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## To the North! Canada's Arctic Strategy Examined

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**JCSP 40**

### ***Exercise Solo Flight***

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**To the North! Canada's Arctic Strategy Examined**

By Maj J.A. DeBruin

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*Mon pays, ce n'est pas un pays, c'est l'hiver.*

-Gilles Vigneault

## **Introduction.**

The Arctic region is vital to Canada's global and national identity, strategic considerations, national sovereignty, environmental health, and future economy. The Canadian North is intrinsically tied to all aspects of Canada's physical, cultural, environmental, economic and social identity, extending from Canada's love of hockey to a symbol of its national identity in the Canadian Rangers, to economic opportunities such as recently developed northern diamond mines and the potential resource treasure trove on and around the Arctic Shelf and Arctic Archipelago.

In stating that the Arctic is of vital interest to Canada<sup>1</sup>, the federal government has clearly articulated their foreign and national policy goals for the region. Canada's strategic interests in the North are oriented on sovereignty, economics and the environment and thus Canada must articulate a clear declaration of intent regarding its sovereign will and commitment to the Arctic. This focus has fundamental national and international implications, ranging from the recognition and enforcement of accepted national boundaries to an overt pledge to our closest ally and trading partner, the United States (US), that Canada is committed not only to its own sovereignty but also to the defence and surveillance of continental North America, as a valuable partner in the

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<sup>1</sup> Canada, Department of Foreign Affairs, Trade and Development Canada, *Statement on Canada's Arctic Foreign Policy* (Ottawa, ON: Government of Canada,[2010 (Updated 2013)]). This focus on the North is also outlined in the Department of National Defence's 'Canada First Defence Strategy' as well as 'Canada's Northern Strategy' on the official Government of Canada website, 'www.northernstrategy.gc.ca'.

strategic north. In addition to sovereignty, Canada has environmental and economic interests in the High North. The ecosystem of the Arctic is diverse and fragile, as well as being politically, economically and culturally important in both national and international contexts. As the Polar Ice Cap recedes, national and international interests will shift to exploitation and extraction of potentially massive deposits of raw resources in and around the Arctic Shelf and the Arctic Archipelago. Canada's statement of national interest in this vital region must therefore be deliberate and unambiguous, enforcing environmental law and jurisdictional interests in Canada's Economic Exclusion Zone (EEZ) in the Arctic, in cooperation with the other nations of the Arctic Council.

However, while the Government of Canada has publicly declared that Canada has imperative interests of sovereignty, economics and the environment in the Arctic, there remains disagreement regarding the desired end-state, the policies that will support that desired end-state and the capabilities committed to realizing these policies. Utilizing the Ends-Ways-Means strategy model as formulated by Arthur F. Lykke, Jr., this paper will critically examine the foundations, principles, and logical results that underpin Canada's Arctic Strategy. Further, this paper will examine and discuss the strengths and weaknesses of Canada's Arctic Policy as articulated in each component of the strategy model of 'Ends', 'Ways' and 'Means'. Finally, this paper will posit that while there are some challenges associated with Canada's Arctic strategy, they are neither illogical nor fatal as they relate to the overall validity of the strategy. This paper will conclude with some observations and suggestions as to potential resolutions of these inconsistencies in order to better align the three constituent components of Canada's Northern Policy,

thereby ensuring a more holistic strategy that Canada can afford and implement, with national and international support. Due to the potential breadth and depth of the subject, this paper will necessarily restrict itself to the specific areas of the government's desired end-state (the 'Ends'), the international diplomacy, bi-lateral and multi-lateral efforts and resultant agreements (the 'Ways') that support the desired end-state, and the military elements of national power (the 'Means').

### **Strategy Analysis – Lykke's Ends-Ways-Means Construct.**

Before critically examining Canada's northern strategy and policy, it is necessary to define how this examination is to be framed, and more specifically, the analytical structure within which the analysis will be conducted. For the purposes of this paper, national grand strategy can be best defined as 'the art and science of developing and using the political, economic and psychological powers of a nation, together with its armed forces, during peace and war, to secure national objectives.'<sup>2</sup> More specifically for the 'Ends-Ways-Means' strategy model to be employed in this paper, strategy is viewed as all-inclusive in nature with the inherent and express purpose of directing national elements of power to control situations and / or regions in order to realize government objectives.<sup>3</sup> In fact, "[i]t is comprehensive, it provides direction, its purpose is control,

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<sup>2</sup> Arthur F. Lykke Jr., "Toward an Understanding of Military Strategy," in *US Army War College Guide to Strategy*, ed. Cerami, Joseph R., and James F. Holcomb, Jr. (Carlisle Barracks, PA: US Army War College, 2001), 179.

<sup>3</sup> Richard H. Yarger, "Towards a Theory of Strategy: Art Lykke and the Army War College Strategy Model," in *The US Army War College Guide to National Security Issues, Volume I: Theory of War and Strategy*, ed. J. Boone Bartholomees, Vol. Vol. I (Carlisle Barracks, PA: Strategic Studies Institute, 2010), 1.

and it is fundamentally concerned with the application of power.”<sup>4</sup> As the purview of the senior political leadership of the state, it deals with the commitment of the elements of national power in the attainment of national political objectives and goals; this paper is not concerned with military strategy per se, but rather how the military is employed to embody the ‘Means’ within this specific case study.

Used as the US Army War College Strategy Model for almost two decades, the framework for this critical analysis of Canada’s northern strategy is from Colonel Arthur F. Lykke, Jr. It is premised on three interdependent components, meaning that the three constituent components remain not only independent of each other in terms of the scope within which each acts, but also dependent on each other, in that the model can only function as a sum of the three components, working together to provide a holistic view of a particular strategy; namely ‘Ends-Ways-Means’.

For the purposes of this paper, the key constituent element of the model is that of ‘Ends’. Lykke defines the ‘Ends’ component as the objective or desired end-state to be realized; it is the national goal to be achieved, to which government policy is oriented, and which the elements of national power are created, oriented on and committed to realizing.<sup>5</sup> This is a fundamentally political process and the purview of the political leadership of the nation.

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<sup>4</sup> Richard H. Yarger, "Towards a Theory of Strategy: Art Lykke and the Army War College Strategy Model," in *The US Army War College Guide to National Security Issues, Volume I: Theory of War and Strategy*, ed. J. Boone Bartholomees, Vol. Vol. I (Carlisle Barracks, PA: Strategic Studies Institute, 2010), 1.

<sup>5</sup> Lykke Jr., *Toward an Understanding of Military Strategy*, ed. Cerami, Joseph R., and James F. Holcomb, Jr. (Carlisle Barracks, PA: US Army War College, 2001), 179-180; also expanded upon in both Colonel

The next component of Lykke's model is that of 'Ways', defined in general terms as a course of action, but more precisely in this context as how the desired goal or end-state is to be achieved, articulated in governmental terms via official government policy (i.e., for this paper, Canada's Northern Strategy), often via a White Paper, Foreign Policy Statement or governmental announcement.<sup>6</sup> So, "political purpose is stated in policy. Policy is the expression of the desired end state sought by the government. In its finest form it is clear articulation of guidance for the employment of the instruments of power towards the attainment of"<sup>7</sup> a government's intended end-state.

The final component of Lykke's model is that of 'Means', which can be best defined as the elements of national power through which 'Ends' can be achieved. 'Means' can range from concrete elements of national power such as diplomacy, economics, security and, at the other end of the spectrum, military power, and can also include "intangible resources [such as] will, courage, or intellect."<sup>8</sup>

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Dale C. Eikmeier, "A Logical Method of Centre-of-Gravity Analysis," *Military Review* (September-October 2007, 2007)62-63; Yarger, *Towards a Theory of Strategy: Art Lykke and the Army War College Strategy Model*, ed. J. Boone Bartholomees, Vol. Vol. I (Carlisle Barracks, PA: Strategic Studies Institute, 2010), 1-2, 5.

<sup>6</sup> This section summarizes and synthesizes all three core references on the Lykke model, as each author comes at this specific component of the subject of 'Ways' or policy somewhat differently. Lykke Jr., *Toward an Understanding of Military Strategy*, ed. Cerami, Joseph R., and James F. Holcomb, Jr. (Carlisle Barracks, PA: US Army War College, 2001), 179-180.; Eikmeier, *A Logical Method of Centre-of-Gravity Analysis*, 2007), 62-63; and Yarger, *Towards a Theory of Strategy: Art Lykke and the Army War College Strategy Model*, ed. J. Boone Bartholomees, Vol. Vol. I (Carlisle Barracks, PA: Strategic Studies Institute, 2010), 1, 5.

<sup>7</sup> Richard H. Yarger, "Towards a Theory of Strategy: Art Lykke and the Army War College Strategy Model," in *The US Army War College Guide to National Security Issues, Volume I: Theory of War and Strategy*, ed. J. Boone Bartholomees, Vol. Vol. I (Carlisle Barracks, PA: Strategic Studies Institute, 2010), 2.

<sup>8</sup> *Ibid*, 5.

Lykke's strategy model is essentially a logic-based mathematical equation, expressed as "Strategy = Ends + Ways + Means".<sup>9</sup> For this equation (and Lykke's model) to work, "strategy is a coherent expression of a process that identifies the ends, ways, and means designed to achieve a certain [desired end state]."<sup>10</sup> Additionally, the model's three constituent components must be independently and inter-dependently logical and objectively consistent, while also providing a comprehensive output that meets the stated end state. If there is an imbalance between the constituent components, or the output (strategy) of the equation is illogical or inconsistent with the components that precede it, then the model itself is rendered logically and ineffective.<sup>11</sup>

### **The Arctic – Why it is Important to Canada.**

When considering the Arctic in the context of national and international policy, it is logical to ask first why Canada places such national and strategic importance on it. Canada's North comprises approximately 40% of Canada's overall landmass.<sup>12</sup> Canada's northern oceans also represent the largest coastline in the world, a vital strategic consideration. Canada's North and the Northwest Passage potentially allow a much shorter transit route from Asia to the eastern seaboard of the United States and Europe

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<sup>9</sup> Lykke Jr., *Toward an Understanding of Military Strategy*, ed. Cerami, Joseph R., and James F. Holcomb, Jr. (Carlisle Barracks, PA: US Army War College, 2001), 179.

<sup>10</sup> Eikmeier, *A Logical Method of Centre-of-Gravity Analysis*, 2007), 63.

<sup>11</sup> Yarger, *Towards a Theory of Strategy: Art Lykke and the Army War College Strategy Model*, ed. J. Boone Bartholomees, Vol. Vol. I (Carlisle Barracks, PA: Strategic Studies Institute, 2010), 3, 6. Yarger's entire premise in defining and refining Lykke's model is to emphasize the necessary deductive and didactic inter-connections of the three constituent parts of Lykke's strategy model as necessarily interdependent. Any imbalance or inconsistency in any one of the three components will necessarily render useless the output (the 'answer' to the equation = the strategy).

<sup>12</sup> Wikipedia, "Northern Canada," Wikipedia, [http://en.wikipedia.org/wiki/Northern\\_Canada](http://en.wikipedia.org/wiki/Northern_Canada) (accessed 04/30, 2014).



compared to the presently used shipping route of the Suez Canal.<sup>13</sup> An additional factor is the population of Canada's North, approximately 0.3% of Canada's overall population and with a higher proportion of youth than Canada's average.<sup>14</sup> These factors, however, are but one component of what makes Canada's North an area of vital strategic interest.

Estimates of the economic potential in Canada's North remain somewhat speculative due to the cost of accurate geological surveys, and the high costs of environmentally prudent exploitation, especially in , on or near the Arctic Shelf and the Arctic Archipelago. The burgeoning industry of polar diamonds from the Canadian North has become an international economic success story, with Canada being the third largest producer of diamonds in the world today. In terms of hydrocarbons, a conservative estimate of the reserves in Canada's North and high Arctic puts it at approximately twelve billion barrels of crude oil and up to 50% of the world's undiscovered hydrocarbons.<sup>15</sup> These significant economic potentials do not include the other as-of-yet undetermined minerals and materials expected to be found in the high north as a result of

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<sup>13</sup> Morris Maduro, "Northern Shortcut: The Temptation of One Warming Line through the Arctic," *Canadian Geographic* nd00, no. November/December 2000 (2000), 30 April 2014. <http://www.canadiangeographic.ca/magazine/nd00/maduro.asp>; Michael Byers, "Build an Arctic Gateway to the World," *The Globe and Mail*, sec. Globe Debate, 3 April 2009, 2009..

<sup>14</sup> Statistics Canada, "Canada 2011 Census," <http://www12.statcan.gc.ca/census-recensement/index-eng.cfm?HPA> (accessed 04/30, 2014).

<sup>15</sup> This data was extrapolated from a number of resources, including: Arctic Circle Panel, "The Myth of Arctic Sovereignty: Do we really Need to Defend the North?" *The Globe and Mail*, sec. The North, 22 January 2014, 2014 , and Library of Parliament, "Canadian Arctic Sovereignty," <http://www.parl.gc.ca/Content/LOP/researchpublications/prb0561-e.htm> (accessed 04/30, 2014). and Mining Industry Human Resources Council, "Mining Facts and Figures," <http://www.acareerinmining.ca/en/industry/factsfigures.asp> (accessed 04/30, 2014). Also Griffiths, Franklyn, Rob Huebert, P. Whitney Lackenbauer, Suzanne Lalonde, and The Honourable Paul Okalik, "Canada's Arctic Interests and Responsibilities" (Toronto, ON, Canadian International Council, 20 - 21 June 2008, 2008, Vol. 65, No. 4.), 18. The U.S. Geological Survey suggests 13% of the world's undiscovered and technically recoverable oil and 30% of the world's undiscovered and technically recoverable natural gas.

geological surveying. However, the influence of the delicate Arctic environment, almost a symbiotic relationship with economic opportunities for the exploitation of raw resources, is a major public and private concern in Canada and internationally. The government of Canada uses both economic and environmental factors as a motivation and motivator for going ‘To the North’.<sup>16</sup>

In addition to the geographical, demographic, and economic influences of the North, a further key factor influences Canada’s perception of itself as a northern nation. In its simplest terms, Canada is a heavily urbanized, southern-oriented nation, with the overwhelming majority of its populace – almost 81%, according to the 2011 Census – close to the southern border with the USA.<sup>17</sup> Nevertheless, Canadians retain an emotional and romantic self-perception as a northern or arctic nation. As the Government’s own ‘Statement on Canada’s Arctic Foreign Policy’ states unequivocally, “The Arctic is fundamental to Canada’s national identity .... [and] is embedded in Canadian history and culture, and in the Canadian soul.”<sup>18</sup> This sense of Canada as an arctic nation, fundamentally different from its southern neighbour, is deep in the Canadian psyche, as a belief that “the North is a lynchpin of our country’s identity. It is both geography and mythology, a place that we continue to inscribe with our hopes and ambitions and our

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<sup>16</sup> Statements concerning the environment as a primary motivator for the government of Canada’s active involvement in the North, as a guardian of economic exploitation as well as a northern regulator and protector, are liberally sprinkled throughout the three official Government northern strategy documents used as references in this paper. ‘To The North’ is also the motto of CFB Edmonton.

<sup>17</sup> Canada, *Canada 2011 Census*, <http://www12.statcan.gc.ca/census-recensement/index-eng.cfm?HPA> ed., Vol. 2014, 2014).

<sup>18</sup> Canada, Department of Foreign Affairs, Trade and Development Canada, *Statement on Canada's Arctic Foreign Policy* (Ottawa, ON: Government of Canada, 2010 (Updated 2013)), 3.

desire to articulate who we are.”<sup>19</sup> It is this third facet, the emotional, supported by empirical factors such as geography, demographics, the environment, and economics, which has been important, at least politically, in pushing Canada northward. As Prime Minister Harper recently stated in an interview on the subject of Canada’s North, “a robust and positive vision of Canadian nationalism [includes] . . . a renewed emphasis on Canada’s fundamental northern nature.”<sup>20</sup> Indeed, it is this component which potentially, has the greatest influence in answering the primary question of why the North is so important to Canada’s sense of self and identity.

### **The Ends.**

Having established why the Arctic is so vital to Canada’s future in cultural, social, economic, environmental, and strategic terms, this paper can now shift to an examination of the ‘Ends’ component of Canada’s Arctic strategy. This aspect of Lykke’s model encompasses the national strategic end-state that Canada wants to achieve. The end-state of Canada’s strategy concerning the Arctic, as expressed in the 2010 ‘Statement on Canada’s Arctic Foreign Policy’ is that “Our [Canada’s] vision for the Arctic is a stable, rules-based region with clearly defined boundaries, dynamic economic growth and trade, vibrant northern communities and healthy and productive ecosystems.”<sup>21</sup> This goal is relatively coherent, logical, and most importantly, attainable, considering Canada’s context of geography, geopolitical position, economic requirements, and capacity to enforce its claims of sovereignty, including the element of environmental protection.

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<sup>19</sup> John Stackhouse, "How Canada's North has Become a Test of Nation-Building for Us All," *The Globe and Mail*, sec. Letter from the Editor, 30 January 2014.

<sup>20</sup> Steven Chase, "Q&A with Harper: No Previous Government has 'Delivered More in the North'," *The Globe and Mail*, sec. The North, 18 January 2014, 2014b.

<sup>21</sup> Canada, Department of Foreign Affairs, Trade and Development Canada, 2010 (Updated 2013). *Statement on Canada's Arctic Foreign Policy*. Ottawa, ON: Government of Canada, 3.

In articulating its end-state in such a coherent manner, the Canadian government has made clear that the Arctic Region, both nationally and internationally, needs to be founded on a rights-based approach to the identification and resolution of vital regional issues, ranging from environmental management and protection, to responsible and sustainable economic exploitation, all within the context of internationally agreed-upon and recognized borders.<sup>22</sup> Inherent to this approach is the subject of the indigenous peoples of the North, as the human capital upon which Canada's Northern Strategy can and should be built. In fact, Canada's Northern Strategy clearly articulates that the entire premise that "Canada's Arctic sovereignty is longstanding, well-established and based on historic title, founded in part on the presence of Inuit and other Aboriginal peoples since time immemorial."<sup>23</sup> It is this combination of historical precedent and the intent that the Arctic be a stable and rules-based region that is central to Canada's way forward in the North. This includes demarcating Canada's continental shelf as defined under the *United Nations Convention of the Law of the Sea* (UNCLOS). "This process, while lengthy, is not adversarial and is not a race. Rather, it is a collaborative process based on a shared commitment to international law. Canada is working with Denmark, Russia and the United States to undertake this scientific work."<sup>24</sup> The inclusive, consultative and co-

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<sup>22</sup> Canada, Department of Indian Affairs and Northern Development, *Canada's Northern Strategy: Our North, our Heritage, our Future* (Ottawa, ON, Canada: Department of Indian Affairs and Northern Development, [2009]). The Canadian government's end-state as cited in the body of this paper, at footnote 21, is premised on a holistic approach to nation-building in the High North, leveraged, on and for the populace of the north, both indigenous and people who have moved to the north, 'from the south.'

<sup>23</sup> *Ibid*, 9.

<sup>24</sup> *Ibid*, 12. Also, from the following reference regarding the foundation of Canada's claims of sovereignty in the Arctic being based on the enduring nature of the Inuit living in the region. While not a component of this paper's analysis of Canada's Northern Strategy due to size limitations, there is a strong case to be made for Canada's claims of sovereignty based on the enduring nature of the occupation of the High North by

operative nature of the Canadian government's desired end-state for the Arctic region highlights its intrinsically logical and non-confrontational underpinning, contributing to its status as a sound, realistic and attainable end-state, meeting the requirements for this component of Lykke's strategy model.

### **The 'Ways'.**

Canada's 'Ends' for the Arctic Region are achieved via government policy and international bi-lateral and multi-lateral agreements. Canada has been largely successful in furthering its desired Arctic end-state of a rules-based and stable Arctic region, using collaboration and consultation to establish coherent and enduring 'Ways' for the realization of that end-state. In specific terms, Canada has made substantial headway in founding the Arctic Council via the 1996 *Ottawa Declaration*, with subsequent work to make it an inclusive multi-lateral body including both Arctic nations (the Arctic Eight of Canada, the USA, Russia, Denmark, Norway, Finland, Iceland, and Sweden), and near-Arctic countries (China, Japan, etc.). This effort has also been successful in ensuring the official recognition and acceptance of a large number of government and non-government organizations (cultural, economic, etc.), as well as officially recognized observer status for key indigenous peoples and groups. It is because of its inclusive nature and holistic approach to Arctic matters that the Arctic Council has proven to be such a useful medium through which to address common Arctic issues, be they

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Canada's Inuit people. Griffiths, Franklyn, Rob Huebert, P. Whitney Lackenbauer, Suzanne Lalonde, and The Honourable Paul Okalik, *Canada's Arctic Interests and Responsibilities*, Toronto, ON ed. Canadian International Council, 2008, Vol. 65, No. 4.), 3-7.

economic, social, cultural, geopolitical or sovereign in nature.<sup>25</sup> While not a binding body, and sometimes vulnerable to geopolitical frictions of the day,<sup>26</sup> the Arctic Council is a forum for Arctic Nations to discuss key issues impacting the Arctic and their respective countries. It also provides a basis for the resolution of potential frictions over responsibilities, environmental controls, sovereignty, and cultural and social issues in the High North, and thus remains a key component of Canada's diplomatic efforts in the Arctic.

Bi-laterally, Canada has effectively advanced its desired end-state, despite seemingly irreconcilable differences and friction points, via a body of 'Ways' expressed in policies and agreements. For example, in order to avoid setting a precedent prejudicial to the unfettered passage of American naval assets through inland waterways around the world, the USA refuses to publicly acknowledge or recognize Canada's sovereignty claims over key internal northern Arctic waterways, including the Northwest Passage. This reluctance is based on a much larger issue, that of "a cornerstone of American foreign policy to insist on the concept of freedom of the seas in order to guarantee

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<sup>25</sup> The Arctic Council, "Arctic Council - Home, Environment and People, about Us," <http://www.arctic-council.org/index.php/en/> (accessed 5/01, 2104). and Canada, Department of Foreign Affairs, Trade and Development Canada, "The Arctic Council," Government of Canada, <http://www.international.gc.ca/arctic-arctique/council-conseil.aspx?lang=eng> (accessed 5/01, 2014)..

<sup>26</sup> Kim Mackrael, "Ottawa Upbraids Russian Envoy, Skips Arctic Council Meeting Over Ukraine," *The Globe and Mail*, sec. Politics, 15 April 2014, 2014. The Federal Government of Canada cancelled its attendance at a set of Arctic Council meetings in Moscow on 15 April 2014 in response to the crisis in the Ukraine. Unfortunately, while this may have been a good public relations opportunity in the short term as an example of getting tough with Russia, it was potentially short-sighted and does not align with Canada's so-far-effective collaborative approach to resolving very real Arctic issues and more specifically in this case, the work necessary to address deteriorating climatic and environmental conditions in the Arctic brought on by so-called black carbon. Also used as background reference for this topic was, Michael Byers, "Squeeze Putin, Yes, but the Arctic is Not Ukraine," *The Globe and Mail*, sec. Globe Debate, 2 May 2014, 2014.

mobility of U.S. naval assets around the world.”<sup>27</sup> However, while the de jure conflict is unlikely to be resolved, the issue is not major, despite public political commentary to the contrary. Canada and the USA have vital and intertwined strategic interests, brought into focus as a result of the attacks of 11 September 2001. The attacks “have altered the international politics of the Northwest Passage. Both Canada and the US now share a greatly increased interest in security cooperation against terrorist and related non-traditional threats.”<sup>28</sup> In fact, these shared interests in rules-based, stable and cohesive control of Canada’s Arctic go much further now, as

in the new circumstances no state could expect unilaterally to penetrate the security space of North America by contriving the transit of a ship or ships in a way that put Canada’s sovereignty claim on the line. An attack on the Canadian interest now necessarily becomes an attack on the American interest .... [and indeed] both sides were [and are] in a better position than ever to lay their Arctic waters differences to rest.<sup>29</sup>

First signed in 1988 and utilized as recently as 2008, the *Arctic Co-operation Agreement* is a bi-lateral agreement between Canada and the USA that underpins Arctic cooperation based on mutual interests of economics, geopolitics and sovereignty, and it remains a foundation of shared values related to the north, and a framework within which to settle any potential disputes.<sup>30</sup> Bi-lateral efforts to resolve outstanding and persistent intra-country Arctic issues have also been successfully advanced via informal and formal

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<sup>27</sup> Griffiths, Franklyn, Rob Huebert, P. Whitney Lackenbauer, Suzanne Lalonde, and The Honourable Paul Okalik, *Canada's Arctic Interests and Responsibilities*, Toronto, ON ed. Canadian International Council, 2008, Vol. 65, No. 4.), 11.

<sup>28</sup> Franklyn Griffiths, "Pathetic Fallacy: The Canada's Arctic Sovereignty is on Thinning Ice," *Calgary Papers in Military and Strategic Studies* Occasional Paper No. 4, 2011 (2011), 409.

<sup>29</sup> *Ibid.*

<sup>30</sup> *Ibid.*, 410.

efforts and discussions at all levels of the two governments, in both military<sup>31</sup> and diplomatic spheres. This has led to a seemingly fundamental shift in the position of the USA in the last 10 years regarding the subject of Arctic sovereignty. In late 2004, during a trip to Iqaluit, the then-US Ambassador to Canada, Paul Cellucci, posited “that the Northwest Passage might better be left to Canada .... Cellucci reasoned that at a time when the US saw everything through the prism of terrorism, it could be safer with the Passage under Canadian control.”<sup>32</sup> This is a singular point in recognizing Canada’s efforts to resolve the subject of the Northwest Passage with its most important ally and trading partner, both bi-laterally and on a broader geopolitical level. The support of Canada’s claims regarding the Northwest Passage by the USA, be it tacitly or overtly, will go a long way in the geopolitical realm to resolving these claims in Canada’s favour, although the final outcome of these efforts remains unclear at present.

Canada’s efforts in the Arctic region are also connected with its international legal and diplomatic efforts via the United Nations and UNCLOS. Canada’s legislative efforts to protect the environment of the High Arctic form a final key component of Canada’s strategy to foster a stable and rules-based Arctic region via coordinated efforts with international diplomatic and commercial organizations. The *Arctic Waters Pollution Prevention Act* (AWPPA) was federal legislation adopted by Canada in 1970, and was later accepted and sanctioned in article 234 of UNCLOS, allowing Canada non-

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<sup>31</sup> Griffiths, Franklyn, Rob Huebert, P. Whitney Lackenbauer, Suzanne Lalonde, and The Honourable Paul Okalik, *Canada's Arctic Interests and Responsibilities*, Toronto, ON ed. Canadian International Council, 2008, Vol. 65, No. 4.), 11. In 2008, while conducting meetings on the Arctic at the Pentagon, there was seemingly some support and sympathy for Canada’s position on the Arctic.

<sup>32</sup> Griffiths, *Pathetic Fallacy: The Canada's Arctic Sovereignty is on Thinning Ice*, Vol. Occasional Paper No. 4, 2011, 2011), 418.



discriminatory regulation of the northern waterways over which it lays claim for environmental protection.<sup>33</sup> In fact, Canada has also been successful via the maritime shipping industry, represented by the *International Maritime Organization* (IMO). “The AWPPA has been updated in the intervening decades with input from the [IMO]. Indeed, Canada spearheaded the efforts within the IMO that led to the adoption of the “*Arctic Shipping Guidelines*, which largely mirror the [AWPPA].”<sup>34</sup>

Canada’s diplomatic and legal effort largely centres on environmental protection of the Arctic, although there can also be a case made for it pertaining to Canada’s claims on Arctic territorial waters, with its major focus on Arctic Shelf and Arctic Archipelago seabed mineral rights. Canada’s government clearly frames its legal claims of sovereignty in these terms,

New opportunities and challenges are emerging across the Arctic and North, in part as a result of climate change and the search for new resources. The geopolitical significance of the region and the implications for Canada have never been greater. As global commerce charts a path to the region, Northern resources development will grow ever more critical to Northern economies, to the peoples of the North and to our country as a whole. The potential of the North is of growing interest to Canada, to other Arctic states and, increasingly, to others far from the region itself.

While the opportunities are great, there are also important social, economic and environmental challenges. Some of these have important international dimensions. Over time, increased access to the Arctic will bring more traffic and people to the region. While mostly positive, this access may also contribute to an increase in environmental threats, search and rescue incidents, civil emergencies and potential illegal activities. How the region as a whole

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<sup>33</sup> Griffiths, Franklyn, Rob Huebert, P. Whitney Lackenbauer, Suzanne Lalonde, and The Honourable Paul Okalik, *Canada's Arctic Interests and Responsibilities*, Toronto, ON ed. Canadian International Council, 2008, Vol. 65, No. 4.), 12.

<sup>34</sup> *Ibid*, 13.

evolves will have major implications for Canada and our role as an Arctic power.<sup>35</sup>

It is within this context of its desired end-state that the government of Canada has pushed its international legal and diplomatic claims for sovereign control and responsibility for the High Arctic, for reasons of both environmental protection and economic exploitation of off-shore hydrocarbon and mineral deposits residing in and on the Arctic Shelf and the Arctic Archipelago. Canada has formally submitted its claims to the United Nations Commission (end-2013) in an effort to have these international jurisdictional issues resolved and recognized. Additionally, “there are [currently] two international disputes, one over the ownership of tiny Hans Island between Canada and Greenland, and one between the U.S. and Canada over about 6,250 square nautical miles of seabed rights in the Beaufort Sea.”<sup>36</sup> However, international “legal experts say that the talk about sovereignty incorrectly leaves the impression that Canadian territory is at risk”<sup>37</sup>. Canada remains committed to resolving these international border disputes via either bi-lateral negotiations or the United Nations, further proof of its intent to continue to foster a rules-based and stable Arctic premised on mutual negotiation and codified agreements amongst and between the Arctic Eight nations.<sup>38</sup>

Canada’s support of the desired ‘Ends’ is well articulated via coherent governmental ‘Ways’ of national policies and international agreements. Efforts to foster a

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<sup>35</sup> Canada, Department of Foreign Affairs, Trade and Development Canada, *Statement on Canada's Arctic Foreign Policy* (Ottawa, ON: Government of Canada, 2010 (Updated 2013)), 3.

<sup>36</sup> Steven Chase, "Myth Versus Reality in Stephen Harper's Northern Strategy," *The Globe and Mail*, sec. The North, 20 January 2014, 2014.

<sup>37</sup> *Ibid.*

<sup>38</sup> Kim Mackrael, "Canada, Denmark Closer to Settling Border Dispute," *The Globe and Mail*, sec. National / International, 30 November 2012, 2012.

stable and rules-based Arctic region reflect an overarching and consistent strategy to effect a unified end-state for the Arctic in collaboration with Canada's neighbours. Mainly employing diplomatic efforts to achieve bi-lateral and multi-lateral agreements and policies regarding the Arctic, Canada has been largely successful in advancing its desired end-state for the Arctic while avoiding potentially escalating frictions in the region.

### **The Means.**

The final component of Lykke's strategy model, that of 'Means', is potentially the most problematic with respect to Canada's Northern Strategy.<sup>39</sup> Focused on the military instrument of national power as represented in the Canadian Armed Forces (CAF), several fundamental incongruities exist in Canada's Northern Strategy. Specifically, there are key dichotomies between the stated intents of 'Means' and the present status of those 'Means' necessary to work in synchronicity with diplomatic, legal and other efforts to attain the desired 'Ends'.

As early as the 2005-2006 election campaign, the present government clearly articulated both its desired end-state for Canada's North and the 'Means' they believe necessary to achieve that end-state, at least in terms of sovereignty.<sup>40</sup> After their 2006

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<sup>39</sup> This section of the analysis utilizing Lykke's model will be necessarily constrained to only the subject area of the Canadian Armed Forces as the 'means' to assist in attaining Canada's desired Arctic end-state due to considerations of space for this paper.

<sup>40</sup> Rob Huebert, *The Newly Emerging Arctic Security Environment* (Calgary, AB: Canadian Defence & Foreign Affairs Institute, [2010]), 6-7. This initially included the intent to build three armed icebreakers, re-vitalize Canada's Arctic military forces, Joint Supply Ships that could operate in first year (one metre thick) ice and replacement patrol aircraft for the Aurora fleet. These initial pre-election plans subsequently morphed into the Arctic Offshore Patrol Ships (AOPS) and one heavy Ice Breaker for the Coast Guard, no

election, the Conservative government of Stephen Harper outlined via the *Canada First Defence Strategy* (CFDS) of 2006 and *Canada's Northern Strategy* of 2009 their intent with regards to the Arctic as one largely of sovereignty and military presence, the defined 'Means' of the government's Arctic strategy. This effort to increase Canada's northern military capacity and capabilities included the government's commitment to an Army Training Centre in Resolute Bay, the expansion and modernization of the Canadian Rangers, the establishment of a naval deep-water port and re-fuelling facility at Nanisivik, a fleet of six to eight Arctic/Offshore Patrol Ships (AOPS) capable of operating in first-year (one metre thick) ice, the expansion and integration of additional capacities such as Unmanned Aerial Systems (UAS) into *Polar Epsilon*, the CAF's space-based surveillance system, and the stand-up of an Army Reserve Infantry Company in Yellowknife, NWT.<sup>41</sup>

There have been some notable successes in terms of expanding Arctic military capabilities, especially as seen with the Canadian Rangers. "The Rangers are a national success story .... They provide an excellent opportunity for northern capacity-building, with participants provided with training in first aid, search and rescue, and emergency response."<sup>42</sup> The Rangers program, at one point in the 1970s at serious risk of being closed, has been revitalized and Rangers now provide over 90% of the CAF's enduring

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Arctic ice capabilities for the still-as-of-yet not-launched replenishment ships, extensive delays to the Aurora fleet replacement, amongst other issues.

<sup>41</sup> Canada, Department of Indian Affairs and Northern Development, *Canada's Northern Strategy: Our North, our Heritage, our Future* (Ottawa, ON, Canada: Department of Indian Affairs and Northern Development, 2009), 10-11.

<sup>42</sup> Coates, Ken S., P. Whitney Lackenbauer, William R. Morrison, and Greg Poelzer, *Arctic Front: Defending Canada in the Far North* (Toronto, ON: Thomas Allen Publishers, 2010), 203.

military presence north of the 55<sup>th</sup> parallel as a tangible symbol of Canadian sovereignty.<sup>43</sup>

Another partial success in expanding Arctic military surveillance and reconnaissance capabilities has been “*Project Epsilon* which uses the Canadian owned and operated RADARSAT-2 satellite constellation for real-time surveillance of Canada’s Arctic.”<sup>44</sup> This project is largely complete and employs two permanent ground stations for the receipt and analysis of imagery from RADARSAT-2. It provides a real-time northern surveillance capability that, while effective by itself, could be substantially enhanced via the acquisition and integration of high altitude long endurance (HALE) and medium altitude long endurance (MALE) UAS. The government, however, has not yet decided which platform/s will meet Canada’s requirements as part of a national integrated intelligence, surveillance and reconnaissance capability, and so Polar Epsilon remains the only fully implemented component of this intended capability. The HALE and MALE UAS fleets are also intended to carry-out coastal maritime surveillance, thus freeing up the upgraded Aurora aircraft fleet to conduct Arctic surveillance missions, and the failure to realize the UAS capability therefore has broader effects on our ability to support Canadian Arctic sovereignty.<sup>45</sup>

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<sup>43</sup> Rob Huebert, ed., *Thawing Ice - Cold War: Canada's Security, Sovereignty, and Environmental Concerns in the Arctic* (Winnipeg, MB: Centre for Defence and Security Studies, 2009), 65-70.

<sup>44</sup> Levon Bond, "JUSTAS and Project Epsilon: Integrated Intelligence, Surveillance and Reconnaissance of the Canadian Arctic," *Canadian Military Journal* Vol. 11, No. 4 (Autumn 2011, 2011), 25.

<sup>45</sup> *Ibid*, 26-27. This section, in the interests of space, was heavily synthesized from Bond’s article.

Unfortunately, while the initial announcements of expanded Arctic military capabilities were conducted with great fanfare and energy, the subsequent difficulties of realizing these 'Means' have led to quiet reductions in terms of scope and capabilities, worsened by extensive delays and dwindling financial resources for DND. The Canadian Army's Arctic Training Centre, co-located with the Canadian Government's Arctic Shelf Centre, comprises a few QM-type cages of non-perishable consumables and approximately fifty winterized light and medium snowmobiles and some all-terrain vehicles (ATVs), with accompanying trailers, preserved and secured by a local business operator in Resolute Bay. Shipping, establishing and maintaining anything more in that location would be prohibitively expensive, requiring extensive coordination with the local business operator and recurring verification visits as to equipment and stores serviceability.<sup>46</sup> Over six and a half years after the initial governmental announcement regarding the plans for Nanisivik as a vital component of Canada's Arctic strategy, construction has yet to begin on the deep-sea naval refuelling station and facility, and the CAF is now projecting a start date of 2017 or later, largely due to continued budget pressures and reductions.<sup>47</sup>

Perhaps most concerning has been the design and procurement of the AOPS fleet, arguably the military lynchpin of the Canadian government's Northern Strategy. As originally envisioned, the capabilities and capacities of this fleet of vessels were oriented

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<sup>46</sup> As the Canadian Army G4 Operations 2 May 2012 – August 2013, one of my secondary files to provide over-watch on was the Army's Arctic Training Centre, so this information is current as of August 2013.

<sup>47</sup> Chase, *Myth Versus Reality in Stephen Harper's Northern Strategy*, Vol. The North, 2014a). Steven Chase visited Nanisivik in preparing this article and confirmed that one of the very few indicators of Federal Government presence at Nanisivik is a portable trailer with a Government of Canada sign on it, and not much else.

to dual roles of sovereignty and constabulary in Canada's North, capable of operating in first year ice up to one metre thick while also able to accommodate a wide range of federal government agencies under Canada's Whole of Government approach.

Unfortunately, there have been a number of operational, capability and financial issues that have come to dominate the acquisition of these ships. Originally slated for delivery commencing in 2010, later adjusted to 2012, the first of the eight AOPS is now, somewhat optimistically, scheduled to be delivered sometime in 2015.<sup>48</sup> The AOPS project also continues to be plagued by capacity (actual building knowledge and skilled worker availability) and cost overrun issues that may force the re-design and reduction of operational capabilities<sup>49</sup>. There are pointed questions about the operational viability and capacities of AOPS, even as currently planned, with notable concerns including the limited range projected for this ship type (very problematic, considering Nanisivik's continued delays on the eastern side of the Northwest Passage), its relatively slow speed, its light armament in view of its sovereignty and constabulary roles, and its ability to operate in even first year Arctic sea-ice conditions.<sup>50</sup> This key component of the military 'Means' of Canada's Northern Strategy will need to be resolved if Canada is to fulfill its domestic and international responsibilities as an Arctic nation.

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<sup>48</sup> Lee Berthiaume, "Arctic/Offshore Patrol Vessels Hit by Three Year Delay," *Postmedia News*, sec. The Ottawa Citizen: Defence Watch, 8 May 2012, 2012.

<sup>49</sup> Terry Milewski, "Shipbuilding Memo shows More Delays, Cost Overruns," CBC News, <http://www.cbc.ca/news/politics/shipbuilding-memo-shows-more-delays-cost-overruns-1.2563948> (accessed 5/3, 2014). There is a detailed National Shipbuilding Project Update from the DND DM which highlights how many components of the NSPS is at medium to high risk due to a myriad of design, monetary and skilled labour challenges. It is deeply concerning.

<sup>50</sup> This information was pulled from a number of sources and synthesized here, including extensive private conversations with classmates who had just been posted from the NSPS / AOPS project to JCSP 40, as well as the following: Byers, Michael and Stewart Webb, *Titanic Blunder: Arctic Offshore Patrol Vessels on Course for Disaster* (Ottawa, ON, Canada: Canadian Centre for Policy Alternatives,[2013]), 12-28; Chase, *Myth Versus Reality in Stephen Harper's Northern Strategy*, Vol. The North, 2014a).

### **The Way Ahead.**

In the near to mid-term, Canada has strategic options with its closest ally, the USA, via the *Arctic Co-operation Agreement*, as well as the Arctic Eight via the Arctic Council, with the United Nations Commission and UNCLOS, and with the IMO via the *Arctic Shipping Guidelines*. Reinforced by past successes and the current geopolitical climate, bi-lateral and multi-lateral efforts to arrive at a collaborative agreement for the management and protection of the Arctic region need to continue. As a former American ambassador to Canada noted,

[t]he real threats in the North do not come from other nations. They come from the two challenges that have existed since man first set foot in that region: hostile weather and vast distances. And the only way that Canada and all other nations are going to deal with those challenges is the way that indigenous people have dealt with them from time immemorial: co-operation.<sup>51</sup>

Of note, Russia has indicated increasing desires for influence in the Arctic region, including its placement of a Russian flag underwater at the geographic North Pole in 2011 and its expanded and increasing use of nuclear icebreakers, as well as announced increases to Russian military forces in the region.<sup>52</sup> However, while Russia is making efforts to nationalize and militarize its presence in the Arctic, Vladimir Putin acknowledges an awareness of the challenges of the Arctic and the necessity of international cooperation, saying that “if you stand alone, you cannot survive in the Arctic.”<sup>53</sup> Clearly, a collaborative and rules-based effort via the medium of international

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<sup>51</sup> Steven Chase, "Myth Versus Reality in Stephen Harper's Northern Strategy," *The Globe and Mail*, sec. The North, 20 January 2014, 2014a.

<sup>52</sup> Mark MacKinnon, "Putin Aims to Revive Soviet-Era Arctic Dominance," *The Globe and Mail*, sec. The North, 17 January 2014, 2014.; Murray, Robert and Tom Keating, "Containing Russia should Not Mean Bringing NATO to the Arctic," *The Globe and Mail*, sec. Debate, 25 April 2014, 2014.

<sup>53</sup> Byers, *Squeeze Putin, Yes, but the Arctic is Not Ukraine*, Vol. Globe Debate, (2014).



law has substantial potential for success and thus must continue. As one former US diplomat noted,

Energy exploration and control over areas in the Arctic beyond the 200-mile Exclusive Economic Zone are thoroughly scripted. They will be handled by duelling mapping agencies, seismic studies, and probably, ultimately by jurisprudence, but not by duelling gun boats.<sup>54</sup>

Canada's cooperative and consultative efforts in the Arctic region must continue, as these efforts, more than militarization and securitization, are Canada's best opportunity for the achievement of its Arctic end-state, especially in light of a myriad of military procurement delays and issues.

Although it is fraught with challenges and issues, a final potential multi-lateral option for Canada to consider in addressing the management and protection of the Arctic region, is the role of NATO. The Canadian Government has been extremely reticent for NATO to have any involvement in the Arctic region, as clearly articulated by Stephen Harper to the NATO Secretary-General.<sup>55</sup> However, already-noted delays to key Canadian military Arctic capabilities, the lack of a replacement fighter platform on the horizon capable of sustained Arctic operations (the present CF-18 is hampered by issues of both suitable northern infrastructure as well as integral Arctic capabilities) and the increasing efforts by Russia to reassert its northern presence, may mean that Canada has little choice but to align itself with NATO for a more coherent and concerted effort to

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<sup>54</sup> Griffiths, Franklyn, Rob Huebert, P. Whitney Lackenbauer, Suzanne Lalonde, and The Honourable Paul Okalik, *Canada's Arctic Interests and Responsibilities*, Toronto, ON ed. Canadian International Council, 2008, Vol. 65, No. 4.), 25.

<sup>55</sup> John Ivison, "Crimea Crisis Forcing Harper to Rethink NATO, Arctic Defence," *The National Post*, sec. Full Comment, 17 March 2014, 2014.

counteract Russia's northern aspirations. This certainly runs the risk of polarizing the globe in terms similar to the previous Cold War, as well as militarizing the Arctic; however, with continued Canadian military procurement setbacks and cost overruns adding to other governmental failings, Canada on its own does not have the 'Means' to bring about its desired Arctic end-state of a stable and rules-based region. Rather, NATO might be a viable medium by which these interests can be realized.<sup>56</sup>

The best possible course of action in addressing Arctic boundaries and issues of sovereignty remains via bi-lateral, multi-lateral and international consultative avenues and efforts. Nevertheless, there are military capabilities within the 'Means' component of Canada's Arctic strategy that have great potential to underpin these efforts while supporting the government's desired Arctic end-state. As a first step, nascent projects including operationalizing Nanisivik, putting into service operationally effective AOPS platforms, and ramping up the Army's Arctic Training Centre need to be aggressively pushed to full operational capability. The government, through its policy direction and resource allocation, must ensure a functional and responsive Army Reserve capability in the North, must sustain the successes of the expanded Canadian Rangers program, and must continue to foster and entrench a military culture that sees the north as a fundamental and viable operational region for the CAF (i.e. via Operation NANOOK, 1

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<sup>56</sup> This paragraph is based on research from five key sources, including: John Ivison, "Canada Under Increasing Pressure to Come Up with Co-Ordinated NATO Response to Russia in Arctic," *The National Post*, sec. Canada Politics, 23 April 2014, 2014a, John Ivison, "Crimea Crisis Forcing Harper to Rethink NATO, Arctic Defence," *The National Post*, sec. Full Comment, 17 March 2014, 2014, Mark MacKinnon, "Putin Aims to Revive Soviet-Era Arctic Dominance," *The Globe and Mail*, sec. The North, 17 January 2014, 2014, Murray, Robert and Tom Keating, "Containing Russia should Not Mean Bringing NATO to the Arctic," *The Globe and Mail*, sec. Debate, 25 April 2014, 2014, and Jadwiga Zakrzewska, *Security in the High North: NATO's Role* (Brussels, Belgium: NATO Parliamentary Assembly: Political Committee (Sub-Committee on Transatlantic Relations),[2013]).

CMBG's ARCTIC RAM, etc.). At the same time, purchasing and integrating HALE and MALE UAS platforms into *Project Epsilon* and capabilities such as the *Polar Hawk* platform would provide Canada with a significant increase in Arctic region surveillance and reconnaissance capabilities. These new procurements must be pushed forward in concert with a replacement for the Maritime Patrol Aircraft, recently delayed again in the latest procurement pause announced by the federal government.<sup>57</sup>

### **Conclusion.**

The Arctic holds vital interest for, and influence in, Canada. The impending and potentially catastrophic effects of global warming and the probable resultant international and national strategic, sovereignty, economic and environmental challenges, are world-changing. The race to capitalize on the prospective resource treasure-trove of the Arctic Shelf and Arctic Archipelago has the potential to be fractious, as other countries with Arctic interests seek to gain economic benefits from the North.

Canada is and will continue to be a key global player in the strategically and economically vital Arctic region. The present government's northern foreign policy, as defined in its national arctic strategy and expressed via its defined 'Ends' and 'Ways',

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<sup>57</sup> This information on these subjects was synthesized from four different sources, including Murray Brewster, "Ottawa Considers High-Altitude Drones for Arctic Surveillance," *The Globe and Mail*, sec. Politics, 30 May 2012, 2012, Colin Kenny, "Canada Needs Fighter Jets and Drones to Defend its Borders," *The National Post*, sec. Full Comment, 28 February 2012, 2012.; Murray Brewster, "Ottawa Considers High-Altitude Drones for Arctic Surveillance," *The Globe and Mail*, sec. Politics, 30 May 2012, 2012.; Paul Koring, "In the Arctic, Drones could Close the Gap," *The Globe and Mail* 9 July 2012, 2012. Paul Koring, "In the Arctic, Drones could Close the Gap," *The Globe and Mail*, 9 July 2012, 2012. David Pugliese, "Canada to Seek Less Expensive Maritime Patrol Plane, Upgrade More Auroras," *The Defence News*, sec. World News / Americas, 30 March 2014, 2014.

includes many inherently logical, constructive and sound components, especially in terms of bi-lateral, multi-lateral and legal agreements and declarations, that strongly advance Canada's desired intent for the Arctic to be a rules-based and stable region of the world. The trend of collaboration and consultation in working towards a common vision for the Arctic needs to continue. Acknowledging that the CAF remains a vital component of Canada's Northern Strategy, and a primary tool of national sovereignty and intent, the government must bring to fruition what it has promised to Canada, the CAF and the world, in terms of an Arctic operational capability and enduring presence, through naval, air and land capabilities.

The present incongruities between the 'Ends' and 'Ways' components of the strategic equation, and the 'Means' as represented in terms of the Canadian Armed Forces, creates some discord in Canada's national and international positions on the Arctic. In order for Canada to attain and retain its desired position among Arctic-oriented nations, it is necessary to align Canada's Ends, Ways, and Means for the Arctic; this paper has outlined, in general terms, some options to do so. The reality is that Canada will never be able to compete with the economic and military power of potential Arctic rivals. Thus, a more harmonized and synchronized Arctic strategy that capitalizes on Canada's inherent national and global strengths and minimizes its weaknesses, remains necessary. Canada's future northern approach must better align its 'Ends-Ways-Means' Arctic strategy model between the desired end-state, the rhetoric of national policy and the actual tools to support its goals, in order to secure Canada's vital interests of sovereignty, security, economics, and the environment in the Arctic, without intensifying

potential divisions and conflicts in this complex region. Neither Canada nor the world can afford a militarized Arctic region. Fortunately, there are mutually supporting 'Ways' and 'Means', both domestically and internationally, identified within this paper, that can offer Canada a more holistic and synchronized policy for Canada's continuing central role in the Arctic region.

## Bibliography

- Arctic Circle Panel. "How we Misunderstand the Canadian North." *The Globe and Mail*, 24 January 2014, 2014, sec. The North.
- . "The Myth of Arctic Sovereignty: Do we really Need to Defend the North?" *The Globe and Mail*, 22 January 2014, 2014, sec. The North.
- Balasevicius, Tony. "Towards a Canadian Forces Arctic Operating Concept." *Canadian Military Journal* Vol. 11, no. No. 2 (Spring, 2011, 2011).
- Berthiaume, Lee. "Arctic/Offshore Patrol Vessels Hit by Three Year Delay." *Postmedia News*, 8 May 2012, 2012, sec. The Ottawa Citizen: Defence Watch.
- Bond, Levon. "JUSTAS and Project Epsilon: Integrated Intelligence, Surveillance and Reconnaissance of the Canadian Arctic." *Canadian Military Journal* Vol. 11, No. 4, (Autumn 2011, 2011): 24-29.
- Brewster, Murray. "Ottawa Considers High-Altitude Drones for Arctic Surveillance." *The Globe and Mail*, 30 May 2012, 2012, sec. Politics.
- Byers, Michael. "Build an Arctic Gateway to the World." *The Globe and Mail*, 3 April 2009, 2009, sec. Globe Debate.
- . "Squeeze Putin, Yes, but the Arctic is Not Ukraine." *The Globe and Mail*, 2 May 2014, 2014, sec. Globe Debate.
- Byers, Michael and Stewart Webb. *Titantic Blunder: Arctic Offshore Patrol Vessels on Course for Disaster*. Ottawa, ON, Canada: Canadian Centre for Policy Alternatives, 2013.
- Canada, Department of Foreign Affairs, Trade and Development Canada. "The Arctic Council." Government of Canada, accessed 5/01, 2014, <http://www.international.gc.ca/arctic-arctique/council-conseil.aspx?lang=eng>.
- . . *Statement on Canada's Arctic Foreign Policy*. Ottawa, ON: Government of Canada, 2010 (Updated 2013).
- Canada, Department of Indian Affairs and Northern Development. *Canada's Northern Strategy: Our North, our Heritage, our Future*. Ottawa, ON, Canada: Department of Indian Affairs and Northern Development, 2009.
- Canada, Department of National Defence. *Canada First Defence Strategy*. Ottawa, ON: Department of National Defence, 2008.

- Canada, Government o. "Canada's Northern Strategy." Government of Canada, accessed 8 April, 2014, <http://www.northernstrategy.gc.ca/index-eng.asp>.
- Canada, Statistics. "Canada 2011 Census." , accessed 04/30, 2014, <http://www12.statcan.gc.ca/census-recensement/index-eng.cfm?HPA>.
- Chase, Steven. "Myth Versus Reality in Stephen Harper's Northern Strategy." *The Globe and Mail*, 20 January 2014, 2014, sec. The North.
- . "Q&A with Harper: No Previous Government has 'Delivered More in the North'." *The Globe and Mail*, 18 January 2014, 2014, sec. The North.
- Coates, Ken S., P. Whitney Lackenbauer, William R. Morrison, and Greg Poelzer. *Arctic Front: Defending Canada in the Far North*. Toronto, ON: Thomas Allen Publishers, 2010.
- Dittmann, Paul. "In Defence of Defence: Canadian Arctic Sovereignty and Security." *Journal of Military and Strategic Studies* Vol. 11, No. 3, no. No. 3 (Spring 2009, 2009).
- Eikmeier, Colonel Dale C. "A Logical Method of Centre-of-Gravity Analysis." *Military Review* (September-October 2007, 2007).
- Emmerson, Charles. *The Future History of the Arctic*. New York City, NY, USA: Public Affairs, 2010.
- Fergusson, Doctor James. "Canadian Military Space at a Crossroads." *Space Quarterly* 2, no. 1 (6 March 2012, 2012): 32.
- Griffiths, Franklyn. "Pathetic Fallacy: The Canada's Arctic Sovereignty is on Thinning Ice." *Calgary Papers in Military and Strategic Studies* Occasional Paper No. 4, 2011, (2011).
- Griffiths, Franklyn, Rob Huebert, and P. Whitney Lackenbauer. *Canada and the Changing Arctic: Sovereignty, Security, and Stewardship*. Waterloo, ON: Sir Wilfrid Laurier University Press, 2011.
- Griffiths, Franklyn, Rob Huebert, P. Whitney Lackenbauer, Suzanne Lalonde, and The Honourable Paul Okalik. "Canada's Arctic Interests and Responsibilities." Toronto, ON, Canadian International Council, 20 - 21 June 2008, 2008, Vol. 65, No. 4.
- Hubert, Robert. *Canadian Arctic Sovereignty and Security in a Transforming Circumpolar World*. Vol. Foreign Policy for Canada's Tomorrow, No. 4. Toronto, ON.: Canadian International Council, 2009.

Huebert, Rob. *The Newly Emerging Arctic Security Environment*. Calgary, AB: Canadian Defence & Foreign Affairs Institute, 2010.

———. *Thawing Ice - Cold War: Canada's Security, Sovereignty, and Environmental Concerns in the Arctic*. Bison Paper 12. Winnipeg, MB: Centre for Defence and Security Studies, 2009.

Iverson, John. "Canada Under Increasing Pressure to Come Up with Co-Ordinated NATO Response to Russia in Arctic." *The National Post*, 23 April 2014, 2014, sec. Canada Politics.

———. "Crimea Crisis Forcing Harper to Rethink NATO, Arctic Defence." *The National Post*, 17 March 2014, 2014, sec. Full Comment.

Kenny, Colin. "Canada Needs Fighter Jets and Drones to Defend its Borders." *The National Post*, 28 February 2012, 2012, sec. Full Comment.

Koring, Paul. "In the Arctic, Drones could Close the Gap." *The Globe and Mail*, 9 July 2012, 2012.

Kraska, James, ed. *Arctic Security in an Age of Climate Change*. New York City, NY, USA: Cambridge University Press, 2011.

Lykke Jr., Arthur F. "Toward an Understanding of Military Strategy." In *US Army War College Guide to Strategy*, edited by Cerami, Joseph R., and James F. Holcomb, Jr. Carlisle Barracks, PA: US Army War College, 2001.

Lykke, Arthur F. "Defining Military Strategy." *Military Review* 77, no. 1 (Jan, 1997): 182.

MacKinnon, Mark. "Putin Aims to Revive Soviet-Era Arctic Dominance." *The Globe and Mail*, 17 January 2014, 2014, sec. The North.

Mackrael, Kim. "Canada, Denmark Closer to Settling Border Dispute." *The Globe and Mail*, 30 November 2012, 2012, sec. National / International.

———. "Ottawa Upbraids Russian Envoy, Skips Arctic Council Meeting Over Ukraine." *The Globe and Mail*, 15 April 2014, 2014, sec. Politics.

Maduro, Morris. "Northern Shortcut: The Temptation of One Warming Line through the Arctic." *Canadian Geographic* nd00, no. November/December 2000 (2000, 2000): 30 April 2014.



- Milewski, Terry. "Shipbuilding Memo shows More Delays, Cost Overruns." CBC News, accessed 5/3, 2014, <http://www.cbc.ca/news/politics/shipbuilding-memo-shows-more-delays-cost-overruns-1.2563948>.
- Mining Industry Human Resources Council. "Mining Facts and Figures." , accessed 04/30, 2014, <http://www.acareerinmining.ca/en/industry/factsfigures.asp>.
- Murray, Robert and Tom Keating. "Containing Russia should Not Mean Bringing NATO to the Arctic." *The Globe and Mail*, 25 April 2014, 2014, sec. Debate.
- Murray, Robert W. "Comment: Canada is Falling Short in Arctic Defence." *The Times Colonist*, 3 September 2013, 2013, sec. Opinion.
- Parliament, Library o. "Canadian Arctic Sovereignty." , accessed 04/30, 2014, <http://www.parl.gc.ca/Content/LOP/researchpublications/prb0561-e.htm>.
- Pugliese, David. "Canada to Seek Less Expensive Maritime Patrol Plane, Upgrade More Auroras." *The Defence News*, 30 March 2014, 2014, sec. World News / Americas.
- Regeher, Ernie. *Circumpolar Military Facilities of the Arctic Five*. Vancouver, BC: The Simons Foundation, 2013.
- Stackhouse, John. "How Canada's North has Become a Test of Nation-Building for Us all." *The Globe and Mail*, 30 January 2014, 2014, sec. Letter from the Editor.
- The Arctic Council. "Arctic Council - Home, Environment and People, about Us." , accessed 5/01, 2104, <http://www.arctic-council.org/index.php/en/>.
- VanderKlippe, Nathan. "For China, North is a New Way to Go West." *The Globe and Mail*, 20 January 2014, 2014, sec. The North.
- Watson, Scott. "Arctic Sovereignty in Canada: A Case of Successful Or Failed Securitization." Conference Paper, Scott Watson, Department of Political Science, University of Victoria, Victoria, BC.
- Wezeman, Siemon T. *SIPRI Background Paper: Military Capabilities in the Arctic*. Stockholm, Sweden: Stockholm International Peace Research Institute, March 2012.
- Wikipedia. "Northern Canada." Wikipedia, accessed 04/30, 2014, [http://en.wikipedia.org/wiki/Northern\\_Canada](http://en.wikipedia.org/wiki/Northern_Canada).
- Worden, Peter. "Sealift a Lifeline to Remote Hamlets in the North." *The Globe and Mail*, 18 January 2014, 2014, sec. The North.

Yarger, Richard H. "Towards a Theory of Strategy: Art Lykke and the Army War College Strategy Model." In *The US Army War College Guide to National Security Issues, Volume I: Theory of War and Strategy*, edited by J. Boone Bartholomees, Jr. Vol. Vol. I. Carlisle Barracks, PA: Strategic Studies Institute, 2010.

Zakrzewska, Jadwiga. *Security in the High North: NATO's Role*. Brussels, Belgium: NATO Parliamentary Assembly: Political Committee (Sub-Committee on Transatlantic Relations), 2013.

Zellen, Barry Scott, ed. *The Fast-Changing Arctic: Rethinking Arctic Security for a Warmer World*. Calgary, AB: University of Calgary Press, 2013.