system.<sup>39</sup>

By its nature, integration should be viewed as expanding cooperation in specific issue-areas based upon common interests and in which joint-action is desirable, thus making integration more limited in scope than it may appear initially. David Mitrany, advances this very view, arguing: “The essential principle is that activities would be selected specifically and organized separately—each according to its nature, to the conditions under which it is to operate, and to the needs of the moment.”<sup>40</sup>

A limited scope is crucial to the establishment of a technical organization as a wider and vaguer range of activities would cause states to avoid relinquishing any modicum of authority to a supranational authority.<sup>41</sup> Integration does not require a total relinquishment of sovereignty to supranational institutions. Instead, sovereignty is pooled<sup>42</sup> in such a way that each state has rights and responsibilities in the management of the supranational institution.<sup>43</sup>

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<sup>38</sup> Groom and Taylor, *Functionalism*, 10.

<sup>39</sup> *Ibid.*

<sup>40</sup> Mitrany, *A Working Peace System*, 105.

<sup>41</sup> David Mitrany, “The Prospect of Integration: Federal or Functional,” *Journal of Common Market Studies* 4, no. 2 (1965): 141.

<sup>42</sup> Each member-state subscribes to a shared sovereignty by ascribing each individual state’s sovereignty to a sole supranational entity that has the authority to make autonomous decisions with a degree of policy and decision-making authority.

<sup>43</sup> James Dougherty and Robert Pfaltzgraff, Jr., *Contending Theories of International Relations: A Comprehensive Survey* (United States: Addison Wesley Longman, 2001): 545.

Integration is stimulated by the need to perform specific functions and it is often initiated by states that are faced with issues of mutual concern often transcending geographical boundaries and require a concerted effort beyond the capability of a single state. States can initiate joint-functional undertakings in response to any number of areas, but to date have been limited generally to low politic issues, such as economics and the environment.<sup>44</sup> The difficulty the EU has had to create and execute a common foreign and defence policy is, perhaps, proof of this tenet. As these types of problems require technical solutions. The majority of governments rely on the expertise of technocrats, often working in supranational institutions on specific tasks or on an ongoing basis as the situation arises. The technical nature of the problems and the mutually beneficial purpose that the solutions generate in trade, security and environmental issues transcend territorial boundaries and require the need for an integrated group of technocrats from the states involved. Technocrats focused on specific and technical tasks can work through the technical barriers to create mutually beneficial solutions.

Functionalism's successor, neofunctionalism, provides some useful ideas on integration. Neofunctionalists emphasize the spillover effects of integration, that leads to further cooperation. Seeing the advances made from initial integration efforts, neofunctionalists envision a situation where the actors involved decide to cooperate further. The effect of the spillover effect can either functional or political in nature. Functional spillover is the idea that cooperation to create solutions in issue-areas naturally leads to the emergence of new problems and to more complicated forms of interdependence for which more cooperation is needed.<sup>45</sup> There is also political spillover, which is the notion that "the existence of supranational institutions would set

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<sup>44</sup> Nicolas Allarie, "Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command" (master's thesis, University of Manitoba, 2016), 33.

<sup>45</sup> Louise Fawcett, and Andrew Hurrell, *Regionalism in World Politics: Regional Organization and International Order* (New York: Oxford University Press, 1995).

in motion a self-reinforcing process of institution building.”<sup>46</sup> Essentially, neo functionalists see integration or further integration as inevitable because of the culture of interdependence created from previous cooperative activities. These patterns metamorphose into common norms and values that transcend the limited scope of the original functional task that led to integration in the first place. The internal dynamics makes cooperation a self-sustaining process.<sup>47</sup>

Arising mainly from the work of Ernst Haas, neofunctionalism emerged as a theory of economic integration with political spillover effects. More than a theory of regional integration primarily focused on the European Economic Community, and its successors the European Community (EC) and now European Union (EU), Ernst pointed to the theories usefulness on a larger scale both to the study of global politics and global organizations and interestingly, as a forerunner to the theory of constructivism.<sup>48</sup> Central to functionalists and neofunctionalist thought is the value of institutions to foster cooperation. Functionalists deemphasize the primacy of states as the harbingers of political decision-making power but the fact that the nation-state still exists albeit with limited powers cannot be overlooked and neofunctionalism recognizes this. As such while states can engage in cooperative arrangements, the key to successfully achieving cooperation lies in basing them on functional-technical tasks as opposed to controversy-laden political process.<sup>49</sup>

Functionalists refer to supranational institutions as “activities, organizations and loyalties transcending the existing nations.”<sup>50</sup> Supranational institutions can make independent decisions

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<sup>46</sup> Fawcett, *Regionalism in World Politics*.

<sup>47</sup> Ibid.

<sup>48</sup> Ernst Haas, *The Uniting of Europe Political, Social, and Economic Forces, 1950-1957* (Stanford, Calif: Stanford University Press, 1958).

<sup>49</sup> Nicolas Allarie, “Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command” (master's thesis, University of Manitoba, 2016), 33.

<sup>50</sup> Ernst Haas, *The Uniting of Europe Political, Social, and Economic Forces, 1950-1957* (Stanford, Calif: Stanford University Press, 1958).

with some degree of authority accorded it from the shared sovereignty pool. Functionalism has often been employed in economic and regional integration involving the cooperation of multiple states, yielding authority to a supranational authority like the EC as it emerged from those circles but increasingly the theory is being applied to defence and foreign policy relations<sup>51</sup> in the case of the binational cooperation arrangements.<sup>52</sup> The similarities being drawn are based on the assumption that like supranational institutions, binational arrangements are independent organization of technical minded individuals focused on providing a solution to issues of mutual concern that transcend traditional boundaries or borders. Like supranational institutions, binational institutions can focus on narrow issue-based areas and gain the support of member states, provide solutions based on the knowledge and expertise of technocrats. Devoid of nationalistic considerations, the experts would theoretically have more autonomy in the making decisions deemed fit to achieve the overall goal causing member states to make concessions with regards to their sovereignty.<sup>53</sup>

In addition, the spillover effect will further deepen integration for the member states in the binational arrangement. Neofunctionalists argue that deepening integration will go beyond just economic integration. It will result in the development of a 'political community'<sup>54</sup> where integration goes beyond just economic ties and further results in shared norms, values and a culture of cooperation between member states and their constituents. Even their constituents over time move from a nationalistic identity to a transnational identity, each with allegiance and

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<sup>51</sup> Allarie notes that within the academia, political scientists have limited functionalism to discussions around low politics.

<sup>52</sup> Nicolas Allarie, "Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command" (master's thesis, University of Manitoba, 2016), 35.

<sup>53</sup> Ernst Haas, *The Uniting of Europe Political, Social, and Economic Forces, 1950-1957* (Stanford, Calif: Stanford University Press, 1958), li.

<sup>54</sup> Haas, *The Uniting of Europe*, 4.

loyalty to the symbols and institutions characterizing the new identity.<sup>55</sup> Matters of defence and security can be explained by functionalism despite the murky waters of high politics because the technical experts, rather than politicians, take the lead in proffering technical solutions to issues of mutual concern to the member states, making it less likely for political debates and disagreements. If the functional-technical aspects of the cooperation are emphasized and issue areas are minimized, the likelihood of success is higher though the integration is an uphill task as politics still has a huge defining role which cannot be easily wished away.

### **Conclusion**

Functionalist, and neofunctionalist theories of cooperation can be utilized to foster a more comprehensive understanding of NORAD's maritime warning mission as with many security and defence cooperative arrangements. Within the political realm formal institutions may not be viewed favourably as cooperation would require yielding some degree of autonomy and state power to the supranational or binational institution. However, when the issue areas are minimized, there is a higher likelihood of success. There is a sense, however, when functionalism is applied in a different context such as discussions on security and defence. It must be recognized that even when the issue areas are limited to functional technical tasks requiring technical solutions, there is still no utmost guarantee that it will be viewed upon favourably by decision makers who are often saddled with balancing political concerns domestically and in cooperation with member states in a supranational or binational arrangement. When other issues such as defence arrangements during wartime versus peacetime, air domain versus land and maritime domain are considered, it could further complicate issues. Cooperating through formal institutions and the relinquishing of some degree of sovereignty and

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<sup>55</sup> Ibid, 4-5.

decision-making autonomy can be viewed as unfavorable, especially in relation to certain issue-areas or for other political considerations that must be considered. Functionalism presents a possible solution around these concerns that may limit the prospect of cooperation in some issue areas and situations. But the lingering question remains: Is functionalism sufficient as a standalone theory to explain defence arrangements like the maritime warning mission?

According to functionalists, by shifting the focus from politics to the technical and practical aspects of the functional problem, states can effectively engage in cooperative arrangements leading to mutually advantageous outcome. Clearly, functionalism answers the ‘why’ question and can therefore be applied to understanding NORAD’s maritime warning mission, but can functionalism explain the ‘what’ and ‘how’ of cooperative defence arrangements. The subsequent chapters will consider these questions but first, we turn to a history of NORAD from its origins to 9/11 in Chapter 2.

## CHAPTER 2 – The History of NORAD

Even before WWII, Canada and the United States formed an agreement to aid the other. The Kingston Dispensation pledge, coined by David Haglund,<sup>56</sup> describes the response by President Roosevelt to protect Canada should it be attacked. On August 19, 1938, while visiting Kingston, Ontario to receive an honorary degree at Queen’s University, Roosevelt made a pledge that “the US will not stand idly if domination of Canadian soil is threatened by any other empire”.<sup>57</sup> Canada’s Prime Minister, William Mackenzie King responded that Canada would take its commitment to defence seriously to equally guarantee US defence and to avoid any need to resort to external help from the United States. This pledge cemented the joint defence of North America by the United States and Canada. At the end of WWII, there was rising concern over the security of the North American continent. Before WWII, North America seemed to be far removed from the attacks from potential adversaries given the continent’s location, surrounded by three oceans and geographical isolation from the Europe.<sup>58</sup> After WWII, the geographic proximity of Canada and the United States resulted in both countries building air defences primarily to protect cities, save lives and preserve the economy as much as possible.<sup>59</sup> The array of continental system radars, doppler detectors, sub- and supersonic fighter interceptors, long- and short-range surface-to-air missiles, conventional and nuclear weapons, computers, and ground control centres provided protection for the continent but there were doubts about how

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<sup>56</sup> David Haglund, and Michel Fortmann, “Canada and the Issue of Homeland Security: Does the Kingston Dispensation Still Hold?” *Canadian Military Journal* 3, no. 1 (2002): 17–22.

<sup>57</sup> Franklin Roosevelt, “Address at Queen’s University, Kingston, Ontario, Canada.” (speech, Kingston, Ontario, August 18, 1938), The American Presidency Project, Gerhard Peters and John T. Woolley, <https://www.presidency.ucsb.edu/node/209110>.

<sup>58</sup> Nicolas Allarie, “Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command” (master's thesis, University of Manitoba, 2016), 93- 94.

<sup>59</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston. Ont.: Queen’s Centre for International Relations & Defence Management Studies, 2007), 15.

much protection these systems could provide.<sup>60</sup> There were also fears about the Soviets acquiring similar advanced military capabilities. When the US Joint Chiefs of Staff released their 1957 *Statement of Policy on Continental Defence*, looming over continental defence calculations was the imminent threat that the Soviets would soon acquire Intercontinental ballistic missiles (ICBMS) with which it could strike North America.<sup>61</sup>

The imminent danger posed by a possible Soviet acquisition of intercontinental bombers to the North American continent resulted in different courses of action. First, the US air defenders were opposed to the notion that an active air defence was worthless and too expensive because the last thing they wanted was for Soviet bombers to be allowed to attack the US freely without any effort to defend the homeland.<sup>62</sup> Developing a defensive capability was paramount as the lethality of a possible attack would result in damaging consequences for all American society and history. The US Air Force (USAF) believed in the possibility of fighting through every means to not only limit the damage to American socioeconomic and industrial life, but also advance a defence capability by destroying as many Soviet bombers as possible while preserving America's arsenal of nuclear weapons and intercontinental bombers to preserve its first (and later, second) strike capabilities.<sup>63</sup> The second course of action is tied to the first in that both became fundamental to the North American doctrine of nuclear deterrence which would guide the use (perhaps, the non-use) of nuclear weapons in today's world. This option involved the development of an offensive capability to attack any potential aggressor either pre-emptively or in retaliation for an attack which the US actually did by amassing an extensive armament of

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<sup>60</sup> Jockel, *Canada in NORAD*.

<sup>61</sup> *Ibid*, 18.

<sup>62</sup> *Ibid*, 16.

<sup>63</sup> Nicolas Allarie, "Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command" (master's thesis, University of Manitoba, 2016), 40.

nuclear weapons and intercontinental bombers.<sup>64</sup>The US thus, developed a second-strike capability, and continued to develop new and improved nuclear weapons and delivery methods.<sup>65</sup>

The Canada-US defence relationship emerged from the recognition of Canada's strategic importance to the defence of the North American continent. With the main threat being the Soviet Union and a possible nuclear threat materializing on the continent, formulating an air defence strategy was the goal. If US Strategic Air Command (SAC) could prove that it was able to secure the continent, the Soviets might be deterred from attacking the continent. In 1957, the United States concluded that "to the extent the Soviets believe the North American continental defense system is effective, this will constitute one of the key deterrents to an attack on North America."<sup>66</sup> Their statement went on to set several goals for continental defence to be pursued "in collaboration with Canada and other free world nations."<sup>67</sup> Among other goals, the policy statement stated that:

- a. Contributing to deterring Soviet aggression
- b. Providing sufficient warning to alert the nation to the maximum state of readiness possible and to permit the launching of alert nuclear forces;
- c. Preventing the carrying-through of an attack of such effectiveness that US national survival would be threatened;
- d. So minimizing the effect of any Soviet attack as to permit an immediate and effective counter- offensive and the successful prosecution and completion of a general war;....<sup>68</sup>

Beginning in 1945, the Canadian Arctic was recognized as the most probable path of attack that an European or Asian adversary would take to invade North America.<sup>69</sup> While the US

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<sup>64</sup> Allarie, *Shelf Life Extended*, 40.

<sup>65</sup> *Ibid*, 40

<sup>66</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston. Ont.: Queen's Centre for International Relations & Defence Management Studies, 2007), 17.

<sup>67</sup> *Ibid*, 17.

<sup>68</sup> JCS 1899/373, "Statement of Policy on Continental Defense, "December 13 1957. National Archives, Record group 218, Files of the Joint Chiefs of Staff, CCS 381 US (5-23-46). Section 99, Quoted in Joseph Jockel, *Canada in NORAD, 1957-2007: A History*. Kingston, Ont: Queen's Centre for International Relations, 2007, 17.

<sup>69</sup> David Cox, *Canada and NORAD, 1958-1978: A Cautionary Retrospective*, Aurora Papers 1, (Canada: The Canadian Centre for Arms Control and Disarmament, 1985), 6.

forces to the northeast and northwest might be the first to engage Soviet bombers, the main continental air defence battle was expected to begin in southern Canada using Canadian interceptors and US interceptors which would fly into Canadian skies or which, in anticipation of impending attack, would be temporarily located to Canadian airfields.<sup>70</sup> An effective defence strategy to protect the US homeland meant that any threat from the Soviet bombers had to be far removed from the ultimate targets in the US such as populated centres, industrial and economically viable capacity and various military installations. Inevitably, Canada was the first point of call to ward off the threat from a nuclear adversary as the distance between both countries is such that Canada provided a safe distance geographically away from the Soviet's main targets in the US.

This meant that the United States had more protection as the "killing area" located in the Canadian south could be pushed as far as possible to the north, thus contributing to the perimeter defence of the United States.<sup>71</sup> By engaging in the north, the continental air defenders could establish defence in depth, subjecting the Soviet bombers to repeated attacks before they reached their main targets in the United States. The threat from a nuclear adversary required a coordinated response and synergy focused squarely on the functional-technical tasks for the defence of the North American continent.

First, the United States needed to fly towards and attack Soviet bombers before they reached key US population and economic centres and military installations. To successfully defend the homeland, modern air defence fighters required ground control radar coverage<sup>72</sup> located within Continental Air Defence Command (CADC). The McGill and Pinetree Lines -

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<sup>70</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston. Ont.: Queen's Centre for International Relations & Defence Management Studies, 2007), 10.

<sup>71</sup> Jockel, *Canada in NORAD*, 10.

<sup>72</sup> *Ibid*, 10

providing ground radar coverage - was in place in much of Canada beginning in 1954 as a result of a 1951 Canada-US agreement whereby the US paid \$300 million of the \$450 million initial construction cost (for the Pinetree Lines)<sup>73</sup> and operated some of the radar stations.<sup>74</sup> This interdependence highlights the relationship that existed between offensive and defensive capabilities as it relates to the strategy of nuclear deterrence because, “never before in the history of combat aviation was the success of a mission so dependent on ground-air teamwork as it was in air defense operations”.<sup>75</sup>

As General Patridge (USAF) of the US Air Defense Command notes: “as a matter of doctrine, we believe that the best defence is a good offense and we believe that our primary mission in the Air Defense Command is to defend the bases from which the Strategic Air Command is going to operate.”<sup>76</sup> While early warning was important for the defence of the entire US homeland and populace, it was ultimately for the strategic purpose of preserving SAC from an attack because SAC was not only for retaliatory and second strike purposes but also “the force upon which the policy of deterrence depended”.<sup>77</sup> The point was that if SAC was demonstrably secure, the Soviets might be deterred from attacking in the first place.

With knowledge that SAC would be privy to information of an imminent attack due to the visual confirmation that would be provided by the warning signals and interceptors, the Soviets might be deterred from attacking in the first instance. In addition, the presence of active air defenders would further consolidate deterrence as the damage to the US homeland would be

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<sup>73</sup> Stephen Harris, "Early-Warning Radar," *The Canadian Encyclopedia*, Historica Canada. Article published February 07, 2006; Last edited March 04, 2015, <https://www.thecanadianencyclopedia.ca/en/article/early-warning-radar>

<sup>74</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston. Ont.: Queen's Centre for International Relations & Defence Management Studies, 2007), 10.

<sup>75</sup> *Ibid*, 10

<sup>76</sup> *Ibid*, 10

<sup>77</sup> Jon McLin, *Canada's Changing Defense Policy, 1957-1963: The Problems of a Middle Power in Alliance*, (United States: The John Hopkins Press, 1967), 28.

limited if deterrence failed, hence, strengthening deterrence further. SAC bases could be protected, and if the Soviets could be persuaded that an attack on American society and economy might not be successful because of North American air defence, they might be further dissuaded from attempting to attack.<sup>78</sup>

Second, there was the need for unconstrained access to both Canadian and American airspace in which the US and Canadian air forces could both pursue attacking intercontinental bombers over each other's territory without issue or delay.<sup>79</sup> In an emergency, it would be unthinkable that cross border air defence operations would be met with hindrances from each other's air forces. Concurrent to that was the ability for Canada and the US to be able to station its aircraft on bases in each other's territories. This was particularly important in the event of an emergency to minimize the distance to be traveled to meet the threat and, as such, maximize the distance and time between Soviet bombers and their targets.<sup>80</sup> Cooperation between the Canadian and US air forces became increasingly imperative as a result.

Third, for the cooperation to work, it required the creation of a command-and-control structure conducive to tie all of these components together by coordinating an effective, efficient, and quick air defence response between Canada and the United States.<sup>81</sup> Ottawa and Washington would have to find ways to accommodate their increasing interoperability, forge direct and more permanent ties for officers of both the USAF and RCAF to coordinate cross border defence arrangements, and establish an effective system of continental air defence and defence in depth.

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<sup>78</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston. Ont.: Queen's Centre for International Relations & Defence Management Studies, 2007), 16.

<sup>79</sup> Nicolas Allarie, "Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command" (master's thesis, University of Manitoba, 2016), 43.  
[https://mspace.lib.umanitoba.ca/bitstream/handle/1993/31199/Allarie\\_Nicolas.pdf?sequence=1](https://mspace.lib.umanitoba.ca/bitstream/handle/1993/31199/Allarie_Nicolas.pdf?sequence=1)

<sup>80</sup> Allarie, *Shelf Life Extended*, 42.

<sup>81</sup> *Ibid.*

For defence in depth to be successful, Canadian territory and Canada-US air defence cooperation became important. The ultimate goal of continental defence required a focus on the functional-technical tasks to establish a formidable air defense strategy and demonstrates how NORAD as an institution emerged from a gradual but incremental process along functional technical lines. Being the paramount air defence arrangement between the United States and Canada, NORAD was saddled with the responsibility to control and command operations for continental defence along less contested technical lines. Functionalism, as a theory, provides credence to the idea that the functional-technical problems behind how to cooperate and best respond to this novel airborne threat ultimately dictated the form this cooperation would eventually settle upon: a binational institution. Creating a radar system in the Canadian north, with the need for unimpeded access to Canadian airspace and territory to intercept Soviet intercontinental bombers, and the subsequent problem of how to facilitate operational control over the air defence response of two states drove the United States to secure the participation of Canada.

Functionalism argues that cooperation tends to first find credence in and emerge from a focus on functional-technical problems, rather than from political decision makers. While, this pattern is recurrent throughout the early days of US-Canada cooperation in continental air defence, the fears expressed about Canadian sovereignty were real and could not be totally ignored, though somewhat exaggerated by sovereigntists. The effort to better coordinate the defence of the continent by Canada and the United States began with the establishment of the Permanent Joint Board on Defence (PJBD) in 1940.<sup>82</sup> The PJBD served as the highest bilateral

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<sup>82</sup> Joseph Jockel, "The Canada-United States Military Co-Operation Committee and Continental Air Defence, 1946," *The Canadian Historical Review* 64, no. 3 (1983): 352–377.

defence forum<sup>83</sup> between Canada and the United States, providing both governments with the views of senior military officials and diplomats.<sup>84</sup> Despite the success of the PJBD, lessons from the Second World War also informed Canadian decision-makers about the need to be cautious in dealing with the United States.<sup>85</sup> Jockel notes that early on in the war, the United States stationed a formidable number of forces on Canadian soil as part of a joint effort to build the Alaskan Highway and man the Northeast Staging Route to Europe.<sup>86</sup> Though, there was grounds for the deployment of American forces on Canadian soil, Canadian officials worried about the sovereignty concerns it portended. Canadian High Commissioner in London, Vincent Massey, shared this sentiment in his submission that while Canada had focused too much on the war effort in cooperation with the Americans, there was the threat arising from the deployment of US forces on Canadian soil “as if they owned the country.”<sup>87</sup> These fears however, abated when Ottawa was assured that American forces would withdraw at the end of the war.<sup>88</sup> More disturbing for Canadian officials was the ease with which the American forces were deployed to Canada. It signaled the need for concrete steps to prevent a similar strain on Canadian sovereignty.<sup>89</sup>

The Soviets’ introduction of high-performance bombers in May 1954, the upgrade of their nuclear inventory from atomic weapons in the twenty-kiloton range to hydrogen bombs with megaton yields capable of wiping out a small city, only exacerbated the tension in the North

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<sup>83</sup> The PJBD served as a crucial link between Ottawa and Washington for coordinating defence production and infrastructure projects. For more on the PJBD see, Peter Haydon, *The 1962 Cuban Missile Crisis: Canadian Involvement Reconsidered*, (Toronto: Canadian Institute of Strategic Studies, 1993).

<sup>84</sup> Philippe Lagassé, “Northern Command and the Evolution of Canada-US Defence Relations,” *Canadian Military Journal* 4, no. 1 (2003): 15–22.

<sup>85</sup> Lagassé, *Northern Command*.

<sup>86</sup> Joseph Jockel “Old Fears and New: Canadian and North American Air Defense” quoted in Stephen Cimbala, *Strategic Air Defense* (Wilmington: Scholarly Resources Inc., 1989), 47.

<sup>87</sup> Jockel, *Old Fears and New*, 48.

<sup>88</sup> *Ibid.*

<sup>89</sup> *Ibid.*

American security environment.<sup>90</sup> As early as August 21, 1949, the Soviets tested their first atomic weapon, far earlier than majority of US intelligence had predicted.<sup>91</sup> While the US forces could have engaged Soviet bombers from the continental northeast and the northwest first, the main continental battle was expected largely to begin from the southern fringes of the Canadian border using Canadian and US interceptors to ward off the attack before it reached the US homeland. Such an attack required not just fighter pilots transporting bombers to engagement or detonation points but also, advanced early warning capabilities about an impending attack.

The actions of the Soviets, coupled with increased East-West tensions in Europe, convinced the Canadian government that it should construct a radar line to provide early warning of an attack.<sup>92</sup> The radar installations in the Canadian north, which involved an extensive collaborative effort between the Canadian and United States government, provided early warning about possible intruding Soviet intercontinental bombers so that SAC would be well prepared to get its bombers air borne. Though the radars, called the “Pinetree Line”, became fully operational in 1955 in Canada, they were actually an extension northward of the vast “Permanent” radar system which the United States had put in place on much of its own territory. The new Canadian-based radar line provided additional early warning over an extensive largely contiguous ground control environment for Canadian and US fighter aircraft to be guided towards attacking Soviet bombers.<sup>93</sup> This extension of the US permanent radar system included “thirty-one radar stations in Canada,” with the USAF paying for the construction and equipping

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<sup>90</sup> Ibid

<sup>91</sup> Arkadii Kruglov, *The History of the Soviet Atomic Industry* (Canada: Taylor and Francis, 2002), 124.

<sup>92</sup> Stephen Harris, "Early-Warning Radar," *The Canadian Encyclopedia*, Historica Canada. Article published February 07, 2006; Last edited March 04, 2015, <https://www.thecanadianencyclopedia.ca/en/article/early-warning-radar>

<sup>93</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston. Ont.: Queen’s Centre for International Relations & Defence Management Studies, 2007), 10.

of eighteen.<sup>94</sup> For most of the 1950s, the Pinetree/Permanent radars provided first the tactical warning that a Soviet attack had begun allowing the USAF a window of about one to two hours to send only about forty percent of its fighters in the air.<sup>95</sup> The RCAF on the other hand, would only be able to get a lower percentage of its fighters airborne given the proximity of their location to the edge of the radars.

The US quickly recognized the need for an early warning system as it was obvious that the Soviet Union had acquired the military capability, including long range bombers and atomic weapons, with which it could use to destroy important targets in the United States and Canada. As General Earl Partridge, Commander-in-chief of the North American Air Defence Command noted in 1957, “Now we can’t just sit quietly by and let them do this without doing our best to oppose them, and we play for extremely high stakes. If you shoot down a bomber coming in – one that was going to hit a big city like Washington – you save billions of dollars and maybe a million lives by just shooting down one bomber”.<sup>96</sup>

Another functionally based study was sponsored by the government of Canada at McGill University on a technologically novel unmanned radar system. The Mid-Canada line, or “McGill Fence” (named after the university) was constructed by the Canadian government along the 55<sup>th</sup> parallel using technology developed in Canada.<sup>97</sup> Canadian government at the time took control of the project to provide a significant contribution to continental air defence in terms of equipment, construction and costs<sup>98</sup> and it was significant for two reasons. First, the cost of the

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<sup>94</sup> Kenneth Schaffel, *The Emerging Shield: The Air Force and the Evolution of Continental Defense, 1945-1960* (United States: University Press of the Pacific, 2004), 70.

<sup>95</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston, Ont.: Queen’s Centre for International Relations & Defence Management Studies, 2007), 11.

<sup>96</sup> Jockel, *Canada in NORAD*, 16.

<sup>97</sup> *Ibid.*

<sup>98</sup> Desmond Morton, *A Military History of Canada* (Edmonton: Hurtig Publishers, 1985), 240; Robert Bothwell, *Alliance and Illusion: Canada and the World, 1945-1984* (Vancouver: UBC Press, 2007), 117.

McGill Line was significantly lower than that of the DEW Line, which the Americans eventually paid for.<sup>99</sup> Second, to maintain control and protect Canadian sovereignty, Ottawa was convinced to participate in constructing the Mid-Canada Line because resisting a project which Washington had deemed essential towards protecting the US homeland and her citizens and, ultimately, continental defence, would be futile.<sup>100</sup> Canada saw the wisdom of constructing the Mid-Canada line because it was cheaper than an arctic chain and avoided the the troublesome issue of American presence on Canadian soil.<sup>101</sup>

The Mid-Canada line built at a total cost of \$250 million<sup>102</sup>, became operational in 1958, was run concurrently with the Pinetree Line Summer Study. The Mid-Canada Line provided more Canadian radar coverage and reduced the exposure of the Permanent system which was in proximity to the Canada-US border to the northeast where most of US industrial capacity is situated. The Mid- Canada Line was necessary to provide more radar coverage from the Canadian side given the detonation of the Soviets' nuclear bomb at the time.<sup>103</sup> It depended on a Doppler effect, which is the change in the frequency of radiation directed along a beam transmitted from one station to the next in the line so that it would signal if a rapidly moving object like an intruding aircraft entered the area.<sup>104</sup> The Mid-Canada Line would send a signal across the line somewhere between both stations without the need for a staff to constantly monitor the radar for movement.<sup>105</sup>

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<sup>99</sup> Jockel: *No Boundaries Upstairs*, 82.

<sup>100</sup> Ibid, 81 – 82.

<sup>101</sup> Stephen Harris, "Early-Warning Radar," *The Canadian Encyclopedia*, Historica Canada. Article published February 07, 2006; Last edited March 04, 2015, <https://www.thecanadianencyclopedia.ca/en/article/early-warning-radar>

<sup>102</sup> Ibid.

<sup>103</sup> Steven Holloway, *Canadian Foreign Policy: Defining the National Interest*. Peterborough (Ont.: Broadview Press, 2006).

<sup>104</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston. Ont.: Queen's Centre for International Relations & Defence Management Studies, 2007).

<sup>105</sup> Jockel: *Canada in NORAD, 1957-2007: A History*, 17.

A more dramatic improvement was the Distant Early Warning (DEW) Line. The Lincoln Summer Study Group originally called for the construction of two DEW Lines, one located in the high north at the 75<sup>th</sup> parallel and the other farther south to act as a backup at the 70<sup>th</sup> parallel.<sup>106</sup> The DEW was eventually built by the United States across the high Canadian and Alaskan Arctic at the 70<sup>th</sup> parallel and operated by Canada. The DEW line provided well over four hours of warning compared to the Mid-Canada Line's two hours of warning. This improvement meant more fighter aircrafts could be readied and airborne (up to 70 percent of US fighters) in time to engage over the Canadian south. The line, which was operational in 1957, was a drastic upgrading from the Pinetree and Mid-Canada Line as construction and operation costs were kept down by the more recently developed technology of "aural presentation" of radars.<sup>107</sup> Cooperation between the USAF and RCAF became increasingly inevitable as a result.

By the mid-1950s such cooperation was already far advanced, as the two air forces came to see the air defence of North America more and more as a problem to be tackled jointly with resources which were becoming increasingly intertwined.<sup>108</sup> There were fears emanating from Canada, particularly within the political circles, that such cooperation would erode Canadian sovereignty. In particular, the introduction of the first US nuclear air defence weapon a few years later, the MB- 1 or "Genie" with an explosive yield of 1.5 to 2 kilotons, lethal enough to envelope upon explosion of a mile across and a mile and a half deep, generated huge debate.<sup>109</sup> The controversy around Canada's participation in nuclear weapons' armament in the event of a

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<sup>106</sup> Jockel, Joseph. *No Boundaries Upstairs: Canada, the United States, and the Origins of North American Air Defence, 1945-1958*, (Vancouver: University of British Columbia Press, 1987), 66.

<sup>107</sup> Jockel: *No Boundaries Upstairs*

<sup>108</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston. Ont.: Queen's Centre for International Relations & Defence Management Studies, 2007), 11.

<sup>109</sup> Jockel: *Canada in NORAD, 1957-2007: A History*, 12.

probable, imminent or actual attack by a Soviet aircraft where US fighter aircraft carrying Genies could fly from their US bases into southern Canadian airspace, generated enormous controversy.

To lessen such fears, the Canadian government held title over all radar stations on its territory and the right to crew them beginning with the Pinetree Line.<sup>110</sup> Similarly, the DEW Line, when it was formally established by an exchange of diplomatic notes on 5 May 1955, included several provisions and conditions to clearly reinforce and protect Canada's sovereignty, rights, and control in the Canadian Arctic.<sup>111</sup> While there were numerous efforts at ensuring sovereignty of Canada was protected, it was the focus on the functional-technical tasks and solutions, unhindered by the often-ambiguous political maneuverings, that drove the need for the joint development and operation of a series of radar lines in the Canadian north between Canada and the United States. Notably, the agreement was a product of defence and military concerns on each side of how to respond effectively to a nuclear attack from the Soviet Union utilizing intercontinental bombers.<sup>112</sup>

Further, knowing that it could not construct and crew a series of radar lines itself, and that the United States would continue with continental defence with or without its participation, Canada opted to participate in a manner that would protect and reinforce its sovereignty and command and control over its territory, while keeping the costs incurred to a minimum.<sup>113</sup>

With the growing Soviet threat, it was not long until the need for functional technical considerations to be given priority by the military on both sides. In 1951 RCAF liaison officers

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<sup>110</sup> Jockel: *No Boundaries Upstairs*, 46.

<sup>111</sup> "Exchange of Notes Between Canada and the United States of America Governing the Establishment of a Distant Early Warning System in Canadian Territory," conclusion date: May 5, 1955, *Canada Treaty Series* no. 8. <https://www.treaty-accord.gc.ca/text-texte.aspx?id=101010>.

<sup>112</sup> Nicolas Allarie, "Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command" (master's thesis, University of Manitoba, 2016), 50.

<sup>113</sup> *Ibid.*

took up duties at USAF air defence command headquarters.<sup>114</sup> Three years later, the national air defence commanders of both countries created a joint planning group, Continental Air Defense Command (CONAD) which set itself up, on a permanent basis, at the Colorado headquarters and was given the task of drawing up one common plan for the air defence of the entire North American continent.<sup>115</sup>

Ultimately, it was the USAF and RCAF that pushed for a joint command in 1954 by first identifying the problem of having forces deployed to defend against and attack in one direction but receiving directions from different commanders and the serious practical limitations for training and response in the event of an actual air battle.<sup>116</sup> The US military first took steps to address the issue of coordination within its own national air defences, which arose from the interservice division of missions between the air force, which was responsible for fighter aircraft and longer-range missiles, the army, which was responsible for shorter range missiles, and the navy, which had radar picket ships providing offshore warning. Particularly troubling were the disputes between the air force and the army's air defence commands over how missiles and fighter interceptors should be coordinated in the event an air defence battle ever had to be fought.<sup>117</sup>

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<sup>114</sup> Jockel: *Canada in NORAD*, 12.

<sup>115</sup> Ibid, 12, CONAD—the Continental Air Defense Command—which reported to the Joint Chiefs of Staff and included headquarters representation from the Army Anti-Aircraft Command (ARAACOM, later ARADCOM) and Naval Forces CONAD (NAVFORCONAD). Then, in turn, CONAD became the United States component of NORAD (North American Air Defense Command) through a binational agreement with the Canadian Government in 1957, with ADC/ADCOM remaining as the USAF element in both. For details see Kenneth Schaffel, *The Emerging Shield: The Air Force and the Evolution of Continental Defense, 1945-1960* (United States: University Press of the Pacific, 2004), 241–254.

<sup>116</sup> Ibid; Foulkes testimony in the House of Commons, Special Committee on Defence, Minutes of Proceedings and Evidence, 22 October 1963, 510.

<sup>117</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston, Ont.: Queen's Centre for International Relations & Defence Management Studies, 2007), 20.

The solution to this problem was to appoint a single commander which the Joint Chiefs of Staff did and effectively put the air force in charge. The commander of the USAF Air Defense Command was given the authority over the other military units highlighting a spillover effect into the national defence system of the countries involved where an unintended effect arises from the need to ensure defence depth and continental defence and security. The commander of the USAF Air Defense Command was given additional responsibilities as commander-in- chief of the newly created, joint Continental Air Defense Command (CONAD), again with command over the defence efforts of all three US services.<sup>118</sup>

General Earle Partridge, CONAD's second commander-in-chief (CINCONAD), explained to a Congressional Committee the difference in how CONAD was organized compared to the usual US command arrangements. The Army, Navy and Air Force provided units for Air defence purposes and orders were issued directly to the units by the CINCONAD and their subordinate commanders without a need to issue such commands through the service air defence commands.<sup>119</sup> While Partridge as CINCONAD had operational control over the various air defence units, command over them remained with their units. In other words, CONAD had operational control over certain aspects like the authority to specify states of air defence alerts, establishing battle procedures, and directing the tactical air battle should one ever occur while matters such as training, discipline or logistics were left to the Army, Navy and Air Force service units as such fell under the right to command.<sup>120</sup>

On the Canadian side, the distinction between operational command and control that had been worked out in CONAD could be especially useful.<sup>121</sup> The command structure built around a

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<sup>118</sup> Jockel, *Canada in NORAD*.

<sup>119</sup> *Ibid.*

<sup>120</sup> *Ibid.*

<sup>121</sup> *Ibid.*

joint air defence command fit in perfectly with the RCAF Air Defence Command as the control unit.<sup>122</sup> In addition, only the RCAF would participate in CONAD. The Royal Canadian Navy had no continental defence radar ship and therefore no active role in the continental defence architecture at the time.<sup>123</sup> Similarly, the Canadian Army had no part in continental air defence.<sup>124</sup>

The RCAF's agreement to the joint structure can also be attributed to its limited capabilities in the ownership of bombers compared to its US counterparts thus, highlighting another example of how functionalism can explain Canadian defence choices. After World War II, the RCAF had been obliged to shed its hopes of holding on to a strategic bombing role and instead, concentrated on fighter aircraft with air defence as its prime combat mission.<sup>125</sup>

Though CONAD had been transformed to an interservice command, it was still air force centric and natural that USAF and RCAF saw eye-to-eye on most issues in Colorado Springs compared to their army colleagues who struggled with the USAF over surface to air missiles.<sup>126</sup> It was this cooperation that allowed the USAF and RCAF to extract their desired functional arrangement that would provide for a more efficient and quick air defence response while avoiding the creation of a command that was still viewed as politically untenable.

To further the goal of an effective air defense mechanism while navigating unstable political waters, the USAF and RCAF settled for a less controversial single commander to manage air defence relations between both countries as opposed to a joint command still viewed

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<sup>122</sup> Ibid.

<sup>123</sup> Ibid.

<sup>124</sup> Ibid; Jockel notes that "The army had established an Anti- Aircraft Command in 1949 and located its headquarters close to the RCAF's Air Defence Command in St. Hubert. But it was later closed between 1954 and 1955 when the army determined that its own efforts towards contributing to the RCAF's area air defence were of little value to the defence of Canadian cities.

<sup>125</sup> Ibid.

<sup>126</sup> Ibid.

with skepticism outside Colorado Springs. From the outset, the US Joint Chiefs were not inclined initially because, from their perspective, in spite of the robust military-to military cooperation between both countries, military defence cooperation since World War II had not gone smoothly once Canadian diplomats and politicians were involved.<sup>127</sup> As such they were weary of a joint Canada-US command that could get muddled up in the military planning by civilians on the Canadian side who had sovereignty concerns with such a command and were more inclined to NATO and might, therefore, try to subordinate a Canada-US command to it.<sup>128</sup>

The CINCADCANUS proposal was signed quickly once the study group presented its findings in early 1957. The US Chiefs, Canadian Chiefs and US Secretary of Defense Wilson approved the proposal.<sup>129</sup> Getting an approval from the Canadian government was more complicated due to an impending election. The outgoing St Laurent government did not get to approve the proposal as the Liberals lost the general election in June 1957. The election had caused the Liberals to remove the issue all together from the agenda for their last Cabinet Defence Committee meeting.<sup>130</sup> With a new Conservative government under Diefenbaker in place due to an unforeseen election outcome, General Charles Foulkes, chairman of the Canadian Chiefs of Staff Committee pressed harder to get the proposal approved and even admitted that “... we stamped the incoming government with the NORAD agreement.”<sup>131</sup> While the proposal was still the CINCADCANUS agreement at this point, Foulkes downplayed its significance by explaining to the Prime Minister and his defence minister that it had little political relevance, was important to further strengthen Canada-US post Cold War military

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<sup>127</sup> Ibid.

<sup>128</sup> Ibid.

<sup>129</sup> Ibid

<sup>130</sup> Ibid

<sup>131</sup> Foulkes testimony in the House of Commons, Special Committee on Defence, Minutes of Proceedings and Evidence, 22 October 1963, 510 quoted in Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston, Ont.: Queen’s Centre for International Relations & Defence Management Studies, 2007), 24.

defence cooperation and ultimately, the operational integration and establishment of a new headquarters were an already “agreed concept” and to be improved upon “present arrangements”.<sup>132</sup>

Essentially, Diefenbaker signed the proposal thus, obtaining the approval in his office without seeking any endorsement from the Cabinet Defence Committee (which had not yet been constituted), nor the full Cabinet except for an order-in-council appointing Canadian Air Marshall Slemon as the deputy commander at the headquarters.<sup>133</sup> Also, it is worth noting that while Diefenbaker was the acting Secretary of State for External Affairs, he did not consult with officials of the Department of External Affairs before giving his approval.<sup>134</sup>

On 1 August 1957, a joint press release announcing the new arrangement followed, however, the announcement left out the use of “CINCADCANUS” to describe the new commander and his headquarters.<sup>135</sup> Instead reference was made to “an integrated command” and used interchangeably with “integrated headquarters” and “joint headquarters”.<sup>136</sup> It was no slip that eventually CINCADCANUS was omitted entirely as General Partridge confirmed that he did not like the title and recommended the US and Canadian chiefs to change it. In fact, Partridge suggested a change to the North American Air Defense Command (NORAD) because, with the integration of a binational “command”, he felt it should be addressed as such.<sup>137</sup> With

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<sup>132</sup> Ibid, 24-25.

<sup>133</sup> Ibid, 25.

<sup>134</sup> Ibid, 25.

<sup>135</sup> Continental Air Defense Command and North American Air Defense Command, *Historical Summary, July-December 1957*, Directorate of Command History, 18, [https://www.northcom.mil/Portals/28/Documents/Supporting%20documents/\(U\)%20500427%20-%20159%20pgs%20\(Redacted\)%20Subject%20-%20CONAD-NORAD%20History%20Jul%2057%20-%20Dec%2057.pdf](https://www.northcom.mil/Portals/28/Documents/Supporting%20documents/(U)%20500427%20-%20159%20pgs%20(Redacted)%20Subject%20-%20CONAD-NORAD%20History%20Jul%2057%20-%20Dec%2057.pdf).

<sup>136</sup> US Department of State Bulletin, XXXVII, 19 August 1957, 306 quoted in Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston. Ont.: Queen’s Centre for International Relations & Defence Management Studies, 2007).

<sup>137</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston. Ont.: Queen’s Centre for International Relations & Defence Management Studies, 2007), 25.

approval already in hand from Washington and Ottawa and with arrangements now safely in military-to-military channels, the Chiefs went along with his recommendations and dropped the notion of commander without a command. NORAD eventually stood up in Colorado Springs in September 1957 with General Partridge as both CINCONAD and CINCINORAD while Slemon as the Deputy of DCINCINORAD.<sup>138</sup> However, the exchange of diplomatic notes formally establishing NORAD did not occur until May 1958 after numerous efforts by the Diefenbaker government to make NORAD an arm of NATO was rebuffed by the US Chiefs.<sup>139</sup>

Instead of establishing the continental defence organization as an alliance through the use of a treaty, the NORAD agreement was based on an informal exchange of diplomatic notes set to expire in ten years unless brought to an end earlier by mutual consent.<sup>140</sup> The agreement also codified the most important NORAD arrangements that were mostly already in place by setting out the terms of reference and stating the periodic renewal timelines and the conditions under which such renewals would occur and how the relationship between both countries would evolve to per assessment of the military about the continental defence. This incremental process of evolution from the initial announcement of NORAD's establishment to the exchange of diplomatic notes to the use of periodic renewals based on threat assessment to meet changing priorities for continental defence underscores the functional driver behind NORAD as a product incremental cooperation in the technical elements of continental air defence.<sup>141</sup> NORAD was therefore a functional solution led by the USAF and RCAF to address the common problems in continental air defence that necessitated joint-action. The action, however, gave rise to new and

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<sup>138</sup> Jockel, *Canada in NORAD*.

<sup>139</sup> *Ibid*, 35.

<sup>140</sup> *Ibid*

<sup>141</sup> Nicolas Allarie, "Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command" (master's thesis, University of Manitoba, 2016).

novel issues. As these new issues were rooted in the initial common air defence problems plaguing Canada and the US the logical response was to address these new emerging problems with more cooperative undertakings. Eventually, air defence cooperation reached a point of such integration and mutual dependence that a joint-command akin to a formal institution was perceived to be the ideal mechanism by which to coordinate and control these functional-technical tasks.

In the 1960s, interest in the mounting threat of Soviet ballistic missiles shifted NORAD's attention away from the intercontinental bomber. As a result, the need for active defences decreased and the Cold War found NORAD shifting its emphasis to missile warning, space surveillance and target identification because deterrence became the primary strategic threat as opposed to defence.<sup>142</sup> By the late 60s, the United States and Canada began reducing capacity and capability of air defences<sup>143</sup> and this continued into the 1970s with policy makers on both sides of the border re-evaluating the effectiveness of the air defence system. The evolving threat environment caused NORAD to expand its missions of air warning and defence to include tactical warning and assessment of possible air, missile, or space attacks on North America so that the 1975 NORAD Agreement acknowledged these extensions of the command's mission.<sup>144</sup> By 1981, NORAD was renamed North American **Aerospace** Defence Command (replacing 'Air' with 'Aerospace') to reflect the new roles NORAD took on.

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<sup>142</sup> Daniel Dosé. *NORAD, A New Look* (Kingston, Ont: Centre for International Relations, Queen's University, 1983)

<sup>143</sup> USAF interceptor forces, the reduction of various portions of radar network to a total obsolescence characterized the late 70s as it became clear that new technology was required to deal with the new missile threat and it was uneconomical to operate the radar systems. See North American Aerospace Defense Command. Office of History. *A Brief History of NORAD: As of 31 December 2013*, 6-7, [https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20\(current%20as%20of%20March%202014\).pdf](https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20(current%20as%20of%20March%202014).pdf).

<sup>144</sup> North American Aerospace Defense Command. Office of History. *A Brief History of NORAD: As of 31 December 2013*, [https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20\(current%20as%20of%20March%202014\).pdf](https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20(current%20as%20of%20March%202014).pdf).

To meet the challenges of the 1980s, NORAD was “modernized”. The modernization program signed in 1985 involved the replacement of the aging DEW Line radar system with an improved Arctic radar line called the North Warning System (NWS), basing USAF E-3 Airborne Warning and Control System (AWACS) aircraft in Canada, deploying over-the-horizon backscatter (OTH-B) radar and the assignment of newer USAF aircraft, specifically F-15s, F-16s, and CF-18s, to NORAD.<sup>145</sup>

In the late 1980s, the NORAD mission was further expanded to include aerial drug interdiction just as the Soviet threat began to diminish. President Reagan signed legislation that involved the US Department of Defense, and specifically NORAD, in the campaign against drug trafficking on September 29, 1988.<sup>146</sup> Canada’s Chief of Defence Staff (CDS) approved the use of NORAD assets in the performance of the United States drug interdiction mission on February 4, 1989 after which the Canadian government officially agreed to the mission.<sup>147</sup> NORAD’s role in this period was limited to detecting and tracking aircraft suspected of transporting drugs and then reporting them to law enforcement. Drug trafficking presented a mutual problem requiring a functional solution as suspected aircraft crossing into the United States and Canada without properly documented and filed flight plans or private aircraft with filed plans usually tried to smuggle in drugs or deviate from their route to drop off drug shipments.<sup>148</sup> The inability of

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<sup>145</sup> Joseph Jockel, *Canada in NORAD, 1957-2007: A History* (Kingston, Ont.: Queen’s Centre for International Relations & Defence Management Studies, 2007), 145-146.

<sup>146</sup> North American Aerospace Defense Command. Office of History. *A Brief History of NORAD: As of 31 December 2013*.

[https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20\(current%20as%20of%20March%202014\).pdf](https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20(current%20as%20of%20March%202014).pdf)

<sup>147</sup> The drug interdiction mission was initiated by NORAD through commander of US Element NORAD (USELEMNORAD), General John L. Piotrowski who pressured US State Department to obtain Canadian participation through NORAD. The functional value of the drug interdiction mission is often discounted on the ground that it was thumped up by NORAD to justify its survival with the demise of the Soviet threat.

<sup>148</sup> North American Aerospace Defense Command. Office of History. *A Brief History of NORAD: As of 31 December 2013*.

[https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20\(current%20as%20of%20March%202014\).pdf](https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20(current%20as%20of%20March%202014).pdf)

CINCNORAD to effectively carry out the mission without Canadian participation (due to geographical proximity) also presented a functional problem. The Canadian military personnel in NORAD, on the other hand, did not want to contribute to further marginalizing NORAD,<sup>149</sup> thus advancing US demands for Canada to be a “good neighbour” and contribute via the drug interdiction mission.

NORAD’s drug interdiction mission meant that the command was responsible for identifying 300-600 aircraft daily which was in line with its air defence mandate.<sup>150</sup> The adoption of the counter-narcotic mission was so successful that the Canadian NORAD Region (CANR), in collaboration with its American counterparts successfully monitored an aircraft on a non-stop flight from Colombia to eastern Canada. Canadian CF-18 fighter aircraft were involved in the operation that led to tracking the suspect aircraft to a remote airfield in northern Quebec.<sup>151</sup> As the aircraft was intercepted on Canadian soil, the Royal Canadian Mounted Police (RCMP) seized several tons of cocaine estimated at a street price of \$3 billion US dollars.<sup>152</sup>

The next major test of NORAD was that fateful day on 11 September 2001 which would launch a war in Afghanistan but would also provoke a fundamental rethink of NORAD and its mission suites.

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<sup>149</sup> Marci McDonald, “Fourth of Seven Parts Turning NORAD into Drug-Buster: AM Edition,” *Toronto Star* (Toronto, Ont: Torstar Syndication Services, 1993).

<sup>150</sup> Nicolas Allarie, “Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command” (master's thesis, University of Manitoba, 2016).

<sup>151</sup> Paul Keddy, “Canada and NORAD: The Way Ahead.” (Canadian Forces College, 2001), [https://www.cfc.forces.gc.ca/259/181/63\\_keddy.pdf?q=norad](https://www.cfc.forces.gc.ca/259/181/63_keddy.pdf?q=norad).

<sup>152</sup> David Hughes, “CF-18s, NORAD shift to drug interdiction,” *Aviation Week & Space Technology*, August 2, 1993, 48.

## Conclusion

NORAD's continental air defence missions were so successful it could take on other missions like drug interdiction in the same domain. Of course, the fall of the Soviet Union facilitated this addition. The absence of substantial threats from other domains (for example, from the land or maritime domains) effectively confined NORAD to the air and aerospace domain. By the end of the Cold War, there was another decline in political interest in NORAD's activities. Even the NORAD-led 1992 study called the "NORAD Strategy Review",<sup>153</sup> which noted changes in the security environment, was not adequate to stimulate interest in NORAD. Canada and the United States however, recognized that even though the Soviet threat was no more, not all traditional aerospace threats went away as the Soviet Union successor Russia still posed an existential threat to the continental homeland with its possession of air-launched and submarine-launched cruise missiles. Subsequently, the NORAD Agreement was renewed in 1991, 1996 and 2000 indicating confidence in the viability of NORAD.

NORAD as a binational institution plays a functional role that is crucial to the defence and security of the United States and Canada. Historically, an air centric institution, the command evolved in response to threats and the need for the technological advancements to deal with those threats. In particular, the 1996 renewal was significant because it redefined the command's mission as aerospace warning and aerospace control for North America.<sup>154</sup> Canada's approach to continental defence has been remarkably consistent since 1938. Beginning with the

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<sup>153</sup> North American Aerospace Defense Command, Office of History, *A Brief History of NORAD: As of 31 December 2013*,

[https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20\(current%20as%20of%20March%202014\).pdf](https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20(current%20as%20of%20March%202014).pdf)

<sup>154</sup> North American Aerospace Defense Command. Office of History. *A Brief History of NORAD: As of 31 December 2013*,

[https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20\(current%20as%20of%20March%202014\).pdf](https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20(current%20as%20of%20March%202014).pdf)

Kingston Dispensation, both Canada and the United States recognized that their security was inescapably intertwined. This reality first manifested with the creation of the PJBD and addition of the MCC to the PJBD structure. The threat of a nuclear-capable Soviet Union drove both Canada and the United States to create an air defence system which executed joint operational control of binational forces. Though the military on both sides collaborated extensively, when radar sites were built in northern Canada, guarantees were obtained such that a broad conception of Canadian sovereignty was respected and when the Agreement that established NORAD was signed, both Canada and the United States retained their national command authority.

With the loss of its main adversary the Soviet Union, NORAD was in search of a mission and agreed to assist with drug interdiction. The governments on both sides of the border turned their attention to overseas “humanitarian” and civil war missions for much of the 1990s and NORAD was all but forgotten. The 1991, 1996 and 2000 renewals were barely mentioned in the media. Badly needed upgrades to radar systems, buildings and personnel training were cut in favour of considerable cost savings during the “peace dividend” that marked the end of the Cold War. This attention overseas and away from North America would haunt both governments and NORAD on a fateful day in September 2001.

### CHAPTER 3- September 11, 2001 and Maritime Warning

The effect of the September 11, 2001 (9/11) attacks on North American continental defence and security was unprecedented. The United States and Canada had to think of ways to defend from threats from within. Large coordinated attacks on continental North America by either state or non-state actors were considered highly unlikely in the 2000s.<sup>155</sup> 9/11 occurred on American soil but it caused Canada to also rethink its defence and security priorities given that it is the closest neighbour and initially, there were rumours that the terrorists originated from Canada.<sup>156</sup> If the Kingston Dispensation (the promise of US support to Canada) and Canadian corollary (the promise of Canada not to require US assistance) was to be upheld, both the United States and Canada needed to ensure the other was protected prompting a rethink of the status quo.

9/11, however, mostly revealed the vulnerabilities of the United States especially, with regards to the economy and its infrastructure and the fact that, despite the most sophisticated security organizations in the world, they were not talking to each other.<sup>157</sup> The events of 11 September 2001 brought about notable changes to the federal structure to address the heightened security threat. In some cases, entirely new departments were established, or morphed from one or two former organs of government.<sup>158</sup> These changes in the United States had implications for Canada due to its proximity, economic and political ties with the United States and the hundreds of bilateral arrangements that saw many US and Canadian organizations working quite closely

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<sup>155</sup> Laurence Hickey, "Canadian Navy and Domestic Maritime Enforcement" (PhD diss., Cardiff University, 2008), <https://uml.idm.oclc.org/login?url=https://www-proquest-com.uml.idm.oclc.org/dissertations-theses/canadian-navy-domestic-maritime-enforcement/docview/1371823026/se-2?accountid=14569>.

<sup>156</sup> Paul Wells, "Thousands Die. Blame Canada: National Edition," *National Post*, 2001.

<sup>157</sup> Dwight Mason, "The Canadian-American North American Defence Alliance in 2005," *International Journal* 60, no. 2 (2005): 385-96.

<sup>158</sup> Laurence Hickey, "Canadian Navy and Domestic Maritime Enforcement" (PhD diss., Cardiff University, 2008), <https://uml.idm.oclc.org/login?url=https://www-proquest-com.uml.idm.oclc.org/dissertations-theses/canadian-navy-domestic-maritime-enforcement/docview/1371823026/se-2?accountid=14569>.

together.<sup>159</sup> Canada's role in continental security and defence became even more important in the aftermath of the attacks.

Attention was also drawn to coastal, lake, ocean and waterway surveillance and control post 9/11 in a way that never existed beyond safety and security concerns – such as a conduit for cigarette or drug smuggling and response to a major oil or chemical spill or search and rescue scenario. The maritime domain became an area of concern as a pathway for potential terrorist attacks, and continues to be exploited by illegal smugglers, drug traffickers and other criminals.<sup>160</sup> Prior to the 9/11 attacks, maritime defence was taken for granted by most Canadians, particularly those employed within government circles responsible for monitoring and enforcing Canada's sovereignty.<sup>161</sup> Mason argues that ocean governance in Canada had evolved in a relatively benign threat environment since World War II with mostly lesser crimes from over-fishing and water pollution to smuggling of contraband and trafficking in persons which, though considered more grievous, were largely nonviolent threats.<sup>162</sup>

Since the end of the Cold War, attention was fixated on intrastate and ethnic conflicts raging in other parts of the world. NORAD's attention was focused on threats approaching North America, not within North America. 9/11 forced NORAD, a binational, air defence centric institution, had to turn its attention to threats emanating internally. Consequently, it became evident that a concerted effort was required to ensure the defence and security of North America

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<sup>159</sup> Jean Charest, "Canada and the US - Change and Continuity," *International Journal* 60, no. 2 (Spring 2005): 321-330. The US remains Canada's largest trading partner, with two-way trade in goods and services in the range of \$1.2 billion per day, up over 150 percent since 1988.

<sup>160</sup> Zachary Peterson, "Cultural Barriers' Remain a Challenge: REPORT: US, Canada Must Work To Improve Maritime Domain Awareness," *Inside the Navy* 19, no. 18 (2006): 13, <http://www.jstor.org.uml.idm.oclc.org/stable/24840066>.

<sup>161</sup> Peterson, *Cultural Barriers' Remain a Challenge*.

<sup>162</sup> *Ibid.*

as a single military and economic space protected cooperatively by employing new military measures as well as new civilian arrangements.<sup>163</sup>

In response to the 9/11 attack, NORAD launched Operation Noble Eagle (ONE) - a combination of air surveillance and the enforcement of no-fly zones.<sup>164</sup> The original purpose was to defend US cities, critical infrastructure and the President against future terrorist attacks. This still-ongoing air control mission ensures that aircrafts within and those approaching the US homeland are monitored against any potential terrorist attacks. ONE missions were performed largely by the USAF First Air Force, a unit dedicated to NORAD missions under the command of the Continental NORAD Region (CONR), located at Tyndall Air Force Base, in Florida.<sup>165</sup> NORAD, being the key participant, responded to over 2100 potential airborne threats in the continental United States, Canada, and Alaska between September 2001 and June 2006.<sup>166</sup> ONE became an enduring part of NORAD duties with USAF units assigned to NORAD assuming responsibility for the air defence of the National Capital Region, providing ongoing protection for Washington, D.C.<sup>167</sup> As part of ONE, NORAD played a crucial role in air defence supports for major events such as air protection for the NASA shuttle launches, G8 summit meetings, Olympics and Superbowl football events.<sup>168</sup> ONE, therefore, represented a new operation for NORAD, broadening its focus for the first time to address both internal and external threats

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<sup>163</sup> Ibid.

<sup>164</sup> Operation Noble Eagle was temporary response to 9/11 that metamorphosed into a permanent defense requirement. See Priscilla Jones, "2001- Operation Noble Eagle," (United States Airforce Historical Studies Office, September 6, 2012), <https://www.afhistory.af.mil/FAQs/Fact-Sheets/Article/458956/2001-operation-noble-eagle/>

<sup>165</sup> Ibid.

<sup>166</sup> North American Aerospace Defense Command. Office of History. *A Brief History of NORAD: As of 31 December 2013*, 8.

[https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20\(current%20as%20of%20March%202014\).pdf](https://www.norad.mil/Portals/29/Documents/A%20Brief%20History%20of%20NORAD%20(current%20as%20of%20March%202014).pdf)

<sup>167</sup> Priscilla Jones, "2001- Operation Noble Eagle," (United States Airforce Historical Studies Office, September 6, 2012), <https://www.afhistory.af.mil/FAQs/Fact-Sheets/Article/458956/2001-operation-noble-eagle/>

<sup>168</sup> Ibid; Andrea Charron, "Canada, the Arctic, and NORAD: Status quo or new ball game?" *International Journal* 70, no. 2 (2015): 215-31, <http://www.jstor.org.uml.idm.oclc.org/stable/24709458>.

against North America.<sup>169</sup> The next change was for the Federal Aviation Administration (FAA) to send feeds directly to the NORAD headquarters and to have representatives on the watch floor. Part of the confusion in responding on 9/11 was because the FAA had the information and was playing a game of “telephone tag” (quite literally) with NORAD.

In 2001, then US secretary of defense Donald Rumsfeld called for a more integrated and multi-environment North America Defense Command (NORAD) in addition to a rethink of the Unified Command Plan to consider some form of a North American command.<sup>170</sup> Threats approaching from all domains including the air, land, and sea were to be considered as was the role of NORAD should another US combatant command be created.<sup>171</sup>

In response to the changing threat environment arising from the 9/11 attacks, the United States Department of Defense (USDoD) created US Northern Command (USNORTHCOM) in October 2002, as a joint service command involving all domains to ensure homeland defense.<sup>172</sup> With NORAD already executing the defense mission in the air domain of North America, it was a logical step to co-locate the headquarters of NORAD and USNORTHCOM in Colorado Springs, Colorado, and to retain a dual-hatted commander relationship between NORAD and the new US joint command.<sup>173</sup> Soon after the creation of USNORTHCOM, Canada and the United States, created a Bi-National Planning Cell (later called Binational Planning Group), tied closely to the new NORAD-USNORTHCOM relationship.<sup>174</sup> The two commands provided personnel

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<sup>169</sup> Ibid.

<sup>170</sup> Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *‘LEFT of BANG’: NORAD’s Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015). [https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

<sup>171</sup> Philippe Lagassé, “Northern Command and the Evolution of Canada-US Defence Relations,” *Canadian Military Journal* 4, no. 1 (2003): 15.

<sup>172</sup> Priscilla Jones, “2001- Operation Noble Eagle,” (United States Airforce Historical Studies Office, September 6, 2012), <https://www.afhistory.af.mil/FAQs/Fact-Sheets/Article/458956/2001-operation-noble-eagle/>

<sup>173</sup> Ibid.

<sup>174</sup> Ibid.

and a home for the study group at their headquarters for a four-year period.<sup>175</sup> The Binational Planning Group (BPG) worked on multiple proposals for creating greater coordination of US and Canadian military plans and protocols given the new threat environment post 9/11. Specifically, at the formation stages, the BPG considered eight possible scenarios that would require threat-based planning and a potential combined response to ensure continental defence and security including: 1) a container ship detonates nuclear devices at major ports; 2) biological/chemical attacks from offshore trawlers; 3) terrorism on US and Canadian bridges, locks and tunnels; 4) power grids and pipelines blown-up on CANUS border; 5) terrorists explode a dirty bomb in Windsor/Detroit; 6) direct attacks on US Congress and Canadian Parliament; 7) the homeless, in multiple cities, infected with virulent smallpox; and 8) a major earthquake on US/Canadian west coast.<sup>176</sup>

These threat scenarios informed the BPG's final recommendations on the missions to further strengthen Canada-US security as well as the responses in real time threat situations. Among other things, the BPG called for a joint Canada - US vision statement to provide direction and authority for enhanced coordination and cooperation between organizations with foreign policy, defence and security responsibilities in both countries.<sup>177</sup> The goal of the cooperation, according to the BPG, was to develop a "Comprehensive Defense and Security Agreement," with a continental approach to CANUS defense and security while maintaining an open invitation to participation by other countries.<sup>178</sup> The BPG report called for a

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<sup>175</sup> Ibid.

<sup>176</sup> United States Northern Command, *Bi-National Planning Group: The Final Report on Canada and the United States (CANUS) Enhanced Military Cooperation* (Peterson AFB Colorado: Bi-National Planning Group, March 13, 2006), 74, <https://www.hsdl.org/?view&did=462647>.

<sup>177</sup> Ibid, 5 (i).

<sup>178</sup> Ibid, 74. This agreement according to the BPG should operate in a manner similar to NORAD but include other domains and not just the air while allowing for the entrance of other countries to ensure continental defence and security.

synchronization of all domains – including but not limited to air, maritime and land domains - for the successful execution of all defense and security missions. It also recognised that the existing relationship between both countries characterized by sovereignty concerns and other political issues around intelligence and information sharing, military resources, and the use of missiles would need to be solved.<sup>179</sup> In the end, only one concept, that of developing plans and programs for greater maritime warning, was eventually included in the 2006 renewal of the NORAD Agreement signed in perpetuity.<sup>180</sup> The NORAD maritime warning mission was added to NORAD's existing mandate.<sup>181</sup> The literature<sup>182</sup> tends to announce the decision rather than ask why maritime warning? Why not other equally viable options such as maritime defence or combining land forces of both countries?

In the historical overview, the NORAD maritime warning mandate has been ultimately linked to the 9/11 terrorist attacks so much so that many have argued that it was largely a symbolic and political gesture to give NORAD something more in the new threat post 9/11 security and defence environment.<sup>183</sup> Some within the defence and security field have even suggested that, from the onset, the formation of the BPG in 2002 represented an attempt to compensate for the already deteriorating relationship between Canada and the United States owing to the initial Canadian rejection of the offer by the United States to further expand the

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<sup>179</sup> James Fergusson, *Canada and Ballistic Missile Defence 1954-2009: Déjà vu all over again* (Vancouver: UBC Press, 2010), 268. Also see Brad W. Gladman, Strengthening the Relationship: NORAD Expansion and Canada Command.

<sup>180</sup> "Agreement Between the Government of Canada and the Government of the United States of America on the North American Aerospace Defense Command," April 28, 2006, *Treaty E105060*, <https://www.treaty-accord.gc.ca/text-texte.aspx?id=105060>

<sup>181</sup> Priscilla Jones, "2001- Operation Noble Eagle," (United States Airforce Historical Studies Office, September 6, 2012), <https://www.afhistory.af.mil/FAQs/Fact-Sheets/Article/458956/2001-operation-noble-eagle/>

<sup>182</sup> Bernard Brister, *The Same yet Different: Continuity and Change in the Canada-United States Post-9/11 Security Relationship* (Kingston, Ont: Canadian Defence Academy Press, 2012).

<sup>183</sup> Michael Byers, "Canadian Armed Forces Under United States Command," *International Journal* 58, no. 1 (2003): 89–114; Bernard Brister, *The Same yet Different: Continuity and Change in the Canada-United States Post-9/11 Security Relationship* (Kingston, Ont: Canadian Defence Academy Press, 2012).

NORAD agreement.<sup>184</sup> The very name of the group (the “binational” planning group) and the fact that it was led by the Canadian Deputy Commander of NORAD, Lieutenant-General Kenneth Pennie,<sup>185</sup> however, suggests a genuine attempt to re-engage the Americans on continental security but with Canada “at the table” given perennial Canadian sovereignty concerns.<sup>186</sup> This thesis returns to the origins of NORAD’s maritime warning mission informed by Charron and Fergusson’s “Left of Bang” report to untangle the competing conclusions regarding why NORAD adopted maritime warning.<sup>187</sup>

### **The Origins of NORAD’s Maritime Warning Mission**

Maritime warning, as a component of maritime domain awareness (MDA), falls within the purview of maritime security and defence of North America and the entire architecture that supports it. While it is impractical and beyond the scope of this thesis to provide an extensive historical development of maritime security in Canada and the United States, a brief overview of key US and Canadian defence and security statements post 9/11 and the agencies and institutions that sprang up after 9/11 are useful to understand the decision by Canada and the United States to add maritime warning over other, equally viable options as a part of NORAD’s continental security and defence mandate.

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<sup>184</sup> Bernard Brister, *The Same yet Different: Continuity and Change in the Canada-United States Post-9/11 Security Relationship* (Kingston, Ont: Canadian Defence Academy Press, 2012), 147.

<sup>185</sup> Philippe Lagassé, “Northern Command and the Evolution of Canada-US Defence Relations,” *Canadian Military Journal* 4, no. 1 (2003): 20.

<sup>186</sup> Ibid.

<sup>187</sup> Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *‘LEFT of BANG’: NORAD’s Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015).  
[https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

While at a first glance, the contribution of Canada to continental defence through NORAD appears substantial with the inclusion of Canadian military officials in various forums for air/aerospace defence and now maritime warning, the lack of interest shown by successive Canadian governments except when the NORAD agreement is up for renewal, suggests Canada's contribution is military driven. As Delholm notes, "in participating in setting the agenda for the Canadian political decision-makers, the Canadian military is also participating in a process which rules out of consideration alternatives which are entertained by Canadian political decision-makers based on distinctly Canadian assessments of the international environment and Canada's place in it."<sup>188</sup> The Canadian military, through NORAD, aware of US government needs, can control and manipulate the flow of information to the Canadian political decision-makers to ensure US preferences are presented.<sup>189</sup> The result is that the Canadian military provides the substance and the Canadian politicians, the symbolism.

When USNORTHCOM was stood up in October 2002, it was tasked with deterring, and defeating any threats aimed at the United States, its territories, and interests.<sup>190</sup> USNORTHCOM mandate comprised "all air, land and sea approaches to North America, encompassing the continental US, Alaska, Canada, Mexico and the surrounding water areas out to approximately 500 nautical miles."<sup>191</sup> This reflected US defence priorities in a post 9/11 era with defence and security within the US homeland and, by extension, continental defence, taking a centre stage in defence policy calculations. The composition of USNORTHCOM involves different units in all domains of the air, land, cyber and maritime that make up the defence architecture which is a

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<sup>188</sup> Ann Crosby, "A Middle – Power Military in Alliance: Canada and NORAD," *Journal of Peace Research* 34 no. 1, 49.

<sup>189</sup> Ibid.

<sup>190</sup> United States Northern Command, Office of History, *A Short History of United States Northern Command*, 4, [http://www.northcom.mil/Portals/28/Documents/A%20Short%20History%20of%20USNORTHCOM%20\(current%20as%20of%20March%202014\).pdf](http://www.northcom.mil/Portals/28/Documents/A%20Short%20History%20of%20USNORTHCOM%20(current%20as%20of%20March%202014).pdf)

<sup>191</sup> Ibid.

clear reflection of US defence priorities. The nine different units placed under the command of USNORTHCOM include: 1) US Special Operations Command, North (SOCNORTH); 2) US Marine Forces Northern Command (MARFORNORTH); 3) US Fleet Forces Command/US Navy North (USFF); 4) Air Forces Northern; 5) US Army North (Fifth Army); 6) Joint Task Force North (JTF North); 7) Joint Task Force Civil Support (JTF-CS); 8) Joint Task Force Alaska (JTF-AK); and 9) Joint Force Headquarters National Capital Region (JFHQ-NCR).<sup>192</sup>

USNORTHCOM became co-located with NORAD and the commander of NORAD became dual hatted as commander of USNORTHCOM. This close tie was logical and functional “especially in a period of constrained resources”<sup>193</sup> and the non-enthusiastic response by Canada and the United States to expand the NORAD mandate to other domains – neither military was keen for more. Sokolsky suggests that Canada had to recognize that it was directly involved in the defence of the American homeland<sup>194</sup> but that it was not prepared to do more than was “just enough”. US and Canadian national security objectives post 9/11 focused mostly on homeland security defined as “a concerted national effort to prevent terrorist attacks within the United States [and Canada], reduce America’s vulnerability to terrorism, and minimize the damage and recover from attacks that do occur”.<sup>195</sup> In meeting its objectives, the report indicated that US strategy would be sensitive to treaty and other international obligations, but would fashion other

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<sup>192</sup> United States Northern Command, “About US NORTHCOM,” <http://www.northcom.mil/AboutUSNORTHCOM.aspx>

<sup>193</sup> Andrea Charron, James Fergusson, Rob Huebert, Joseph Jockel, Ellie Malone, Sara McGuire, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen. *NORAD in Perpetuity? Challenges and Opportunities for Canada*. (Centre for Defence and Security Studies, March 31, 2014).

<sup>194</sup> Joel Sokolsky, “Sailing in Concert: The Politics and Strategy of Canada-US Naval Interoperability,” *Choices, Institute for Research on Public Policy*, April 2002. <https://irpp.org/research-studies/choices-vol8-no2/>

<sup>195</sup> United States, The White House, *Office of Homeland Security: National Strategy for Homeland Security*, 2.

means to achieve US homeland security where international arrangements were inadequate or counterproductive to US homeland security priorities.<sup>196</sup>

Canadian defence priorities in the same period have been defined as being heavily influenced by the United States in the post 9/11 era.<sup>197</sup> According to Brister, the first indication is the manner in which all major Canadian policy statements and/or security measures taken by Canada after 9/11 have been in “trailing lockstep” with American statements.<sup>198</sup> From the reorganisation of the Canada’s domestic infrastructure in 2003 like the US to the release of the Canadian International Policy Statement (IPS) – A Role of Pride and Influence in the World Defence- as well as the initiation of the Canadian Forces transformation in 2006, Canada modelled its statements only after the US had taken similar steps.<sup>199</sup> In addition, to the similarity between the US National Security Policy (NSP) and the IPS, the structural changes in the Canadian security infrastructure, Brister points to the formation of Public Safety Canada and Canada Command (CANCOM) , as evidence that Canada followed the United States after its formation of the Department of Homeland Security and NORTHCOM in the United States.<sup>200</sup> Brister, however, is not correct; Public Safety Canada was in the works long before 9/11. It was a variation on Emergency Preparedness Canada and planning for the new department was prompted by Y2K – the world-wide response to computer algorithms potentially failing when the calendar changed from 1999 to 2000. Regardless of the exact impetus for Public Safety Canada,

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<sup>196</sup> Ibid

<sup>197</sup> Bernard Brister, *The Same yet Different: Continuity and Change in the Canada-United States Post-9/11 Security Relationship* (Kingston, Ont: Canadian Defence Academy Press, 2012), 148.

<sup>198</sup> Brister, *The Same yet Different*

<sup>199</sup> Ibid

<sup>200</sup> Ibid

the war on terror necessarily forced not only America to rethink its structures but also Canada, in pace unseen since the Cold war.<sup>201</sup>

With the twinning of USNORTHCOM and NORAD via the NORAD Commander, Canada benefitted from increased cooperation with the US due to increased access to information, training and confidential US defence plans from USNORTHCOM that benefits from representation by 60+ civilian organizations with all domains represented. Access to these plans and methods are however, controlled by the Canadian military whose prior knowledge to US defence priorities allows Canadian military officials attached to NORAD and by extension USNORTHCOM to control information flow to the Canadian political environment. Notwithstanding, the presence of a Canadian political advisor (POLAD) provided by Global Affairs Canada to NORAD to senior commanders to ensure that national interests are taken into consideration and protected, it is still insufficient to leave the defence of Canadian priorities within NORAD to only two individuals- the POLAD and the NORAD Deputy-Commander.<sup>202</sup> This military dominance in the flow of information in defence and security forums is reminiscent of and underscores the very foundation and historical establishment of NORAD as a binational organisation rather than a “command” in its original form only to be termed a command when the notes were eventually exchanged formally between Canada and the US in 1958.

When CANCOM was stood up on February 2006 by Canada, it was similar to USNORTHCOM except that CANCOM had no civilian agencies embedded in it as did USNORTHCOM. In 2012, CANCOM was merged with two other commands, the Canadian

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<sup>201</sup> Joel Sokolsky, and Philippe Lagassé, “Suspenders and a Belt: Perimeter and Border Security in Canada-US Relations,” *Canadian Foreign Policy Journal* 12, no. 3 (2006): 15–29.

<sup>202</sup> Andrea Charron, James Fergusson, Joseph Jockel, Chris Sands and Joel Sokolsky. *NORAD: Beyond Modernization*. (University of Manitoba: Centre for Defence and Security Studies, 2019), 59. [https://umanitoba.ca/centres/cdss/media/NORAD\\_beyond\\_modernization\\_2019.pdf](https://umanitoba.ca/centres/cdss/media/NORAD_beyond_modernization_2019.pdf)

Expeditionary Force Command (CEFCOM) and the Canadian Operational Support Command (CANOSCOM) to form the Canadian Joint Operations Command (CJOC). CJOC and USNORTHCOM work closely together sharing situational awareness on threats. NORAD is therefore an independent command within this tri-command structure in relation to its three agreed missions of aerospace warning, aerospace control and maritime warning. NORAD is also uniquely positioned in that it has a global area of responsibility AOR stemming from its original aerospace warning and control missions, however, its domain is North American in relation to its maritime warning mission.<sup>203</sup> A global outlook with a continental domain focus therefore places NORAD in a vantage point to alert CJOC and USNORTHCOM about potential maritime threats wherever they may stem from- close to home or abroad.

The benefits of security cooperation with the United States should not be discounted. CJOC is a sort of Canadian version of USNORTHCOM (although CJOC has a global area of responsibility that includes overseas operations whereas USNORTHCOM is restricted to North America), and its formation had as one of its key objectives, the need to ensure an ongoing bilateral relationship with the USNORTHCOM. Both CJOC and USNORTHCOM have operational command (surveillance and defence) over all Canadian and US land and maritime assets within North America.<sup>204</sup> NORAD, therefore enjoys a unique position as it is supported by CJOC<sup>205</sup> and USNORTHCOM. NORAD's co-location and co-command with USNORTHCOM

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<sup>203</sup> Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *'LEFT of BANG': NORAD's Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015). [https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

<sup>204</sup> On the Canadian side the assets fall under commander of 1 Canadian Air Division/CANR in Winnipeg, and to the commander of Alaska Region (ANR) and Continental Region (CONR) on the US side.

<sup>205</sup> In Canada, support is facilitated by the triple-hatted CANR Commander who is also the Commander of 1CAD and CJFAC. See detailed diagrams in Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *'LEFT of BANG': NORAD's Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence

is therefore a plus for Canada considering the access to the over sixty other government departments (OGDs) located within USNORTHCOM. In the context of NORAD's maritime warning mission, this gives NORAD and by extension, Canada (through CJOC), the ability to access information and intelligence from the OGDs. The crucial point is that without that link, Canada, might have been excluded from vital US intelligence and information necessary for its own national and continental security efforts.

A case can be made that Canada needed to make its own contributions to continental defence by transforming the Canadian forces in such a way that it sends a message to the Americans that it takes the security concerns of the Americans, abroad, seriously and is prepared to take steps to support them significantly.<sup>206</sup> However, the extent to which the Canadian military is being influenced by US defence priorities and how those influences are transferred to political decision makers, who are often working off of the information of the military "professionals",<sup>207</sup> is rarely studied.

### **Why NORAD?**

Canada and the United States agreed to add maritime warning to NORAD's mission set. Both states rejected maritime control and a land mission as bridges too far for both countries. Under the NORAD agreement, command arrangements were in place such that US fighters may respond to an air threat in Canadian airspace and vice versa.<sup>208</sup> NORAD's maritime warning is

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and Security Studies, 2015).

[https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

<sup>206</sup> Bernard Brister, *The Same yet Different: Continuity and Change in the Canada-United States Post-9/11 Security Relationship* (Kingston, Ont: Canadian Defence Academy Press, 2012), 48.

<sup>207</sup> Ibid. Brister notes that the CDS at the time, General Walter Natynczyk, had a similar profile and understanding of American strategic thinking and processes, hence it is significant how these individual personalities can play out in terms of advising Canadian decision makers with regards to security cooperation with the Americans in NORAD.

<sup>208</sup> Elinor Sloan, *Security and Defence in the Terrorist Era: Canada and the United States Homeland* (Montréal: McGill-Queen's University Press, 2010), 119.

qualitatively different in sovereignty terms because only American or Canadian vessels could respond to threats in US or Canadian waters respectively unless otherwise agreed.<sup>209</sup>

Maritime warning was a functionally useful and necessary compromise for both states. On the one hand, maritime warning was very much in line with US defence policy as outlined in the National Strategy for Homeland Security following the September 11 terrorist attacks. On the other hand, the adoption of similar policies and structures by Canada addressed shared issues and concerns and sent a strong message to the Americans that Canadians recognized and prioritized American security concerns. Lieutenant General George Macdonald, Vice-Chief of the Defence Staff at the time<sup>210</sup>, asserted that Canadian interests were intertwined with that of the Americans and the case of NORAD presented an effective example of how that relationship should be enhanced.<sup>211</sup> Sovereignty concerns, in Macdonald's assessment, did not arise as the Canadian Armed Forces were committed to protecting Canada's sovereignty and the policy independence of the Canadian government.<sup>212</sup>

The proceedings of the Standing Senate Committee on National Security and Defence in 2002 indicated that Vice Admiral Greg Maddison, then Deputy Chief of the Defence Staff, who served formerly as Commander of Maritime Forces Atlantic and Chief of the Maritime Staff, highlighted the problem and existing legal constraints around the use of Armed Forces within the Canadian homeland. Canadian Forces are not the first responders when crises and natural disasters arise domestically and the responsibilities may fall within the provincial and territorial jurisdictions.<sup>213</sup> Though sovereignty concerns arise with the inclusion of external help from

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<sup>209</sup> Ibid.

<sup>210</sup> Proceedings of the Standing Senate Committee on National Security and Defence 2002.

<sup>211</sup> Ibid, 20.

<sup>212</sup> Ibid.

<sup>213</sup> Ibid, 3.

institutions like NORAD, Vice Admiral Maddison still expressed the need to accept such help given the limited resources available to the Canadian Forces. The dynamics created by the interaction of Canada's limited military capability and budget in relation to their US counterparts created the need to depend on external support from the Americans which in turn influenced the need to assuage US security demands for which Canadian military professionals often champion with their prior knowledge about those American concerns given their active participation in various forums of mutual cooperation such as NORAD.<sup>214</sup>

In the build up to the 2006 renewal of the NORAD mandate, Canada's elected officials relied on the testimonies of various Canadian military and civilian officials,<sup>215</sup> and elected to expand the mandate to include the coastal waters surrounding North America.<sup>216</sup> Though the decision was by an order in council, the new agreement received concurrence from the opposition Liberal Party and the governing Conservative Party.<sup>217</sup> The original aerospace warning and control missions for North America were retained and NORAD was tasked with a new maritime warning mission.<sup>218</sup> In the agreement:

“Maritime warning” consists of processing, assessing, and disseminating intelligence and information related to the respective maritime areas and internal waterways of, and the

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<sup>214</sup> In the Proceedings of the Standing Senate Committee on National Security and Defence 2002, Vice Admiral Greg Maddison explained the limited capacity of the Canadian Forces at the time with close to 5,000 deployed abroad leaving 60,000 regulars and 30,000 reservists back in Canada of which many were support staff. The limited number of aircraft required to move people and equipment across the country, for example in the event of a natural disaster requires an assessment of the risks and the development of capabilities to respond to high risk priorities which often falls to the military to make that assessment but the decision around which municipal, provincial or federal authorities should be the first responders lies with the Canadian government, which more often than not, takes the advice of Canadian military officials about where the priorities lie.

<sup>215</sup> Canada. Parliament. Senate. Standing Senate Committee on National Security and Defence. Proceedings, Issue No. 14, 6 May 2002, 1st sess., 37th Parliament, 2002; Canada, The Standing Senate Committee on National Security and Defence. Ottawa: Monday, April 7, 2003.

<sup>216</sup> Ernie Regehr, “NORAD Renewal: Further down the Slippery slope?” *Ploughshares Monitor* (2001) 27, no. 3 (2006): 7-10.

[https://ploughshares.ca/pl\\_publications/norad-renewal-further-down-the-slippery-slope/](https://ploughshares.ca/pl_publications/norad-renewal-further-down-the-slippery-slope/)

<sup>217</sup> Brian Nicholson, “Mending Fences: Assessing the Canadian Decision to Expand NORAD,” *Canadian Naval Review* 2, no. 4 (2007): 9-13.

<sup>218</sup> “Agreement Between the Government of Canada and the Government of the United States of America on the North American Aerospace Defense Command,” April 28, 2006, *Treaty E105060*, <https://www.treaty-accord.gc.ca/text-texte.aspx?id=105060>

maritime approaches to, Canada and the United States, and warning of maritime threats to, or attacks against North America utilizing mutual support arrangements with other commands and agencies, to enable identification, validation, and response by national commands and agencies responsible for maritime defense and security. Through these tasks NORAD shall develop a comprehensive shared understanding of maritime activities to better identify potential maritime threats to North American security.<sup>219</sup>

In other words, the new mission tasked NORAD with the responsibility of receiving intelligence and information from national, interagency surveillance efforts of Canada and the United States about potential threats from the continental maritime approaches. Upon receiving such intelligence, NORAD is tasked with processing and assessing the information and then alerting the relevant and appropriate maritime control authorities in both states given the multiplicity of actors that make up maritime domain in both states. The agreement explicitly vests maritime surveillance and control (defence operations) in the hands of the respective national commands but concurs that both states will cooperate bilaterally as needed in that regard.<sup>220</sup>

NORAD's warning role extends beyond North America as the goal is to identify threats to the continent through the maritime approaches, wherever they may emerge from and facilitate a unilateral, bilateral or binational response.<sup>221</sup> However, NORAD's maritime warning mission is restrictive in that it limits NORAD to a warning and assessment role. Should a threat emanating from the maritime approaches require a defence response, NORAD does not have operational control; rather the response would come from the national commands of Canada and the United

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<sup>219</sup> Ibid.

<sup>220</sup> "Agreement Between the Government of Canada and the Government of the United States of America on the North American Aerospace Defense Command," April 28, 2006, *Treaty E105060*, <https://www.treaty-accord.gc.ca/text-texte.aspx?id=105060>

<sup>221</sup> Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *'LEFT of BANG': NORAD's Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015), 18, [https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

States.<sup>222</sup> Only when that threat spirals into an air threat does NORAD aerospace control role allow NORAD to step in.<sup>223</sup> Functionalism explains that this restriction to a maritime warning role is critical for supranational institutions like NORAD to focus on a specific, limited activity that requires a technical solution and mutual cooperation. Compared to maritime surveillance and maritime control, maritime warning was considered more contained scope-wise and less contentious by decision makers on both sides, thus making it easier for the binational command to see maritime warning being added to its mission suite.<sup>224</sup>

Further, the numerous military and civilian institutions in the maritime domain environment,<sup>225</sup> with varying roles in relation to the maritime domain, made it logical to select warning mission for NORAD and have a single command to coordinate and facilitate information and intelligence sharing between the many players. Including maritime control would have further complicated the already ambiguous relationship existing both within and between the various institutions that play a role in maritime security environment of Canada and the United States. Functionalism suggests that political conflict arising from differing positions on contentious issues deviates attention from the technical solutions that technocrats ought to be concerned with. With maritime warning, NORAD could focus on assessing and identifying potential risks while leaving the threat response to the national authorities.

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<sup>222</sup> Ibid, 18.

<sup>223</sup> Ibid.

<sup>224</sup> Ernie Regehr notes that there are still calls to reverse the aerospace control mission assigned to NORAD by integrationists. For the full details see, Ernie Regehr, "NORAD Renewal: Further down the Slippery slope?" *Ploughshares Monitor* (2001) 27, no. 3 (2006): 7.

[https://ploughshares.ca/pl\\_publications/norad-renewal-further-down-the-slippery-slope/](https://ploughshares.ca/pl_publications/norad-renewal-further-down-the-slippery-slope/)

<sup>225</sup> For a detailed list of civilian and military establishments involved in the "left of bang" and the "right of bang", see Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *'LEFT of BANG': NORAD's Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015).

[https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

In addition, NORAD's maritime warning mission can be attributed to the binational command's proven, robust ability as a joint institution to adapt to changing continental defence and security conditions. Based on the institutional experience that NORAD had acquired in continental defence operations albeit in the air domain, it was a logical step to house a maritime warning mission with NORAD. The BPG echoed these findings in its report.<sup>226</sup> NORAD's expertise in the aerospace warning and control mission situated it nicely to adapt to novel functional-technical undertakings of mutual concern. NORAD's maritime warning mission is predicated upon threats that can be considered issues of mutual concern that require and deserve cooperative practical and functional solutions and both nations stand to benefit from NORAD's position and experience as a binational institution monitoring, warning, and controlling the airspace of North America. Additionally, compared to NATO, NORAD would be favoured as less prone to political tensions. As the BPG notes:

Expansion to a multi-national command, beyond Canada and the United States would require formal agreements or instruments to implement, since other countries within North and South America are not signatories to the North Atlantic Treaty. Hence, mechanisms such as a non-NATO status of forces agreement would be a political hurdle to overcome.<sup>227</sup>

In other words, any military integration that extended beyond Canada and the United States was likely to be met with opposition from the political decision makers on both sides given that a multi-national command would require new agreements to formalize security and defence relationships with new entrants or even a whole reorganization of the NATO agreement itself. Efforts were made to eliminate the reference but, in the end, the final agreement signed by

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<sup>226</sup> Canada and the United States, *Bi-National Planning Group: Interim Report on Canada and the United States (CANUS) Enhanced Military Cooperation* (Peterson AFB Colorado: Bi-National Planning Group, October 13, 2004), <https://www.hsdl.org/?view&did=461253>.

<sup>227</sup> *Ibid*, 65.

both nations indicated that the cooperation followed the framework of the NATO Treaty and NATO “shall continue to be kept informed through national NATO policy staffs, or other designated representatives, of arrangements for NORAD’s role in the defense of North America.”<sup>228</sup> This spill over effect of the NORAD maritime warning mission highlights the functional role that might not have existed allowing other NATO allies access to intelligence and information from NORAD and USNORTHCOM.

Prior to 9/11, there already existed an extremely high degree of communication and cooperation between the Royal Canadian Navy (RCN) and the United States Navy (USN)<sup>229</sup> and various agencies in the maritime environment that dates to World War II.<sup>230</sup> The Cold War brought about a situation where the strategic air defence was an imperative and, therefore, cooperation between the RCAF and USAF became the most important defence relationship between Canada and the United States<sup>231</sup> leading to the creation of NORAD. However, the threat environment quickly changed to include land-based ICBMs in addition to submarine-launched ballistic missiles (SLBMs) launched from nuclear-powered ballistic missile submarines (SSBNs) in the early 60s.<sup>232</sup> The decision by the United States to pursue Ballistic Missile Defence in the

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<sup>228</sup> “Agreement Between the Government of Canada and the Government of the United States of America on the North American Aerospace Defense Command.” April 28, 2006, *Treaty E105060*  
<https://www.treaty-accord.gc.ca/text-texte.aspx?id=105060>

<sup>229</sup> Brian Nicholson, “Mending Fences: Assessing the Canadian Decision to Expand NORAD,” *Canadian Naval Review* 2, no. 4 (2007): 10.

<sup>230</sup> Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *‘LEFT of BANG’: NORAD’s Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015), 11,  
[https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

<sup>231</sup> Joel Sokolsky, “Sailing in Concert: The Politics and Strategy of Canada-US Naval Interoperability,” *Choices, Institute for Research on Public Policy*, April 2002, 16.  
<https://irpp.org/wp-content/uploads/assets/research/national-security-and-interoperability/new-research-article-8/vol8no2.pdf>

<sup>232</sup> *Ibid.* The Soviets led in the development of Sea Launched Cruise Missiles (SCLMs) prompting a need for the US to take threats from the maritime approaches seriously. See Sokolsky, Joel J. “Changing Strategies, Technologies and Organization: The Continuing Debate on NORAD and the Strategic Defense Initiative.” *Canadian journal of political science* 19, no. 4 (1986): 751–774.

late 60s and the subsequent 1972 US-Soviet Anti Ballistic Missile Defense (ABM) Treaty again shifted NORAD's focus<sup>233</sup> on surveillance, warning and attack as a way of enforcing and assuring American deterrence capabilities.

The United States was concerned with monitoring Soviet submarines including nuclear-powered attack submarines (SSNs) and SSBNs and since there was no formal overall bilateral or binational command for continental defence but only informal linkages, responsibility fell to the RCN and USN to maintain and develop close collaboration in monitoring the maritime approaches to the continent.<sup>234</sup> This collaboration was arguably as robust as that of the aerospace domain<sup>235</sup> with much of the activity occurring in the context of NATO's Supreme Allied Command Atlantic (SACLANT).<sup>236</sup> There is a proven track record of interoperability between the RCN and the USN. RCN is credited as "a member of a select club" to fully integrate into a USN Battle Group and take the place of a USN escort.<sup>237</sup>

On the civilian side, cooperation between Canada and the United States was substantial due to shared interests in the maritime approaches. Cooperation existed between the two Coast Guards and Transportation agencies as a function of common waters, fisheries and somewhat similar mandates.<sup>238</sup> Among other maritime enforcement issues, the national police agencies

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<sup>233</sup> Once fired, there is no protection from a missile reinforcing the need for a concerted effort by both countries to ensure continental security and defence.

<sup>234</sup> Joel Sokolsky, "Sailing in Concert: The Politics and Strategy of Canada-US Naval Interoperability," *Choices, Institute for Research on Public Policy*, April 2002, 17.  
<https://irpp.org/wp-content/uploads/assets/research/national-security-and-interoperability/new-research-article-8/vol8no2.pdf>

<sup>235</sup> Ibid, 17.

<sup>236</sup> In the Cold War era, Canadian Navy was dedicated to NATO anti-submarine warfare (ASW) which seemed more politically tenable given the bent to multilateral arrangements which Ottawa was more at ease with.

<sup>237</sup> Paul Mitchell, "Small Navies and Network-Centric Warfare: Is There a Role?" *Naval War College Review* 56, no. 2 (2003): 92-93.

<sup>238</sup> Through the establishment of Marine Security Operation Centres (MSOCs) on each Coast, the Canadian Navy is in close contact with the US Coast Guard Operation Centres and the US Naval Command. Further communication with US Marine Forces occurs through the Interdepartmental Marine Security Working Group (IMSWG) that comprises of all major players in the Canadian Maritime security. Andrea Charron, James Fergusson,

worked together on cross-border drug interdiction while both nations' customs and immigration agencies faced similar problems in terms of maritime-based illegal smuggling of people and cargo and had a history of working together, especially along the land border.<sup>239</sup>

Despite the many formal and informal bilateral arrangements, the BPG found that each agency had nationally focused, institutional mandates and missions with none having a common operating picture (COP) from which a North American COP could be developed. To ensure greater continental security, the BPG suggested a move from a 'need to know' to a 'need to share' basis where intelligence and information would no longer be 'stoved piped' and shared just between the relevant military and civilian agencies within and across the border.<sup>240</sup> Given this coordination problem in ensuring continental security from the maritime approaches, the functional logic was to locate the maritime warning mandate in an agency that could bring the numerous national departments and agencies with their respective mandates, roles and responsibilities into a more robust and comprehensive North American COP. NORAD was well situated to review a North American COP given its co-location with USNORTHCOM and the track record from providing aerospace warning.

NORAD does not have the responsibility of merging the US and Canadian COPs.

Instead, USNORTHCOM's NAVNORTH gathers and fuses the COP from both nations as well

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Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *'LEFT of BANG': NORAD's Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015), 11, [https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

<sup>239</sup> Ibid, 11.

<sup>240</sup> Like the shortcomings in the air domain pointed out by intelligence experts about the seams and gaps that led to the attack and the subsequent moves to revamp and overhaul the how they approached communicating and sharing information between themselves, the BPG noted that the same seams existed in the maritime domain and required urgent attention. The new emphasis on intelligence sharing was emphasized by the BPG to allay fears echoed by the Canadian Department of National Defence about the secretive posture of US intelligence briefings in the post 9/11 United States which saw being gradually frozen out of intelligence briefings. For details see, Ernie Regehr, "NORAD Renewal: Further down the Slippery slope?" *Ploughshares Monitor* (2001) 27, no. 3 (2006): 8. [https://ploughshares.ca/pl\\_publications/norad-renewal-further-down-the-slippery-slope/](https://ploughshares.ca/pl_publications/norad-renewal-further-down-the-slippery-slope/)

information from allies and partners, into a single North American COP, relative to NORAD's maritime warning mission.<sup>241</sup> All of the information gathered is transferred from USNORTHCOM and made available to NORAD. However, the functional logic that underscores the addition of the maritime warning mission to NORAD means it has the mandate to assess and confirm a potential threat. NORAD can reach out to military and civilian agencies and departments on both sides of the border should it have a question about the COP.<sup>242</sup> The experience of NORAD in aerospace warning, therefore, situates NORAD in a vantage position at the end of the intelligence gathering process.<sup>243</sup>

### **Why Maritime Warning?**

Of the total amount of trade that occurs worldwide, 90% occurs via the sea and 50% of the world's oil is transported by sea.<sup>244</sup> Canada and the United States have a shared stake in the maritime approaches given the enormous amount of trade, cross-border movement of people and infrastructure that goes through sea routes and the geographic necessity demands that places continental security as an issue of mutual concern for both states.<sup>245</sup> As of 2005, the International

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<sup>241</sup> On the Canadian side, the maritime approaches to Canada are tasked under Regional Joint Operations Centres, beneath CJOC. RJOC Atlantic (A) located at Halifax and RJOC Pacific (P) located at Esquimalt. RJOC(A) and RJOC(P) collaborate to create the common operating picture (COP) from the Recognized Maritime Picture (RMP) set by CJOC as well as from information from other sources (including OGD RMPs). On the US side, USPACOM akin to RJOC P, US Fleet Forces (USFF) Command (formerly US Atlantic Fleet) akin to RJOC A, and STRATCOM which provides the global common operating picture. Of these, USFF is tasked with creating the single consolidated North American COP central to NORAD's MW mission and passing along 'filtered' Global Picture provided by STRATCOM relative to USNORTHCOM's AOR. USFF/NAVNORTH shares information relating to maritime security and domain awareness directly with USNORTHCOM, who then sends it to NORAD. Canada's COP, including 'blue forces' tracks as well as some OGD information (permitted by law) is sent to USSF/NAVNORTH and integrated into the single consolidated North American COP.

<sup>242</sup> Nicolas Allarie, "Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command" (master's thesis, University of Manitoba, 2016).

<sup>243</sup> Senator John Wiebe's question on the proposed maritime role for NORAD. See his comments on Proceedings of the Standing Senate Committee on National Security and Defence, May 2002.

<sup>244</sup> Elaine Koren, *Fusion Centres in Selected Countries*, 2013: Discussion Paper and Annotated Bibliography (Ottawa, ON: Public Safety Canada, 2016): 7.

<sup>245</sup> Philippe Lagassé, "Northern Command and the Evolution of Canada-US Defence Relations," *Canadian Military Journal* 4, no. 1 (2003): 15–22.

Policy Statement released by Canada's Minister of Foreign Affairs, Pierre Pettigrew, indicated that Canadian investment in the US totalled \$92 billion while US investment in Canada was at \$152 billion with the US representing 34% of the world's Gross Domestic Product (GDP).<sup>246</sup> Of Canada's total exports, about 87% goes to the United States while 25% of US exports goes to Canada<sup>247</sup> making the US Canada's largest trade partner and therefore imperative that both nations cooperate on continental defence issues. In fact, the numbers are more revealing for Canada<sup>248</sup> as the Canadian economy largely depends on foreign trade with 40% of Canadian GDP being tied to the American economy while only 2.5% of US GDP is tied to Canada.<sup>249</sup>

In the wake of the 9/11 bombings, it became apparent that the security and economic costs arising from cross-border movement disruptions would be enormous particularly in the maritime domain. Canada and the United States conduct about US\$1.3 billion in trade per day with 40,000 commercial shipments and 300,000 people crossing the 4,000-mile-long US-Canada border daily.<sup>250</sup> With over 300 sea and river ports and more than 3700 cargo and passenger terminals with more than 1,000 harbour channels lining the United States coastlines<sup>251</sup>, the US maritime system is arguably the most sophisticated in the world. While approximately 6,000 commercial ships made approximately 60,000 US port calls in 2003,<sup>252</sup> by 2011, 7,836

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<sup>246</sup> Canada's International Policy Statement, *A Role of Pride and Influence in the World – Diplomacy* (Ottawa, Ontario: Foreign Affairs Canada, 2005).

<sup>247</sup> Peter Andreas, *A Tale of Two Borders: the US-Mexico and US-Canada Lines After 9-11* (UC San Diego: Center for US-Mexican Studies, 2003), 9.  
<https://escholarship.org/uc/item/63r8f039>

<sup>248</sup> There were fears that the Canada would be the biggest loser if the United States implemented stricter cross border shutdowns with the automobile industry being a main export commodity from Canada to the United States.

<sup>249</sup> Ibid.

<sup>250</sup> Ibid.

<sup>251</sup> United States, Department of Transportation, *An Assessment of the US Marine Transportation System*, Maritime Administration, Sept. 1999.  
<http://www.marad.dot.gov/>

<sup>252</sup> United States, Department of Transportation, *Vessel Calls at US Ports, 2003*, Maritime Administration, July 2004.

oceangoing vessels made 68,036 port calls.<sup>253</sup> According to the US Department of Transport (USDoT) Statistics, US foreign waterborne container traffic more than doubled between 1990 and 2001 and the trend indicated that similar growth was expected to continue over the next 20 years.<sup>254</sup>

With most ships calling at the port being foreign owned ships<sup>255</sup> the implication not just on trade but also on maritime security in the context of the new asymmetric threat era is therefore telling and presents a functional challenge confronting both the United States and Canada which required innovative solutions to monitor and manage, hence the need for a maritime warning mission. Maritime trade accounted for 53% of total US imports (US\$1,159,096) and 38% of exports in 2011 making it the largest share of the different modes of transporting goods.<sup>256</sup> From about \$1.162 trillion in 2009 to \$1.730 trillion in 2011 and \$1.747 trillion the significance of trade from the United States waters cannot be overlooked. Maritime trade is therefore a cornerstone of the United States economy and with the transportation of people, maritime vessels and goods in and out of the United States exerts some potential security threat and is a functional challenge with the entrance of non-state actors in the post 9/11 era.

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<sup>253</sup> United States, Department of Transportation, *Vessel Calls Snapshot, 2011*, March 2013 (revised November 2013), 1.

<https://www.maritime.dot.gov/sites/marad.dot.gov/files/docs/outreach/data-statistics/6826/vesselcallsatusportssnapshot.pdf>

<sup>254</sup> United States, Department of Transportation, *Waterborne Foreign Trade Containerized Cargo*, Maritime Administration, January 24, 2012.

[https://www.bts.gov/archive/publications/transportation\\_indicators/august\\_2002/Special/Waterborne\\_Foreign\\_Trade\\_Containerized\\_Cargo](https://www.bts.gov/archive/publications/transportation_indicators/august_2002/Special/Waterborne_Foreign_Trade_Containerized_Cargo)

<sup>255</sup> While maritime threats were confined to states actors traditionally, the entrance of non-state actors using commercial and privately owned maritime modes of transportation creates a new security of threat for Canada and the United States.

<sup>256</sup> Matthew Chambers, and Mindy Liu, "Maritime Trade and Transportation by the Numbers", *United States Department of Transportation*, 2011, 1-2.

[https://www.bts.gov/sites/bts.dot.gov/files/legacy/publications/by\\_the\\_numbers/maritime\\_trade\\_and\\_transportation/pdf/entire.pdf](https://www.bts.gov/sites/bts.dot.gov/files/legacy/publications/by_the_numbers/maritime_trade_and_transportation/pdf/entire.pdf)

In fact, for many commodities, maritime shipping remains the most efficient and economically viable mode of transporting goods for trade outside of North America,<sup>257</sup> and is major source of employment in both countries. In Canada, maritime trade was valued at \$205 billion (\$93 billion of exports and \$112 billion of imports) in 2015.<sup>258</sup> Over the period between 2006 and 2015, Canada's international maritime trade totalled \$1.9 trillion which amounts to 20% of international trade.<sup>259</sup> Canada-US marine trade is valued at \$216 billion between 2006 and 2015.<sup>260</sup> While the total dollar value of maritime trade is significantly lower than the United States, the total number of commercial ships' visits that Canada must manage based on its population size and number of ports relative to the United States makes maritime trade significant for Canada as well.<sup>261</sup> In 2001, there were approximately 1.3 million containers unloaded in Canada.<sup>262</sup> In addition, maritime trade between Canada and the United States has also grown significantly. Between 2003 and 2013 maritime trade between Canada and the US grew by 330 percent.<sup>263</sup> There is no indication that this could stop,<sup>264</sup> highlighting the continued importance of maritime trade into the future which elicits cooperation between both countries as trade partners. Moreover, as the BPG notes in its final report, a significant number of ships

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<sup>257</sup> Council of Canadian Academies, *The Value of Commercial Marine Shipping to Canada: The Expert Panel on the Social and Economic Value of Marine Shipping to Canada*, (Ottawa, Ontario: Council of Canadian Academies, 2017), 24, [https://cca-reports.ca/wp-content/uploads/2018/08/ValueMarineShipping\\_fullreport\\_EN.pdf](https://cca-reports.ca/wp-content/uploads/2018/08/ValueMarineShipping_fullreport_EN.pdf)

<sup>258</sup> Statistics Canada, Statistics Canada's Canadian International Merchandise Trade Database, (Ottawa, Ontario: Statistics Canada, 2015).

<sup>259</sup> Ibid.

<sup>260</sup> Ibid.

<sup>261</sup> Allarie explains that in comparing Canada's 2010 maritime trade figure of \$170 billion CAD and the United States' 2011 figure of \$1.73 trillion USD, both countries were comparable given the prevailing exchange rate in the market. See Nicolas Allarie, "Shelf Life Extended: The Longevity and Continued Relevance of the Binational North American Aerospace Defense Command" (master's thesis, University of Manitoba, 2016).

<sup>262</sup> Peter Avis, "Surveillance and Canadian Maritime Domestic Security," *Canadian Military Journal* 4, no. 1 (2003): 10.

<sup>263</sup> United States, Department of Transportation, *US Waterborne Foreign Trade by Trading Partners*, Maritime Administration, 2015.

<https://www.maritime.dot.gov/data-reports/data-statistics/us-waterborne-foreign-trade-trading-partners>

<sup>264</sup> At the time of writing, most recent statistics on trade are being updated as a result of the impact of the COVID-19 coronavirus infection on international trade and the various modes of transporting goods.

importing and exporting goods to and from the continent follow the great circle, via Canadian waters to the United States. Similarly, Canadian shipments from Central and South America transverse US waters on their way to Canada.<sup>265</sup> The functional logic that underscores the maritime warning mission assigned to NORAD by both states arises in part from the interdependence on trade routes and the consequent threat of danger-both along sea routes and transnational threats from state and non-state actors using the maritime trade routes as the mode of carrying out terrorist activities- and entails that both states ensure a timely sharing of maritime intelligence and information.

The United States on the other hand recognizes that its own security is tied to the security of Canada as much as the latter's security is tied to the former and the United States would require Canadian participation to guarantee its own security. For example, on 9/11, when US border inspectors were placed on a level 1 alert,<sup>266</sup> the Canadian government, without hesitation, aided the American government and people as nearly all civilian flights headed to American cities were diverted to Canadian airports.<sup>267</sup> Canada's CF-18 fighters were mobilized through NORAD and the entire Canadian Forces (CF) was placed on a full alert. The CF Disaster Assistance Response Team (DART) from 8 Wing in Trenton, Ontario, was prepared to deploy to the United States.<sup>268</sup> The subsequent war on terrorism in alliance with the United States with both the army and naval forces in Afghanistan, the passage of passed Bill C-36, the Anti-Terrorism Act, and signed a Border Security Declaration with the United States on 12 December

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<sup>265</sup> United States Northern Command, *Bi-National Planning Group: The Final Report on Canada and the United States (CANUS) Enhanced Military Cooperation* (Peterson AFB Colorado: Bi-National Planning Group, March 13, 2006), i, <https://www.hsdl.org/?view&did=462647>.

<sup>266</sup> Peter Andreas, "The Mexicanization of the Us-Canada Border: Asymmetric Interdependence in a Changing Security Context," *International Journal* 60, no. 2 (2005): 458.

<sup>267</sup> Philippe Lagassé, "Northern Command and the Evolution of Canada-US Defence Relations," *Canadian Military Journal* 4, no. 1 (2003): 20.

<sup>268</sup> *Ibid*, 18.

2001, are clear indications not just that Canada take the security of the US seriously but also a recognition that terrorism transcends national borders and could quickly snowball across national borders if ignored. The solidarity shown with the United States is also a reflection of a ‘defence against help’ situation that characterizes Canada-US defence relationship.

While maritime threats are of great individual concern to Canada and the US, they should also be considered an issue of mutual concern, capable of exerting transnational effects, and thus deserving of cooperative action.<sup>269</sup> With the new threat environment, there was a recognized need to shift attention from “blue” waters (external maritime threats) to “brown” littoral waters (homeland maritime threats)<sup>270</sup> and a concerted effort both nations recognized the need to shelve differences in the maritime domain particularly around the contested Northwest Passage<sup>271</sup> in order to work for continental defence. Unlike the air-based threats from the Soviets, the asymmetric nature of threats from the September 11 attacks highlighted a need to re-evaluate possible threats from all domains. The maritime domain gained more focus as it became clear to both Canada and the United States that like the air-based bombings, terrorists and other non-state actors could seize an opportunity to attack civilians, destroy critical and noncritical infrastructure and disrupt trade through continental maritime approaches. Much like the findings from the BPG, US Congressional Report found that some threat scenarios might involve:

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<sup>269</sup> Littoral regions call for synergy between the Army and the Navy to successfully defeat a threat from the maritime approaches. See Elinor Sloan, *The Revolution in Military Affairs Implications for Canada and NATO* (Montréal: McGill-Queen’s University Press, 2002), 10.

<sup>270</sup> Joel Sokolsky, “Sailing in Concert: The Politics and Strategy of Canada-US Naval Interoperability,” *Choices, Institute for Research on Public Policy*, April 2002.  
<https://irpp.org/wp-content/uploads/assets/research/national-security-and-interoperability/new-research-article-8/vol8no2.pdf>

<sup>271</sup>Ernie Regehr, “NORAD Renewal: Further down the Slippery slope?” *Ploughshares Monitor* (2001) 27, no. 3 (2006).  
[https://ploughshares.ca/pl\\_publications/norad-renewal-further-down-the-slippery-slope/](https://ploughshares.ca/pl_publications/norad-renewal-further-down-the-slippery-slope/); Rothwell, Donald R. “The Canadian-US Northwest Passage Dispute: A Reassessment.” *Cornell international law journal* 26, no. 2 (1993): 331–372.

- use commercial cargo containers to smuggle terrorists, nuclear, chemical, or biological weapons, components thereof, or other dangerous materials into the United States;
- seize control of a large commercial cargo ship and use it as a collision weapon for destroying a bridge or refinery located on the waterfront;
- sink a large commercial cargo ship in a major shipping channel, thereby blocking all traffic to and from the port;
- attack a large ship carrying a volatile fuel (such as liquefied natural and detonate the fuel so as to cause a massive in-port explosion);
- attack an oil tanker in a port or at an offshore discharge facility so as to disrupt the world oil trade and cause large-scale environmental damage;
- seize control of a ferry (which can carry hundreds of passengers) or a cruise ship (which can carry more than 3,000 passengers, of whom about 90% are usually US citizens) and threaten the deaths of the passengers if a demand is not met;
- attack US Navy ships in an attempt to kill US military personnel, damage or destroy a valuable US military asset, and (in the case of nuclear-powered ships) cause a radiological release.
- use land around a port to stage attacks on bridges, refineries located on the waterfront, or other port facilities.<sup>272</sup>

Moreover, there is an increasing worry that especially resourceful terrorists may be able to acquire cruise missiles and would choose to launch them against targets in North America from vessels at sea. The maritime domain therefore proved to be a functional challenge due to the large assortment of potential threats that could emanate from the domain, each requiring a unique, tailored response by different groupings of Canadian and American commands and agencies.

## **Conclusion**

Since the adoption of NORAD's maritime warning in 2006, the mission has largely been neglected. In part, this is because maritime NORAD is relatively new, NORAD is "still in the

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<sup>272</sup> John Frittelli, United States Library of Congress, Congressional Research Service, Port and Maritime Security: Background and Issues for Congress, RL31733, May, 2005, 5-6.

development of understanding what that means”<sup>273</sup> and the information and contact linkages with OGDs have not all reached the same level of maturity as the one that exists in the aerospace domain. However, this lack of understanding about NORAD and its activities reflects not just a lack of interest in NORAD but also in defence issues in general by political decision makers, academic community and a lack of public awareness about the value added usefulness of NORAD’s maritime warning.<sup>274</sup> NORAD’s maritime warning role has been limited to issuing advisories to date<sup>275</sup> as it does not have the control function to react to its maritime advisories which fall to the Canadian Maritime Events Response Protocol (MERP) and the US Maritime Operational Threat Response (MOTR) after an warning or advisory is issued.<sup>276</sup>

From a purely functional perspective, the potential threats emanating from the maritime domain could be far reaching and goes beyond any political manoeuvrings as they clearly affect people, their businesses and livelihood. Changing conceptions about security that now involve environmental, economic and social security add a different layer to that threat and therefore requires a technical solution based on the expertise of technocrats. NORAD, with 60 years of experience in a continental warning and defence role (albeit, aerospace centric) along with its capacity as a binational command situated NORAD in a vantage position as the only command that could simultaneously offer a comprehensive assessment of maritime threats from North

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<sup>273</sup> Dana Goward interview in Emelie Rutherford, “Maritime NORAD Remains in Early Stages: Officials Aim to Improve Global Maritime Situational Awareness,” *Inside the Navy* 20, no. 15 (2007): 6–7. <http://www.jstor.org/stable/24842946>.

<sup>274</sup> Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *‘LEFT of BANG’: NORAD’s Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015). [https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

<sup>275</sup> Its first ever warning in 2010 in response to a ship approaching Canada smuggling people didn’t warrant a “warning” meaning imminent threat and so the term “advisories” was created to warn of situations that were problematic

<sup>276</sup> *Ibid.*, 39. Whereas any agency like the DoD, DHS, US Department of Justice can call a MOTR, in Canada, only Public Safety is allowed to call a MERP.

American perspective by verifying COPs from both sides of the border while supporting the sovereignty rights of the national commands by alerting each national command responsible for the security of the maritime approaches within their domain. While the functional logic would have been to assign a warning and defence role in the maritime domain to NORAD, only maritime warning was assigned by decision makers on both sides of the border because warning was considered easier to navigate than a defence role which remained contested on both sides of the border.

Functionalism explains why Canada and the United States have a vested interest in the continental security and in each other's maritime security based on their mutual concerns in trade and cross border movements. Any threats arising from the maritime domain could potentially affect the safety of lives, critical infrastructure and the economy of both nations whether directly or indirectly and it requires a concerted effort removed from political bickering in order to deal with the threat. Therefore, maritime warning offers a more efficient approach of dealing with the threat far from the homeland (a major cradle of US defence policy) while taking into consideration the sovereignty concerns and cost effectiveness for both nations. Functionalism can explain the need for cooperation by both countries by falters in explaining the mode and extent of that cooperation.

## **CHAPTER 4 - Alternatives to maritime warning**

The functional logic that underscores NORAD's maritime warning mission is clear, however, it is insufficient as a stand-alone theory to explain why both countries simply adopted only a warning role for NORAD. It is important to consider other factors, or perhaps other theories that equally underscore the maritime warning mission accorded to NORAD. The BPG acknowledged NORAD's experience in aerospace monitoring, warning, and control as a potential indicator that the command may possess an aptitude for maritime warning mission and Nic Allarie's thesis underscores the functional logic that influenced NORAD's role as binational institution that better equips it to undertake the maritime warning mission. However, these comments fall short of explaining the other drivers that equally played a key role in the adoption of the maritime warning responsibility accorded to NORAD. Why, for example, was maritime surveillance and control left out when in the 2006 renewal of the NORAD agreement in perpetuity? Is functionalism alone sufficient in explaining the addition of maritime warning to NORAD's responsibilities? What are the missing factors that equally explain the addition of a maritime warning role for NORAD? Is there a theory that better explains or jointly explains maritime warning and the exclusion of maritime control to NORAD's mission suite?

NORAD's maritime warning mission can be attributed to the 9/11 attacks and the decision by the United States to focus on homeland security and defence as outlined in its national security documents. The subsequent merger of various agencies involved in intelligence and information sharing as early responders into the Department of Homeland Security (DHS) and Canada's response in its own national security documents and the creation of the Department of Public Safety immediately trailing those of the US reflected not just military response but has a political undertone to demonstrate that Canada takes seriously US security and defence

priorities.<sup>277</sup> While the US created USNORTHCOM, Canada created CANADACOM then CJOCC to address national security and defence. These strategies did not address continental security in depth as the BPG identified the gaps in each of these policies. The BPG sought to develop a more comprehensive security and defence cooperation between the United States and Canada encompassing all domains given their mutual interest in continental defence and security and the novelty of the asymmetric and terrorist threats in the 9/11 era. It was logical to turn to NORAD to address the gaps as it was an already existing binational organization between both countries and had an existing experience in warning and control capabilities albeit in the aerospace domain.

The BPG recognized NORAD was airforce centric but also acknowledged that it was the most suitable organization to achieve an all-domain continental security and defence architecture in the least expensive way and without the need to duplicate existing national structures or create a new organization.<sup>278</sup> Of the proposals made by the BPG to fully integrate the maritime and land domains, only maritime warning was added to the NORAD mission suite in 2006 when the Agreement was signed in perpetuity. The threat from the maritime domain was justified as the most pressing security concern considering the 9/11 attacks by US and Canadian military officials in NORAD and subsequently supported by political decision makers in Ottawa.<sup>279</sup> Maritime warning, would, in theory, address a gap between aerospace and maritime domains but would leave surveillance and control to national commands. Integrating the armed forces on the land domain as part of NORAD's mission suite was rejected due to political concerns and legal

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<sup>277</sup> Bernard Brister, *The Same yet Different: Continuity and Change in the Canada-United States Post-9/11 Security Relationship* (Kingston, Ont: Canadian Defence Academy Press, 2012), 148.

<sup>278</sup> Canada and the United States, *Bi-National Planning Group: Interim Report on Canada and the United States (CANUS) Enhanced Military Cooperation* (Peterson AFB Colorado: Bi-National Planning Group, October 13, 2004), <https://www.hsdl.org/?view&did=461253>.

<sup>279</sup> Canada, The Standing Senate Committee on National Security and Defence, Ottawa: Monday, May 6, 2002.

restrictions, the high cost, and the existence of MOUs permitting the cross-border use of American and Canadian troops to assist in times of need.

The lack of consensus on the immediate actions to ensure continental security and defence initially caused each state to develop a centralized approach or agency to ensure vital pieces of intelligence from the wide range of maritime intelligence-gathering actors. There was also the need to bring all major players to the table with a united front and to develop thinking from a national one to a single North American picture where threats to the continent can be easily and jointly assessed and responded to. NORAD became the best possible choice according to the BPG to coordinate these divergent interests and maritime warning also emerged as the singular component which Canada and the United States eventually agreed to.<sup>280</sup> With NORAD co-located with USNORTHCOM and the commander of NORAD dual-hatted as commander of USNORTHCOM, it was also logical to task NORAD with maritime warning.

There are political, bureaucratic and operational factors that equally contributed to the adoption of maritime warning by Canada and the United States in NORAD which functionalism alone cannot explain. Additionally, while functionalism is useful in understanding the inclusion of maritime warning to the NORAD mission suite, it does not offer a complete explanation for the exclusion of the maritime surveillance and control component. This chapter will focus on those factors and suggest a complementary lens that answers the questions posed about maritime warning and offers a more comprehensive understanding of the rejection of maritime surveillance and control, as well as greater cooperation in the land and cyber space domains amongst others.

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<sup>280</sup> Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *'LEFT of BANG': NORAD's Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015), 9, [https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

The initial binational agreement mandated the organization with air then aerospace warning and control. It is therefore curious that after the events of September 11 attack, only a maritime warning role was accorded to NORAD when the functional logic would have been to also include a maritime control component. Functionalism would argue that the threats posed by the September 11 terrorist attack were not as lethal as those posed by the Soviets' ballistic missiles and as such, an expensive solution involving maritime control would be unnecessary. This argument however falters in that the warning role alone reveals not just the gaps in continental defence calculations but "who" defines what the gaps are and as a result decides the defence priorities. In the 2006 agreement, a fully integrated maritime domain sector would have been the preferred optimal position, but maritime control was rejected by Canadian and US political decision makers to maintain a degree of sovereignty over their affairs. Had decision makers agreed with the BPG's assessment, they would have arguably conceded to a fully integrated maritime defence architecture for the North American coastal and maritime approaches mirroring NORAD's aerospace control mission.

### **Maritime Surveillance and Control**

Maritime surveillance refers to the "maintenance of an observation infrastructure capable of detecting and notifying authorities of conditions, activities or events of interest within ocean areas."<sup>281</sup> Using the definition of 'control' relative to NORAD and how it was used in the definition of Aerospace control mission for NORAD, "Operational control is the authority to direct, coordinate, and control the operational activities of forces assigned, attached, or otherwise

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<sup>281</sup> Scott Coffen-Smout, Fred Crickard and Glen J. Herbert, *Integrated Maritime Enforcement: Principles and Applications* (Halifax: Dalhousie University, 2002), 160.

made available to NORAD.”<sup>282</sup> With regards to the maritime domain, the 2006 agreement adopted by Canada and the United States explicitly stated that: “Maritime surveillance and control shall continue to be exercised by national commands and, as appropriate, coordinated bilaterally.”<sup>283</sup> In other words, while NORAD was effectively tasked with maritime warning, each state’s national command was tasked with both maritime surveillance and control but allowed to collaborate when necessary to ensure the security and defence of North America’s maritime approaches.

Prior to the constitution of the BPG there were indications by US military officials with regards to US strategic military culture and NORAD’s expansion of its mandate based on the comments from key US military officials outside NORAD. US Coast Guard Vice Admiral, Thomas Collins, gave some insight into US military thinking when he asserted that the goal is to have a clear picture of the maritime approaches as far off as possible from US shores on a full time basis.<sup>284</sup> While calling for a ‘NORAD-LIKE’ awareness of the maritime environment, Chief of Naval Operations at the time, Admiral Vernon Clark stated that “I am convinced that responsibility for [this maritime mission] should rest first and foremost with the United States Coast Guard”<sup>285</sup> and “I’m also convinced that there is a role for the United States Navy to play in response and in support of the Coast Guard, bringing our resources to bear wherever they are required.”<sup>286</sup> NORAD’s expertise, experience, technology and resources in providing the needed

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<sup>282</sup> “Agreement Between the Government of Canada and the Government of the United States of America on the North American Aerospace Defense Command.” April 28, 2006, Treaty E105060  
<https://www.treaty-accord.gc.ca/text-texte.aspx?id=105060>

<sup>283</sup> Ibid.

<sup>284</sup> Thomas Collins comments at Institute for Foreign Policy Analysis Conference in Keith Costa, “Navy Chief Calls for ‘Norad-Like’ Awareness of Maritime Environment,” *Inside the Pentagon* 18, no. 13 (2002): 5.  
<http://www.jstor.org/stable/insipent.18.13.01>.

<sup>285</sup> Vernon Clark comments at Institute for Foreign Policy Analysis Conference in Keith Costa, “Navy Chief Calls for ‘Norad-Like’ Awareness of Maritime Environment,” *Inside the Pentagon* 18, no. 13 (2002): 5.  
<http://www.jstor.org/stable/insipent.18.13.01>.

<sup>286</sup> Ibid, 5.

warning and maritime domain awareness for continental defence were therefore invaluable to achieving continental security and defence of the maritime approaches. Command and control were to be vested in the main national authorities.<sup>287</sup> The BPG championed its ambitious goal of full integration, but US political decision makers concurred with assessments of other players in the maritime domain that were already weary of a new (less understood) entrant into the well contested domain.

The impetus for the adoption of NORAD's maritime warning mission is based on the nature of political/military relationship that exists in Canada and the United States. The Canadian political/military relationship is characterized by a bargaining process in which the divergence of interests between political decision makers and the military eventually results in Canadian security interests mirroring US priorities because Canadian military officials define how best to pursue Canadian security interests. With US defence priorities coming from the US Administration to Congress and then passed on to the participating actors in the security and defence architecture of which USNORTHCOM and NORAD play a key role, it is US defence priorities that often take a primal role in continental defence calculations. The presence of Canadian military officials in various forums where these defence policy agreements between both countries are discussed and the absence of Canadian decision makers creates an interacting dynamic in which the latter relies on advice from the former for security and defence policy formulations.<sup>288</sup> This dynamic results in a bargaining process where Canadian decision makers are primarily concerned with balancing the resulting sovereignty concerns both from within the

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<sup>287</sup> Though Clark asserted that he was using NORAD 'symbolically' as a kind of command-and-control apparatus to address how a COP can be obtained, it was ironic that his recommendation eventually materialized when the NORAD agreement was renewed in 2006.

<sup>288</sup> Bernard Brister, *The Same yet Different: Continuity and Change in the Canada-United States Post-9/11 Security Relationship* (Kingston, Ont: Canadian Defence Academy Press, 2012).

civilian political establishment and the public and the US security priorities championed by Canadian military officials who by virtue of their interactions with US military officials at various security and defence forums have prior knowledge of US priorities.

Such a mandate would have required agencies in the maritime domain to overhaul how they respond, share intelligence, information and cooperated between themselves which would not be such a novel idea given that the same action had been carried out in the air domain following the fallout of the 9/11 attacks. There is also no indication that the United States was unable to support a maritime control mission for NORAD as efforts were made to channel resources to increase port security patrols and presence in the US homeland at the expense of other missions in the aftermath of 9/11. The United States Coast Guard's (USCG) reduced its counter-narcotics operations by 75%<sup>289</sup> and reduced its fishery and illegal migration interdiction responsibilities in favour of planning, executing and assessing in terms of the results produced under the Effects Based-Operations (EBO) concept.<sup>290</sup>

By and large, the NORAD maritime warning mission was “developed by NORAD and imposed from above.”<sup>291</sup> The interacting dynamics or the “balancing act” explains why Canada agreed to maritime warning and excluded control when the NORAD agreement was eventually renewed in 2006. Again, functionalism is useful to the extent that it explains NORAD as the

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<sup>289</sup> USCG statistics were taken from the USCG fact file accessed at 02 Aug 2021  
<http://www.uscg.mil/hq/gcp/comrel/factfile/index.htm>

<sup>290</sup> The EBO concept involved planning operations systemically with attention given to the political, legal, economic and operational impact. In his review, Bates demonstrates that, due to resource limitations, the Canadian navy informally adopted a similar stance. Not only was it clear that the United States was prepared to act alone to guard its own interests (through US NORTHCOM), but also that it would serve Canadian interests to cooperate with the United States and shore up its naval capabilities. See W. S. Bates, “The Canadian Navy: Defending the Homeland” (Master’s thesis, Canadian Forces College, 2003), 26-27, <https://www.cfc.forces.gc.ca/259/290/289/286/bates.pdf>.

<sup>291</sup> Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *‘LEFT of BANG’: NORAD’s Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015), 9, [https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

optimal organization for maritime warning given its binational nature as part of both states' continental defence and security cooperation but falls short in explaining the dynamics inherent in the Canadian security and defence policy making process that led to the exclusion of maritime control left to the national level with each agency or institution on both sides being allowed to maintain its roles, responsibilities and mandates in the various assigned jurisdictions. The history of NORAD as an organization is replete with military influences particularly on the Canadian side where the military, for example, provided the advice to the Prime Minister to integrate aerospace command in order to deter, detect and respond to mutual threats from the Soviet Union.

### **Political factors**

The functional explanation masks a critical underpinning of Canada-US defence relations that is crucial to understanding NORAD as a binational institution and explains the slow acquisition of maritime warning as well as the exclusion of maritime control in the 2006 NORAD renewal agreement. Though, both states share mutual concerns in continental security and defence, Canadian agreement to the maritime warning mission reflects a unique interaction that exists between the military and political realms in the defence policy decision-making process which is often ignored in the defence and security community.<sup>292</sup>

First, the adoption of maritime warning and exclusion of maritime control is a fallout from the nature of Canada-US collaborative military relationship and reflects the need to balance Canada's sovereignty concerns with the US defence priorities as outlined in the national security documents and USNORTHCOM AOR that covers the entire jurisdiction of Canada, Mexico and

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<sup>292</sup> Ann Crosby, "A Middle – Power Military in Alliance: Canada and NORAD," *Journal of Peace Research* 34 no. 1, 49.

parts of the Caribbean. American strategic military culture is premised on an offensive capability where security and defence of the homeland is the main preoccupation while Canadian military culture, in line with the Kingston pledge, has been to protect Canada's interests (including security, sovereignty and economic related)<sup>293</sup> as well as contribute to the layered security structure of its closest ally which further guarantees its own security and protects its own sovereignty.

Maritime warning offers a "soft landing" which simultaneously responds to Canadian sensibilities about sovereignty with US military officials in NORAD limited to issuing warnings about possible threats from the North American approaches within the Canadian domain while the various Canadian maritime actors tasked with maritime security and defence are vested with the operational control powers to detect and respond to such threats while equally assuaging American concerns about a more robust and comprehensive and fully integrated continental security and defence architecture. Without this explanation, it is difficult to explain why maritime control was not added to the NORAD mission suite as was control in the aerospace domain.

In the aftermath of 9/11, there were numerous debates about North American security with politicians on both sides of the border expressing divergent views. There were insinuations in the United States, especially from the right, that Canada had become a security liability for the United States.<sup>294</sup> Rumours were rife even among senior political officials that some of the terrorists gained access to the United States through Canada. Although, these allegations were

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<sup>293</sup> Frank Harvey, *The Homeland Security Dilemma: Assessing the Implications for Canada-US Border Security Negotiations* quoted in James Patrick, and Jonathan Paquin, *Game Changer: The Impact of 9/11 on North American Security* (Vancouver, British Columbia: UBC Press, 2014), 45.

<sup>294</sup> Andrea Charron, James Fergusson, Rob Huebert, Joseph Jockel, Ellie Malone, Sara McGuire, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen. *NORAD in Perpetuity? Challenges and Opportunities for Canada*. (Centre for Defence and Security Studies, March 31, 2014).

proved false, the view gained credence that American security was at risk along its largely undefended border to the north.<sup>295</sup> The American political response was to greatly reduce access to the border initially, and eventually arm and thicken policing efforts that extended beyond formal national boundary into more distant approaches.<sup>296</sup> Even in Canada, there was widespread criticism that the Canadian government in Ottawa failed to take the terrorist threat seriously with the failure to properly monitor and control its immigration policies.<sup>297</sup>

Given Canadian realization, not just as a fallout of the events but also throughout history, that it has a duty to make the Americans feel secure about their northern border, Canada began to adopt the United States' policy stance on homeland security by adopting similar structures and policies.<sup>298</sup> In fact, Canadian responses to the United States restriction of the border have been defined in economic terms.<sup>299</sup> An example was The Smart Border Declaration (SBD) signed between Canada and the United States on December 12, 2001.<sup>300</sup> Canada took steps to protect its trade relationship, and by extension, its economy stability and maintained and guaranteed the security of Canadians (in economic and political terms) from stringent border control measures adopted by the US in the aftermath of the 9/11 terrorist attacks. While a purely economic explanation falls short of realizing the functional impetus underlying the Canada-US relationship in relation to NORAD, it provides an understanding of the policy and decision makers' thinking on both sides of the border and the political considerations at play that eventually culminated in

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<sup>295</sup> Joel Sokolsky, "Northern Exposure? American Homeland Security and Canada," *International Journal* 60, no. 1 (2004): 35–52.

<sup>296</sup> Ibid, 43.

<sup>297</sup> Ibid 35.

<sup>298</sup> Ibid, 36

<sup>299</sup> See Carpentier Michel's Master's thesis on "Canada and 9/11: Border Security in a New Era" for a detailed explanation.

<sup>300</sup> "Agreement Between the Government of Canada and the Government of the United States of America for Cooperation in Science and Technology for Critical Infrastructure Protection and Border Security." Conclusion date: December 12, 2001, *Treaty E105000* <https://www.treaty-accord.gc.ca/text-texte.aspx?id=105000>

the adoption of maritime warning without a control component for NORAD. As Jockel notes, in the war on terrorism, “For America and thus its allies, this border policing has become the new “high politics” of international relations”<sup>301</sup> and for Canada, the critical importance of the US economy to Canada’s prosperity meant that Canada had to address any security concerns on its side, both in words and action if it wanted guaranteed access on the economic front.

The adoption of maritime warning by both states served a similar objective as it took into full consideration the interests of both states in relation to the political arena and the prevailing perceptions of Canada-US relations with regards to the new threat environment. The adoption of maritime warning only highlights key trends following the war on terrorism. First, contrary to sovereigntists concerns, it highlighted the serious importance placed on American homeland security concerns and the American acknowledgment of the boundaries on land, in the air and at sea between both states after 9/11. This homeland centric posture, which enveloped American security priorities post 9/11, influenced allied responses, notably Canada’s, to take steps to ensure its own security so as not to become an “easy target” or “weak link” by which asymmetric threats by state and non-state actors could attack the American homeland.<sup>302</sup> Second, maritime warning equally limited control of Canada’s maritime assets to Canadians, thus protecting the sovereignty of Canada. In seeking to reassure Americans that their security will not be threatened

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<sup>301</sup> Joel Sokolsky, “Northern Exposure? American Homeland Security and Canada,” *International Journal* 60, no. 1 (2004): 43.

<sup>302</sup> Though both countries made changes domestically across the spectrum to enhance homeland security and defence, the bent was still towards a more global outlook with the goal of achieving maritime domain awareness to create a layered, integrated, maritime defence designed to detect and defeat potential terrorist threats at the greatest possible distance from shore. This involved gathering actionable intelligence about activities on the water for which NORAD was well suited to verify the information from the national command authorities of both countries after receiving the COP from the US Fleet Forces. For a detailed analysis of the NORAD Maritime Domain awareness, see Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *‘LEFT of BANG’: NORAD’s Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015). [https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

from the North, the Canadian government used maritime warning to also secure the Canadian homeland. Maritime surveillance and control on the other hand would have achieved a much different result which would have been unacceptable to politicians on the right and the left in both Canada and the United States as well as the navies. In their dealings with political decision makers, these calculations were known to NORAD military officials even before the release of the BPG's final report in 2006. NORAD commander Gen. Ed Eberhart opined that both Canada and the United States share maritime picture data but formalizing and expanding with command-and-control mechanism would offer "more than the sum of the two".<sup>303</sup> This statement gives insight to NORAD's a priori knowledge about the political hurdles maritime surveillance and control would have to surmount given that MDA is not as "mature", "sophisticated or as elegant as our monitoring of the airspace."<sup>304</sup>

The outlook of military officials as the "professional" defence and security advisors and their involvement from the problem stage, policy formulation and all the way to the ratification stage creates a dynamic in which the Canadian military can control the information flow to the political environment, thus limiting Canadian policy decision makers to US security and defence priorities. NORAD's maritime warning role, therefore, reflects a situation where Canadian politicians generally concur with Canadian/US military cooperative planning albeit with minimal influence on US defence planning. Canadian policy decision makers are complicit in this process in that they do not exercise sufficient oversight function over the activities of the military establishment in alliance relationships like NORAD.<sup>305</sup>

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<sup>303</sup> Cynthia Pasquale, "Eberhart: Norad Could Expand to Include Maritime Domain," *Inside the Navy* 17, no. 35 (2004): 13.

<http://www.jstor.org/stable/24838543>.

<sup>304</sup> Ibid.

<sup>305</sup> Ann Crosby, "A Middle – Power Military in Alliance: Canada and NORAD," *Journal of Peace Research* 34 no. 1, 49

## **Bureaucratic factors**

Another factor that favoured maritime warning only was the already existing extensive and multifaceted network of collaboration at the bureaucratic levels between law enforcement, intelligence, health, and public safety agencies of Canada and the United States.<sup>306</sup> These long-standing functional ties, which have been so important to bilateral relations in the past, provided the basis for both states to cooperate along the lines of warning considered less prone to political conflict (of the legal sort) unlike surveillance and control on both sides of the border. Prior to 9/11, many bureaucratic actors did not perceive themselves in defence or security terms with threats being confined mostly to traditional threats from states. The non-traditional threat environment emanating from within the continental homeland shifted attention from just traditional security and defence organisations to the multiplicity of bureaucratic organizations that needed to deal with a threat before and after it materialized. For example, while the USN and RCN dealt with threats from other states prior to 9/11, the new threat environment focusing on the homeland meant that various departments, groups and the OGDs that support them work cooperatively to assess, identify, deter, prevent a threat as much as possible and be able to deal with the aftermath of a threat that materializes in the homeland. NORAD had some experience with drug interdiction but providing aerial surveillance support is not the same as engaging with OGDs in control operations. Along with the many commands, and OGDs that make up the maritime architecture and tasked with maritime defence and security, the Canadian ‘Left Side of Bang’ consists of: The Privy Council Office (PCO), Public Safety Canada (PS), Interdepartmental Marine Security Working Group (IMSWG), Canadian Joint Operations Command (CJOC) and the Regional Joint Commands (RJOCs), Canadian Coast Guard (CCG),

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<sup>306</sup> John Higginbotham, “21st century diplomacy: Mapping and Understanding Transgovernmental Networks in Canada-US Relations,” (presentation, Harvard University, April 21, 2004).

Transport Canada (TC), Canada Border Services Agency (CBSA), Royal Canadian Mounted Police (RCMP), Maritime Security Operation Centres (MSOC) and Global Affairs Canada while the United States' side consists of: National Maritime Intelligence-Integration Office (NMIO), US Department of Defense (DoD) and its commands, The Department of Homeland Security (DHS), US Coast Guard (USCG), The United States Department of Transportation (USDOT), the United States Department of State (DoS) and many others.<sup>307</sup>

The extensive interoperability between parallel organizations in the maritime environment on both sides of the border was noted by the BPG. In terms of 'detecting or sensing' within the maritime domain and under the defensive operations mission set, the Canada-United States Maritime East Operations (MAREASTOP) and Maritime West Operations (MARWESTOP) were identified as insufficient mechanisms to facilitate a binational MDA and contribute effectively to detecting or sensing threats in the maritime domain.<sup>308</sup> Maritime warning was therefore recommended by the BPG to replicate the version in the aerospace domain which the FAA uses for cueing passive and active sensors and voluntary compliance.<sup>309</sup> The argument here is that, though maritime defence was equally recommended by the BPG, decision makers on both sides of the border accepted maritime warning as the next logical step given the already extensive bilateral cooperation existing in maritime warning capabilities between both states. As the BPG rightly notes:

Although formal agreements, policies, and procedures are not as robust as in the aerospace domain, significant work has been accomplished toward CANUS interoperability by the MDA working groups, the Office of Naval Intelligence,

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<sup>307</sup> Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *'LEFT of BANG': NORAD's Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015).

[https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

<sup>308</sup> Canada and the United States, *Bi-National Planning Group: Interim Report on Canada and the United States (CANUS) Enhanced Military Cooperation* (Peterson AFB Colorado: Bi-National Planning Group, October 13, 2004), 16, <https://www.hsdl.org/?view&did=461253>.

<sup>309</sup> *Ibid*, 16.

DCDS, USNORTHCOM, NAVNORTH, and the BPG, therefore **X** is bold.<sup>310</sup>

The BPG used the bold 'X' (denoting maritime warning) to emphasize that unlike other domains, there was a basis for which detecting or sensing of potential threats could be properly formalized based on the work of already established groups cooperating in an ad hoc basis in the maritime domain. Apart from the aerospace domain, where there is a relationship in defensive operations across the five operational functions that the BPG examined, it was only in the maritime domain "detect or sense" function that a robust relationship was identified between key actors in Canada and the US. While this is not a determinant of why only maritime warning was adopted,<sup>311</sup> it gave some insight to the understanding available to decision makers about the already existing relationship between the US Battlefield Operating Systems (BOS) and Canadian Combat Functions (CCF) and how best to advance that relationship to ensure continental defence and security. Thus, the BPG's recommendation that a binational solution akin to NORAD and FAA's detection and identification sensors in the aerospace domain was important to achieving full MDA, hence the choice of NORAD, given its many years of experience, in detecting or sensing threats.

Expanding to maritime surveillance and control would have further dragged out the discussion due to the numerous bureaucratic barriers accompanied by cultural organizational differences on both sides of the border as noted by the BPG especially on the civil support side of the maritime domain where no relationship exists at all. In comparison to maritime surveillance and control, maritime warning placed fewer bureaucratic hurdles for decision makers on both sides of the border to get through owing to the extensive links between various

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<sup>310</sup> Ibid.

<sup>311</sup> The BPG identified a less robust relationship and in many cases the lack of existence of any relationship in all domains, especially with regards to the civil support on both sides of the border.

US and Canadian agencies, departments and actors within the maritime environment. Apart from the many benefits to continental security and defence efforts, maritime warning arguably facilitated and contributed to the signing in perpetuity of the NORAD agreement. The same cannot be said about maritime surveillance and control that would have been a more contentious subject not only from within the political establishment both also from the maritime community on the civilian and military side in Canada and the United States.

The push back from the maritime community stemming largely from the suspicion that NORAD's agenda was to eventually take over the entire spectrum of the maritime security mission leaving very little else for other key players and stake holders in terms of resources, and responsibilities<sup>312</sup> also played a role in the choice of maritime warning only. Following numerous testimonies from key defence officials in the maritime sector on the Canadian side, maritime warning seemed more palatable than going all the way to surveillance and control as the preference on both sides of the border was for a national approach to command-and-control operations in the maritime domain rather than a continental approach.<sup>313</sup> Interestingly, the pushback came mainly from mid level bureaucrats and officials as opposed to senior level officials.

On the civilian front, the differences in the culture and belief systems between the different bureaucratic organizations as well as their different responsibilities, mandates, and jurisdictions especially relative to the non-traditional threat environment impact their individual

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<sup>312</sup> 9/11 reconfirmed the need to adapt by adding an internal North American air picture to the existing external one by connecting NORAD to the internal air picture from the American Federal Aviation Administration (FAA) and NAVCANADA and developing agreed protocols for the interception of internal air threats. The BPG highlighted the need to have a similar picture in the maritime domain as a fully automated, binational COP that integrates both military and commercial maritime traffic and assists in identifying vessels of interests did not exist.

<sup>313</sup> See Proceedings of the Standing Senate Committee on National Security and Defence, May 6, 2005. <https://sencanada.ca/en/Content/SEN/Committee/381/defe/21evd-e>

threat assessments and responses.<sup>314</sup> As noted by Vice Admiral Maddison, the military is not the first responder when non-traditional threats materialize in Canada.<sup>315</sup> Similarly, at an October 2004 seminar, Rear Admiral Arthur Brooks, deputy director of operations at USNORTHCOM, stated that civil authorities would be in charge in the event of a domestic terrorist attack and not the USDoD.<sup>316</sup> National Armed Forces are often employed to provide assistance and defence support to civil authorities but lack the legal and jurisdictional power as the threats are generally seen in policing or constabulary terms.<sup>317</sup> The net result is the inefficient use of limited resources.<sup>318</sup> With budget constraints and limited resources available but with the pressing need to shore up maritime security, maritime warning therefore offered a sufficient enough role for NORAD within the capability of both states.<sup>319</sup> Maritime surveillance and control on the other

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<sup>314</sup> Andrea Charron, James Fergusson, Rob Huebert, Joseph Jockel, Ellie Malone, Sara McGuire, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen. *NORAD in Perpetuity? Challenges and Opportunities for Canada*. (Centre for Defence and Security Studies, March 31, 2014), 19.

<sup>315</sup> Proceedings of the Standing Senate Committee on National Security and Defence, May 6, 2002.

[https://sencanada.ca/en/Content/SEN/Committee/371/defe/14eva-e?Language=E&Parl=37&Ses=1&comm\\_id=76](https://sencanada.ca/en/Content/SEN/Committee/371/defe/14eva-e?Language=E&Parl=37&Ses=1&comm_id=76)

<sup>316</sup> Sokolsky, Joel. "Northern Exposure?: American Homeland Security and Canada." *International journal* (Toronto) 60, no. 1 (2004): 43.

<sup>317</sup> Andrea Charron, James Fergusson, Rob Huebert, Joseph Jockel, Ellie Malone, Sara McGuire, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen. *NORAD in Perpetuity? Challenges and Opportunities for Canada*. (Centre for Defence and Security Studies, March 31, 2014).

<sup>318</sup> *Ibid.* While the navy does not have the legal authority to arrest illegal immigrants, including terrorists, their capability is invaluable to transport police and immigration officials and provide for their protection during the interception and boarding process. The Navy's burden is further compounded by the need for surveillance in the Arctic given the effects of climate change and the melting polar ice caps. The expected increased transportation and resource development activity relative to the costs of operations and infrastructure in the Arctic therefore created a need to establish a warning role for NORAD.

<sup>319</sup> A Canadian senate report in 2002 highlighted that satellite technology already provided surveillance over Canada's long coastline though in limited capacity and though it would make sense to increase technological developments to close the gap, the high cost of technology made traditional means for surveillance like the Aurora long-range patrol aircraft and naval vessels will continue to be the main tools with which to monitor activities along Canada's shores more palatable. Surveillance on the US side resides with the US Coast Guard that uses wide area surveillance, detection, classification, and identification to contribute to MDA. For full details see, House of Commons, Standing Committee on National Defence and Veterans Affairs, *Facing Our Responsibilities: The State of Readiness of the Canadian Forces*, 2002, 66.

<http://www.parl.gc.ca/InfoComDoc/37/1/NDVA/Studies/Reports/ndvarp04-e.htm> and Andrea Charron, James Fergusson, Nicolas Allarie, Anastasia Narkovich, Joseph Jockel, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen, *'LEFT of BANG': NORAD's Maritime Warning Mission and North American Domain Awareness* (University of Manitoba: Centre for Defence and Security Studies, 2015), 32, [https://umanitoba.ca/centres/media/0\\_NORAD\\_Maritime\\_Warning\\_Mission\\_Final\\_Report\\_8\\_Oct\\_2015.pdf](https://umanitoba.ca/centres/media/0_NORAD_Maritime_Warning_Mission_Final_Report_8_Oct_2015.pdf).

hand were limited to national control as it allowed each state to efficiently and effectively allocate limited resources to the best possible use for which a continental approach could have arguably been more expensive.

There was also the issue of ensuring the free and open flow of information among all the maritime actors nationally, and between the two nations.<sup>320</sup> In some cases, many organizations, including the military, have closer links with the counterparts across the border, than with other bureaucratic actors within their borders.<sup>321</sup> Ensuring unity of command within the maritime environment of diverse threats that cut across bureaucratic boundaries presented a major challenge which the BPG identified. Given that the sharing of intelligence and information is crucial to defence calculations and bureaucratic interests often inform and drive decisions and actions, maritime warning was imperative to develop a truly North American COP. NORAD, viewed as a newcomer and interloper in the maritime defence architecture if assigned a maritime surveillance and control, would arguably have been contentious and further driven these organizations apart in comparison to maritime warning.

With NORAD being drafted into the maritime domain, decision makers on both sides of the border considered it new grounds for NORAD which needed more understanding of the new domain. As Bergeron, co-director of the BPG noted, “One of the key aspects [of maritime domain awareness] is information exchange and allowing that exchange to happen in an optimal way”.<sup>322</sup> A major challenge was that midlevel bureaucrats in both Canada and the United States

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<sup>320</sup> The BPG rightly identified the legal and bureaucratic constraints with information sharing both within and between various actors in the maritime domain across the border and the need to move from a need-to-know to a need-to-share information and intelligence sharing model.

<sup>321</sup> Andrea Charron, James Fergusson, Rob Huebert, Joseph Jockel, Ellie Malone, Sara McGuire, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen. *NORAD in Perpetuity? Challenges and Opportunities for Canada*. (Centre for Defence and Security Studies, March 31, 2014), 19.

<sup>322</sup> Zachary Peterson, “‘Cultural Barriers’ Remain a Challenge: REPORT: US, CANADA MUST WORK TO IMPROVE MARITIME DOMAIN AWARENESS,” *Inside the Navy* 19, no. 18 (2006): 13, <http://www.jstor.org/stable/24840066>.

withhold cooperation and information sharing “not out of ill intent or from a failure to follow clear political direction to cooperate. Rather they hold back because they are receiving conflicting data, because no new rule set was issued for this new binational endeavour, and because the safest route at the end of the day is to withhold information.”<sup>323</sup> Maritime warning as opposed to maritime surveillance and control therefore offered sufficient grounds to the new domain – which involved “breaking some cultural barriers” and “building trust” between organizations<sup>324</sup> - without the need to increase costs or duplicate already existing structures and policies which could chalk up political animosity and strain the move into the new domain.

### **Operational factors**

The geographic constants of isolation, large maritime approaches, long border, shared navigable waterways to mention a few, have fundamentally affected North American defence relations.<sup>325</sup> Canada is bordered by three oceans, the United States, and space above.<sup>326</sup> The sheer size, the funding cost, resource availability and the many players in the maritime domain make it practically difficult to develop a comprehensive understanding that encompasses maritime surveillance and control. Further, unlike the aerospace domain, the maritime domain does not require 24/7 surveillance. It will be functionally and practically difficult to do so given the geographic size of the area for both countries bordered by oceans and having many brown

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<sup>323</sup> Eric Lerhe, “Will We See a Maritime Norad?” *Journal of Military and Strategic Studies* 9, no. 2 (2007).

<sup>324</sup> Ibid.

<sup>325</sup> Kimball Anessa. Future Uncertainty, Strategic Defense, and North American Defense Cooperation: Rational Institutional Arguments Pragmatically Suggest NORAD’s Adaptation Over Replacement in Christian Leuprecht, Joel Sokolsky, and Thomas Hughes, *North American Strategic Defense in the 21st Century: Security and Sovereignty in an Uncertain World*, 1st ed. (Cham: Springer International Publishing, 2018), 122.

<sup>326</sup> Stephenson, Alan. Securing the Continent: Where is NORAD Today? Canadian Defence & Foreign Affairs Institute and Canadian International Council. 2011.  
[https://d3n8a8pro7vhmx.cloudfront.net/cdfai/pages/95/attachments/original/1413683521/Securing\\_the\\_Continent\\_Where\\_is\\_NORAD\\_today.pdf?1413683521](https://d3n8a8pro7vhmx.cloudfront.net/cdfai/pages/95/attachments/original/1413683521/Securing_the_Continent_Where_is_NORAD_today.pdf?1413683521)

waters that serve as trade and transportation routes between both countries as well as external states plying these routes to the continent.

Operationally, adding surveillance and control to the NORAD mandate would have inserted two players on each side (Coast Guard and the Navy).<sup>327</sup> As Findley, former NORAD Deputy Commander, concluded “we looked at control (for the 2006 renewal) but (it) never (caught on). It was a bridge too far. There was this sense of why do we need to do this bilaterally, this is a national vulnerability, it’s a national thing to deal with, we have a great Navy and Coast Guard so why do we need a continental approach”.<sup>328</sup> Maritime surveillance and control were therefore, largely defined as issues that should be dealt with at the national level<sup>329</sup> compared to maritime warning that required a more proactive and global outlook (in line with NORAD military officials “away game” posture) of which NORAD was well suited to handle.

Despite the logic of centralising efforts, former Canadian Defence Minister Graham points to inter-service coordination being the most important reason why the maritime mandate was limited. Graham stated about maritime warning that, “there is a good reason to have that under control of NORAD but when you try to apply that and you got a US system where the

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<sup>327</sup> Kimball Anessa. “Future Uncertainty, Strategic Defense, and North American Defense Cooperation: Rational Institutional Arguments Pragmatically Suggest NORAD’s Adaptation Over Replacement” in Christian Leuprecht, Joel Sokolsky, and Thomas Hughes, *North American Strategic Defense in the 21st Century: Security and Sovereignty in an Uncertain World*, 1st ed. (Cham: Springer International Publishing, 2018), 132.

<sup>328</sup> Findley Rick (2014) Interview on 14 Feb 2014. NORAD Deputy Commander, 2006 NORAD renewal in Kimball Anessa. “Future Uncertainty, Strategic Defense, and North American Defense Cooperation: Rational Institutional Arguments Pragmatically Suggest NORAD’s Adaptation Over Replacement” in Christian Leuprecht, Joel Sokolsky, and Thomas Hughes, *North American Strategic Defense in the 21st Century: Security and Sovereignty in an Uncertain World*, 1st ed. (Cham: Springer International Publishing, 2018), 132.

<sup>329</sup> In May 2009, Canada and the United States signed an Integrated Cross-Border Maritime Law Enforcement Operations, also known as Shiprider which it defined as a bi-national initiative between the RCMP and the USCG that authorizes Canadian and American law enforcement officers to work together to enforce the law on both sides of the border in shared waters where the “host” country is assisted by the officers of the “visiting” country and operational control is vested on the officials of the home country in accordance with its laws, policies and procedures. See Public Safety Canada. " Framework Agreement on Integrated Cross-Border Maritime Law Enforcement Operations Between the Government of Canada and The Government of the United States of America”.

<https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/frmwrk-grmnt-ntgrtd-crss-brdr/index-en.aspx>

Coast Guard has control of coastal waters out to 200 miles, then you got the Navy. So, there was a kind of turf war between the Navy and Coast Guard.”<sup>330</sup> In other words, bureaucratic politics due to increased actor number in the context of adapting an existing arrangement are magnified under the uncertainty of negotiating new arrangement including all of NORAD’s current responsibilities plus the full strategic defense mandate. The risk of negotiation failure adds another problematic layer in the current political environment and favoured the option of leaving the out maritime surveillance and control or keeping the NORAD arrangement intact until a successful replacement structure was ‘in force’.<sup>331</sup>

## **Land**

Another opportunity for further integration which the BPG identified involved the land forces of Canada and of the United States. Land forces have the capability and resources not only to defend the sovereignty and territorial integrity from state and non-state actors but also provide assistance in domestic civil operations in Canada and defense support to civil authorities (DSCA) in the United States. Where law enforcement may not have the resources or capability to fulfil their security function, land forces can provide assistance to the first responders and are resourceful in defence preparedness with capable nuclear, chemical, biological and radiological response teams. Clearly, if there was well orchestrated attack on a large scale to ever occur the civil authorities would require significant help to deal with the aftermath which was the case after 9/11. Military assistance would therefore be invaluable in meeting those demands which could very well require one state’s armed forces entering the homeland of the other. The military simultaneously provides a ready and available source of personnel and the experience and

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<sup>330</sup> Ibid.

<sup>331</sup> Ibid.

expertise to help maintain order and to aid first responders.<sup>332</sup> It is therefore imperative that both states have an agile and capable military to provide support to the first responders whenever the need arises.

The BPG identified that while there were multiple bilateral agreements allowing for the cooperation of the land forces of both states, they are not as integrated as those that exist in the air domain, especially as is applicable to NORAD.<sup>333</sup> There is a functional need to cooperate in this domain by both states as it will be useful to have land forces capable of providing assistance to the civil authorities. For example, in the event of a terrorist attack in Canada, it is likely that such an attack would most likely occur in Canada's most populated areas, near the Canada-US border.<sup>334</sup> Assuming the CAF is badly affected by the event, having US forces, who could also respond, might be the only option to save lives and given that the US has a larger military, more resources and a larger National Guard,<sup>335</sup> Canada would welcome the help.

Similarly, in the event of a natural disaster which many cities in the US are prone to, it would be useful to have Canadian forces able to gain unhindered access to provide support to civil authorities. The effects of a major attack and a naturally occurring event, such as flood or hurricane, requires politicians on both sides of the border to seriously consider the political impact of not providing a timely and adequate demand response in comparison to the sovereignty concerns. Such an expanded cooperation "would put in place the wherewithal to increase

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<sup>332</sup> MacDonald, George. "Canada-US Defence Cooperation: Where to From Here? Building On Strengths, Understanding Each Other, Expanding Horizons." *Canadian Military Journal* 6, no. 2 (2005): 9.

<sup>333</sup> The BPG identified a less than robust relationship in all five defensive operations plus the 'defend, defeat and act' operations on the civil support side in the land domain. No formal plans or agreements existed whatsoever existed for the other four civil supports in the land domain. See Canada and the United States, *Bi-National Planning Group: Interim Report on Canada and the United States (CANUS) Enhanced Military Cooperation* (Peterson AFB Colorado: Bi-National Planning Group, October 13, 2004), <https://www.hsdl.org/?view&did=461253>

<sup>334</sup> MacDonald, George. "Canada-US Defence Cooperation: Where to From Here? Building On Strengths, Understanding Each Other, Expanding Horizons." *Canadian Military Journal* 6, no. 2 (2005): 9.

<sup>335</sup> *Ibid.*

readiness through the identification of resources, contingency planning and exercises.”<sup>336</sup>

Knowing the specific effects of a major attack or natural disaster in advance would be difficult and NORAD offered a binational solution where the common elements to the mounting, organization and management of a response<sup>337</sup> that can be established and practiced in advance.<sup>338</sup>

A mutual cross-border arrangement<sup>339</sup> between both states will therefore be useful to both states where the forces of one state can enter the territory of the other upon request in the event of a natural disaster or attack (This exists via many bilateral agreements that need to be refreshed and exercised). The provision of this form of assistance is clearly in the interest of both countries but leans more to the advantage of Canada in terms of its ability to protect its sovereignty by having a seat at the table while borrowing military and civil help from the United States. The consequences of an attack on one state will affect the other directly and indirectly given the geographical proximity, economic interdependence and cultural similarity between both states. The loss of power supply, the damage to critical infrastructure and the US industry, and so on, makes such an event a binational issue,<sup>340</sup> but the politically sensitive nature of this domain keeps it off the table as an option.

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<sup>336</sup> Ibid, 10.

<sup>337</sup> Ibid.

<sup>338</sup> The BPG’s call for a binational solution to address the seams and gaps through joint military trainings and rehearsal of cross-border troop movements and military assistance to Public Safety and Emergency Preparedness Canada (PSEPC) and the United States Department of Homeland Security (DHS) were ignored by decision makers in the 2006 NORAD agreement.

<sup>339</sup> The United States has been conducting air preclearance (i.e. at airports) in Canada since 1952 under various arrangements and while the “Air Transport Preclearance Agreement” provided a legal basis for operations between 2002 to 2019 for only air travellers. other modes of transport or cargo operations. See Public Safety Canada. “Preclearance in Canada and the United States”<https://www.publicsafety.gc.ca/cnt/brdr-strtg/prclmc/index-en.aspx> Also see, Public Safety Canada. “Canada-United States Cross-Border Crime Forum”  
<https://www.publicsafety.gc.ca/cnt/brdr-strtg/crss-brdr-crm-frm-en.aspx>

<sup>340</sup> MacDonald, George. “Canada-US Defence Cooperation: Where to From Here? Building On Strengths, Understanding Each Other, Expanding Horizons.” Canadian Military Journal 6, no. 2 (2005): 10

Politically, the integration of the land domain is the most contentious,<sup>341</sup> especially in Canada where sovereignty concerns are often rife. Even for the United States, it could have been an uphill task for politicians to defend allowing the forces of a different country into the United States especially when its own regular forces are prevented from operating within continental United States owing to the Posse Comitatus Act. Given its military might, it could draw the ire of the public and politicians are weary of the impact on their careers. On the bureaucratic front, the Smart Border initiative to improve cooperation between both countries with corresponding agencies and government departments working to “(1) the secure flow of people, (2) the secure flow of goods, (3) secure infrastructure, and (4) information sharing and the co-ordination in the enforcement of these objectives”<sup>342</sup> was sufficient for both states and moved with great urgency due to the securitization, the weight of US influence and the political will of decision makers in both states.<sup>343</sup> Unsurprisingly, further integration into the land domain was ignored in the 2006 NORAD Agreement.

The assurance of both suspenders (perimeter security arrangements with its neighbours and allies) and the belt (security measures on the Mexico-US and Canada-US borders),<sup>344</sup> which

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<sup>341</sup> The existing bilateral arrangements governing the provision of military support to civil authorities across the border, such as, for example, American military support in the case of the 1997 Ice Storm and the Vancouver Olympics or Canadian military support in the wake of Hurricane Katrina were considered sufficient by politicians on both sides. See

<sup>342</sup> Among other components of the smart border initiative, Canada and the United States developed The NEXUS program, a high-tech screening and surveillance system, Free and Secure Trade program (FAST), increased spending to border and port infrastructure, and an Integrated Border Enforcement Teams (IBETs) program to improve communication and coordination between American and Canadian officials of United States Customs and Border Protection (USCBP), the US Coast Guard (USCG), Immigration and Customs Enforcement (ICE), the Canada Border Services Agency (CBSA), and the Royal Canadian Mounted Police (RCMP). For details see, Lennox, Patrick. “From Golden Straitjacket to Kevlar Vest: Canada’s Transformation to a Security State.” *Canadian journal of political science* 40, no. 4 (2007): 1031; Public Safety Canada. 2006. “Integrated Border Enforcement Teams.”

<http://www.psepc-sppcc.gc.ca/prg/le/bs/ibet-en.asp>

<sup>343</sup> Lennox, Patrick. “From Golden Straitjacket to Kevlar Vest: Canada’s Transformation to a Security State.” *Canadian journal of political science* 40, no. 4 (2007): 1032.

<sup>344</sup> Joel Sokolsky, and Philippe Lagassé, “Suspenders and a Belt: Perimeter and Border Security in Canada-US Relations,” *Canadian Foreign Policy Journal* 12, no. 3 (2006): 15–29.

both states wanted resulted in national and bilateral measures post 9/11. However, the reasons for wanting assurances of the belt and suspenders are different for both states. For the Pentagon, despite the policy shift towards homeland security in the aftermath of 9/11 with tougher border restrictions, its overall global outlook to guarantee the security and defence of its territory means that for its security to be guaranteed on the continental front (as part of its layered defence) its neighbours and allies, as well as the security measures on the entry and exit points to the US homeland, had to be further strengthened. However, it was decided that the creation of USNORTHCOM and DHS<sup>345</sup> among other measures, were the priority rather than reliance solely on Mexico and Canada to strengthen their security architecture.

Ottawa recognized that the perimeter approach would be viewed as a threat to Canadian sovereignty because acceptance of the perimeter approach meant Canada was mirroring American policies and practices and even more worrisome, that Canada might be expected to accept 'help' from the United States should Washington deem it necessary.<sup>346</sup> The creation of CANADACOM, which later became CJOC, and the rejection of further integration into the land domain can therefore be considered 'defence against help' by Canada<sup>347</sup> in that while Canada rejected the United States' proposal for a more extensive integrated defence cooperation, the creation of a new national authority for homeland defence ensured that Canadian defence issues was not entirely left to the USNORTHCOM and Canada had a say in the joint effort for continental defence.

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<sup>345</sup>Lagassé, Philippe. "Nils Ørvik's 'Defence Against Help': The Descriptive Appeal of a Prescriptive Strategy." *International Journal* (Toronto) 65, no. 2 (2010): 463–474.

<sup>346</sup> *Ibid*, 472.

<sup>347</sup> Canadian Defence Minister at the time Bill Graham is credited with saying "When I go down to the United States and I see Mr. Rumsfeld and go to Congress I'll be able to say: 'Look, we're taking steps in Canada. You don't have to worry about Canada. It sends up comfort levels that we know we're reliable partners in the defence of North America". See Wattie, Chris. "Canada's Homeland Defence Team Names its First Commander." *National Post*, June 29, A6, 2005.

However, politicians in Ottawa were acutely aware that a national approach to continental security could be detrimental to the Canadian economy and the resulting political fallout could spell doom for their political fortunes given the likely impact on the livelihoods of Canadians dependent on US markets. With a significant amount of trade and transportation of goods and people<sup>348</sup> across the border, an entirely nationalist approach would send the wrong signal to the Pentagon and the Americans in general that Canada did not take American security seriously. Additionally, the Canadian government was weary of its border being treated as a security threat with policies like Mexico. As a result, the Canadian government emphasized a bilateral approach to North American security and worked to convince the United States to think along similar lines. This focus on the border and bilateral cooperation was initiated by Liberal governments, but the strategy continued under Conservative governments.<sup>349</sup> Despite the differences, both states recognized the importance of the border and share a mutual respect for national boundaries since 9/11.

The subsequent choice of maritime warning over further integration in the land domain is therefore a reflection of the need to further signal that continental security is important to Canada as it is to the United States. Maritime warning lends credibility to the interdependent security of both countries while respecting the sovereignty and territorial integrity of both states. Maritime warning, unlike integration in the land domain, simultaneously meets continental security

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<sup>348</sup> Approximately 300,000 people cross the Canada-US border every day. For details see, Lennox, Patrick. "From Golden Straitjacket to Kevlar Vest: Canada's Transformation to a Security State." *Canadian journal of political science* 40, no. 4 (2007): 1017–1038.

<sup>349</sup> Like their predecessors, Conservative Prime Minister Stephen Harper and his Cabinet understood the importance of maintaining the borders as well as the benefits of bilateral arrangements over trilateral agreements to Canada which was the focus at the March 2006 Security and Prosperity Partnership (SPP) summit. For details see Joel Sokolsky, and Philippe Lagassé, "Suspenders and a Belt: Perimeter and Border Security in Canada-US Relations," *Canadian Foreign Policy Journal* 12, no. 3 (2006): 15–29. Also, for more recent updates on Canada-US perimeter security and economic competitiveness, see Public Safety Canada, 'Beyond the Border: A Shared Vision for Perimeter Security and Economic Competitiveness' <https://www.publicsafety.gc.ca/cnt/brdr-strtrgs/bynd-th-brdr/ctn-pln-en.aspx>

expectations and allows control to their respective national authorities on their own terms as equally sovereign states. Like the bilateral smart border initiative between both states, future integration efforts in the land domain under a binational approach will be driven not only by the threat environment but also an effective bureaucracy and the political will of American and Canadian decision makers.

## **Cyberspace**

The BPG identified the cyberspace as critical to information and intelligence sharing between Canada and the United States. The integrated nature of North American economy and society that is largely dependent on the internet and increasingly technological advances in the cyber realm makes it easily susceptible to attacks. The interconnectedness of information or Intelligence, Surveillance, Reconnaissance (ISR) makes the cyber realm one that could potentially be addressed binationally, but this was not included in NORAD's mission suite when it was renewed in 2006. Among other non-traditional threats, the cyber world is the most persistent and its constantly evolving nature with many technological improvements further complicates it.

In terms of Canada-US defence cooperation and NORAD's role within it, it is difficult to see a specific role for NORAD in the cyber realm as in the warning/control component.<sup>350</sup> In part this stems from the nature of the cyberspace itself that is not limited to only the government of both states. Non-state actors can exploit it to threaten North American security and defence. Thus, placing a binational NORAD at the centre of a North American cyber warning cooperation

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<sup>350</sup> Andrea Charron, James Fergusson, Rob Huebert, Joseph Jockel, Ellie Malone, Sara McGuire, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen. *NORAD in Perpetuity? Challenges and Opportunities for Canada*. (Centre for Defence and Security Studies, March 31, 2014).

arrangement could be challenging. More appealing might be a multilateral security framework to deal with threats in this domain.<sup>351</sup> To be sure, NORAD still has a role to play. It is directed to ensure the security of its own cyber assets. As well, because its systems are linked to those of the national authorities of both states, the quality of information NORAD receives is dependent on the accuracy and secure flow of data from the national authorities and other key stake holders in the cyber world.<sup>352</sup> The integrated communication networks between Canada and United States<sup>353</sup> means that an attack on the systems of one will directly or indirectly impact operations in the other so it is equally important to ensure that data links are not vulnerable to offensive or exploitive attacks.<sup>354</sup>

The complicated nature of the cyber domain holds the potential for a fundamental change in military operations which is not yet fully understood by politicians, the military and even civilian agencies on both sides of the border. Its complicated nature, constant evolution and myriad actors create layers of complexity that may account for why cyberspace was largely ignored. Unless there is a serious threat with debilitating connections to continental security and defence, the status quo is unlikely to change, notwithstanding the recent entrance of states like Russia and China which have mastered t covert cyber attacks on states.<sup>355</sup> Proving a cyber crime is challenging given the ability of aggressors to cover their tracks making it difficult to

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<sup>351</sup> Andrea Charron, and James Fergusson, “Beyond Modernization” quoted in Christian Leuprecht, Joel Sokolsky, and Thomas Hughes, *North American Strategic Defense in the 21st Century: Security and Sovereignty in an Uncertain World*, 1st ed. (Cham: Springer International Publishing, 2018), 141-148.

<sup>352</sup> Andrea Charron, James Fergusson, Rob Huebert, Joseph Jockel, Ellie Malone, Sara McGuire, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen. *NORAD in Perpetuity? Challenges and Opportunities for Canada*. (Centre for Defence and Security Studies, March 31, 2014), 45.

<sup>353</sup> No nation’s network is completely isolated from other networks as a software vulnerability or a sophisticated virus attack on one country’s system or network can easily be transferred to the other.

<sup>354</sup> Ibid, 45.

<sup>355</sup> Since 2009, apart from the robust build-up of conventional forces, Russia has made significant investments in information warfare, cyber capability, and mass media manipulation. See Katz, Mark. Putin’s Security Policy and Its Implications for NORAD. In Christian Leuprecht, Joel Sokolsky, and Thomas Hughes, *North American Strategic Defense in the 21st Century: Security and Sovereignty in an Uncertain World*, 1st ed. (Cham: Springer International Publishing, 2018), 20.

justify retaliation.<sup>356</sup> In addition, legal limits around information sharing by the various national agencies and departments tasked with cyber information complicates the work in this yet to be understood and ever dynamic domain. Sapolsky notes that the United States invests over US\$70 billion a year in military related research, development, test and evaluation, yet when “technological knowledge diffuses; it cannot be stopped”.<sup>357</sup> The ability of states like China and other non-states actors to equally engage and increase investment in the cyber domain poses a significant challenge to continental security efforts of Canada and the United States because technological knowledge cannot be hoarded and can easily be adapted by a potential aggressor.

Further, the interconnectedness of the cyber domain, which involves the input of civilian cyber world, to effectively coordinate defence objectives while carrying out business and personal activities adds another layer to this complicated domain. For example, NORAD receives feeds not only from national defence networks like USNORTHCOM but also from civilian networks as part of its warning mission, thus making its cyber networks susceptible to say, a virus attack from the external network.<sup>358</sup> This would not pose so much of a challenge as NORAD takes steps to prevent such an overarching attack of its systems but the nature of warning in the cyberspace domain makes it more complex than it appears. Unlike the maritime and aerospace domain, where a time lag exists, no matter how short, between the identification of a potential threat and a response, time is critical in the cyber world as an attack is almost

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<sup>356</sup> Ibid. As a function of the global internet, cyber attacks are generally extremely difficult to trace back to their origin. Even when some success is achieved, another major challenge is establishing the motivation for the attack, which could be personal or for potential terrorist attacks.

<sup>357</sup> Harvey Sapolsky, “Hoping Primacy Stays Cheap: America’s Grand Strategy” quoted in Christian Leuprecht, Joel Sokolsky, and Thomas Hughes, *North American Strategic Defense in the 21st Century: Security and Sovereignty in an Uncertain World*, 1st ed. (Cham: Springer International Publishing, 2018), 66.

<sup>358</sup> Andrea Charron, James Fergusson, Rob Huebert, Joseph Jockel, Ellie Malone, Sara McGuire, Joel Sokolsky, Alan Stephenson, and Matthew Trudgen. *NORAD in Perpetuity? Challenges and Opportunities for Canada*. (Centre for Defence and Security Studies, March 31, 2014), 46.

instantaneous, making it difficult to distinguish warning from attack.<sup>359</sup> Therefore, a functional need exists to create a binational solution not only to coordinate cyber security policies, procedures and software among all of the cyber nodes within the integrated North American defence network but also facilitate information sharing to ensure that all actors, whether civilian or military, are fully aware of relevant cyber events whenever or wherever they occur within the integrated cyber environment. The extent to which a binational solution (if at all, as a multilateral and bilateral one is also a plausible option) is the considered by both states is a function of the assessment of the cyber threat level posed by the aggressor among other political, bureaucratic, operational and cost implications by both Canada and the United States.

In addition, the presence of private sector businesses as crucial actors in the cyberspace domain raises another unique feature of this domain, one that has made it complicated for the military and decision makers in both states alike. The dilemma here arises from the ‘critical infrastructure’ nomenclature. What is considered a private infrastructure by a private (or even public) company could very well snowball into a critical infrastructure issue, requiring nationalization if a potential aggressor, for example gains control of its cyber systems. An example is the ability of hackers to access taxpayers’ information with the Canada Revenue Agency (CRA) which holds information about critical Canadian businesses, assets and economic data, thus posing an economic and potentially security threat to Canadian lives, businesses and property. The effect could have far-reaching consequences not only for Canada but also the United States and by extension North America if one considers that American businesses and taxpayers are likely to have their information in Canadian systems. Threat of repeated attacks

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<sup>359</sup> Ibid.

and the challenge of identifying the nature or purpose of the attack, which characterize threats in the cyber world, could further exacerbate the issue, driving confidence in the economy lower.

Further, information warfare is another underpinning of the cyber domain that complicates the regulation of this domain by decision makers who are not well versed in the ins and outs of this domain. While a binational effort is understandably difficult to pursue in this regard, ongoing Canada-US security and defence cooperation must be aware and prepare for the increased power of information warfare which when designed and successfully released has the power to undermine social cohesion, sow suspicion and distrust for political purposes.<sup>360</sup> Examples include the use of social media by former American President Donald Trump to incite supporters about unfounded claims of electoral malpractices with the American elections, Russia's use of hybrid war techniques in neighbouring countries, the use of social media to interfere in electoral processes in the US and France and the use of the internet by violent extremist groups for radicalization, recruitment, and incitement to violence.<sup>361</sup> The main challenge with this type of warfare is that the cyberworld arises from the freedom of speech versus threats to human rights of life and safety of properties. Finding the right balance between monitoring/regulating versus controlling social media platforms and the dissemination of information is proving vexing. Mal, mis and disinformation are proving very difficult to manage. In fact, it is not difficult to envision a situation where the cyber domain could be used to undermine political support for North American security and defence cooperation.<sup>362</sup>

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<sup>360</sup> Allen Sens, "Canada's New Defence Policy and the Security of North America" quoted in Christian Leuprecht, Joel Sokolsky, and Thomas Hughes, *North American Strategic Defense in the 21st Century: Security and Sovereignty in an Uncertain World*, 1st ed. (Cham: Springer International Publishing, 2018), 118.

<sup>361</sup> Ibid.

<sup>362</sup> Ibid. Creating dissonance between missions and the public as a means of weakening the credibility various security institutions which potential terrorists could exploit if left unchecked.

Responses must include robust measures to counter these efforts, while ensuring that domestic debate is free and informed.

The cyber domain, therefore, holds the potential to become the most pervasive and destructive source of threats to Canada and the United States in the 21<sup>st</sup> century and beyond because threats in the cyber domain blur the distinction between external and internal, rendering strictly national solutions as less sufficient or effective. In addition, continuous advances in technology means emerging threats, such as cyberwar and cyber attacks, the use of drones, artificial intelligence and robotic systems, are all capable of penetrating North American air and maritime warning and surveillance systems.<sup>363</sup> The net result is that Canada and the United States will have to rethink defence and security cooperation as the new threat environment is undergoing a deepening and widening process. Threats emanating from the cyber domain will require greater engagement and cooperation between institutions and agencies with mandates and practices traditionally defined in terms of foreign or domestic threats.<sup>364</sup> The private sector, research and development centres, universities, civil society actors and various media outlets (old and new) will also need to be engaged as public perception is key to security and defence efforts, to disseminate information and create public awareness.

NORAD, as a binational solution with experience as a decentralized command with a control function in the air domain, is well suited to take on duties in the cyber domain especially with its linkage to USNORTHCOM and CJOC, that have the national perspectives. However, the road to a binational solution in the cyber domain for NORAD or a NORAD-like structure is laced with political, bureaucratic and operational hurdles but even these pales compared to the

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<sup>363</sup> Ibid, 118.

<sup>364</sup> Ibid, 118.

fact that the cyber domain is currently considered premature resulting in a lack of interest for more integrated efforts by both states.

### **Conclusion**

After the second world war, Canada and the United States recognized a need for strategic air defence cooperation between the RCAF and the USAF. The Cold War brought about a situation where Canada and the United States required a concrete concerted effort for the purpose of deterring, detecting, and responding to air breathing threats of mutual concern from the Soviet Union which led to the creation of NORAD. Post-9/11 there was a growing recognition that maritime threats to the continent were quickly becoming a reality, that the asymmetric nature of these threats posed a complicated functional technical problem, and that such threats would have the capacity to affect both Canada and the United States. NORAD, with experience alerting, warning and presenting a North American COP was assigned a similar role in the maritime domain to analyze this COP in a binational manner, and provide binational maritime warning (but really mainly advisories) to further ensure North American maritime security.

NORAD's maritime warning mission is therefore a functional response resulting from the 9/11 terrorist attack on the United States in which Canada and the United States recognized the need for an integrated warning system and a common operating picture of North America's maritime approaches. Mutual concerns about security, the effect on both economies, trade and sovereignty elicited a response, albeit a slow adoption of the maritime warning mandate. Only a warning mission was assigned to NORAD leaving maritime surveillance and control in the hands of the national commands because it simultaneously addressed American concerns about a more robust and comprehensive and fully integrated continental security and defence architecture while also responding to Canadian sensibilities about sovereignty by limiting US military

officials in NORAD to issuing warnings about possible threats from the North American approaches within the Canadian domain and tasking the various Canadian maritime actors with the operational control powers to detect and respond to such threats. Adopting maritime warning meant that Canada demonstrated its continued commitment to North American defence without raising sovereignty issues and the United States achieved another level of protection without raising the ire of its navy and other maritime communities.

While functionalism is useful to the extent that it captures that technical solution impetus for the adoption of a maritime warning by Canada and the United States, it is insufficient as a stand-alone theory to explain the political, bureaucratic, and operational drivers that equally played a role in the final choice by the national legislatures of Canada and the United States. As this thesis has shown, NORAD, as a binational institution, is unique and affords both countries an effective means of handling mutual security and defence concerns. However, the binational character of NORAD and its history masks the unique Canada-US relationship based on US exigencies of continental defence often pitched by Canadian military professionals in very specific ways to civilian decision makers. As the military have direct access to military forums (like the MCC) where the technical solutions are ultimately drafted, this limits Canadian political input or monitoring in an important part of the policy making process.

It is not that Canada is merely a disempowered state making choices by default rather than deliberately, as often depicted by sovereigntists. Instead, Canadian acceptance of maritime warning is a deliberate decision about how to cooperate with a powerful neighbour and in so doing, protect its own sovereignty by making sure that it has a “seat at the table”. It is in this regard that functionalist explanations are useful. However, functionalist explanations do not capture certain key attributes that characterize Canada-US defence binational relationship in

NORAD which are key to providing a more robust understanding of the addition of maritime warning to the NORAD mission suite. For example, members of the United States legislature are empowered and active with Members of the Armed Services Committees in both the House of Representatives and the Senate having access to classified information, an effective oversight function that can come with consequences and perhaps, more importantly, can recommend line item changes in the defence budget, rewarding and punishing specific programs and branches.<sup>365</sup> In Canada, Parliament is not just less involved but are substantially less empowered to provide an adequate oversight function over the military given a very small Library of Parliament staff to prepare members of Parliament properly to ask the right questions and no equivalent to the US Congressional Research Services. The members of the defence committees in Parliament rarely possess security clearances, so they can only get access to classified materials via exceptional procedures.<sup>366</sup> Members of Parliament have little access to classified information and military officers are not allowed to talk to them about the advice they give to the executive – the Prime Minister and the Minister of National Defence. However, Canadian parliamentarians argue that the biggest challenge is not information but agenda control especially when there is a majority government.<sup>367</sup> When there is a majority government, parliamentary secretaries and chairs of committees often control the agenda to ensure the committee does not investigate anything that might trouble the government. Other than votes of confidence and bothersome questions during question period, Members of Parliament have few modes of trying to exert influence on military

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<sup>365</sup> Stephen Saideman, “Canadian Civil-Military Relations in Comparative Perspective: It Could Be Worse?” quoted in Thomas Juneau, Philippe Lagassé, and Srdjan Vucetic, *Canadian Defence Policy in Theory and Practice* (Cham: Springer International Publishing, 2020).

<sup>366</sup> Philippe Lagassé, “Parliament and the War Prerogative in the United Kingdom and Canada: Explaining Variations in Institutional Change and Legislative Control,” *Parliamentary Affairs* 70, no. 2 (2017): 280–300.

<sup>367</sup> The Canadian Senate tends to have greater control over the agenda than the House of Commons. See full details in Stephen Saideman, *Canadian Civil-Military Relations in Comparative Perspective: It Could Be Worse?* quoted in Thomas Juneau, Philippe Lagassé, and Srdjan Vucetic, *Canadian Defence Policy in Theory and Practice* (Cham: Springer International Publishing, 2020).

matters.<sup>368</sup> The net result is that while the US military cares a great deal about Congress and is most careful to respond to the queries of legislators as they play a significant role in shaping US foreign and defence policy, Canadian politicians rely on the advice of military officials who control the information flow from military forums where they collaborate with US officials. Both the creation of NORAD itself and the addition of maritime warning are therefore consistent with this pattern that impacts Canada-US security and defence cooperation where political decision makers provide the symbolism and the military provides the substance.

Thus, it might be useful to consider other theories like constructivism, rationalist theories and the process by which Canadian foreign policy is made as they might add a layer to a better understanding not just about maritime warning but also the unique binational relationship that binds Canada and the United States under NORAD and the impact it has in driving future continental integration efforts by both states.

In addition, there is little value politically for both governments to concentrate on continental defence efforts like maritime warning, however the reasons for doing so differ. American strategic culture is rooted in securing the US homeland by engaging threats far as possible from the homeland.<sup>369</sup> In the case of Canada, apart from the many worries around sovereignty, a lack of public interest on most military matters, more disengaged parliamentarians, and the relative lack of non-academic experts and lack of research support to parliamentarians<sup>370</sup> contribute to the lack of political will to affect meaningful change. Canada's relatively secure position in the world is partly to blame for this as its security is not at stake

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<sup>368</sup> Ibid.

<sup>369</sup> Thomas Juneau, Philippe Lagassé, and Srdjan Vucetic, *Canadian Defence Policy in Theory and Practice* (Cham: Springer International Publishing, 2020).

<sup>370</sup> Stephen Saideman, *Canadian Civil-Military Relations in Comparative Perspective: It Could Be Worse?* quoted in Thomas Juneau, Philippe Lagassé, and Srdjan Vucetic, *Canadian Defence Policy in Theory and Practice* (Cham: Springer International Publishing, 2020).

most of the time. Still, as the biggest discretionary part of the budget and as mission failures may not only get Canadians killed but also upend governments, Canada's politicians and the academic community should be paying more attention to this.

NORAD has proven to be flexible and resilient in its mission delivery, evolving from a Cold War defensive juggernaut to delivering contemporary domestic air security and maritime warning in a complex, selective and new threat environment. Functionalist explanations will likely play a significant role in whether NORAD acquires more roles in the maritime defence, the land domain and cyber space as the history of NORAD and the post 9/11 threat environment indicate the evolution of NORAD as a binational institution is adaptable to changes. However, the evolution into these domains will not depend only on functional drivers but also the political will of decision makers, an engaged citizenry, an effective bureaucracy and the technological advancements for operational control by NORAD to ensure the security and defence of North America.<sup>371</sup>

The adoption of only maritime warning from the BPG's findings indicate that Canadian ministers, civilian officials and military officers, as well as academics need to account for American strategic culture in Canada's dealings with the United States government. American strategic culture has been misinterpreted on the Canadian side by government officials seeking to assuage US demands as an effective and loyal ally by collaborating in overseas missions with the United States (like the Afghanistan mission)<sup>372</sup> when the United States would prefer Canada to contribute to its perimeter defence as part of its layered security plan. Understanding that the

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<sup>371</sup> The PJBD EvoNad study indicates that more attention is being paid to the modernization and replacement of the aging North Warning System than to maritime control though the cost is considered high for both Canada and the United States. For details, see Andrea Charron, James Fergusson, Joseph Jockel, Chris Sands and Joel Sokolsky. *NORAD: Beyond Modernization*. (University of Manitoba: Centre for Defence and Security Studies, 2019). [https://umanitoba.ca/centres/cdss/media/NORAD\\_beyond\\_modernization\\_2019.pdf](https://umanitoba.ca/centres/cdss/media/NORAD_beyond_modernization_2019.pdf)

<sup>372</sup> Matthew Trudgen, "The Key to the Canada-United States Relationship: Homeland and Continental Defence in American Strategic Culture," *Canadian Foreign Policy Journal* 22, no. 2 (2016): 184–198.

United States prefers to deal with its security problems overseas rather than by defending North America means that the Canadian government has much more flexibility in how it determines its foreign and defence policies than it would first appear. Furthermore, Canadian preoccupation with sovereignty concerns distracts from the efforts that could be channelled to understanding US defence priorities that are largely on the offensive.<sup>373</sup> Rather than being reactive, Canadian foreign and defence policies could be more proactive by envisaging what the Americans might want and taking steps to address those concerns as opposed to what Canadians fear that the Americans will demand.<sup>374</sup> Such a new perspective will better serve Canadian interests by effectively placing Canada not just at the table but also giving ample time to formulate policies that can strengthen the defence relationship with Americans and defending against help from its very powerful neighbour and ally. Canada's interest is better served by collaborating with the American counterparts as its national interests will not be ignored.

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<sup>373</sup> Trudgen, *The Key to the Canada-United States Relationship*.

<sup>374</sup> For academics on Canadian foreign policy and strategic culture see Robert Bothwell, *Alliance and Illusion: Canada and the World, 1945-1984* (Vancouver: UBC Press, 2007); Kim Nossal, "Defending the 'Realm': Canadian Strategic Culture Revisited," *International Journal* 59, no. 3 (2004): 503–520.

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