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CANADIAN ARCTIC SOVEREIGNTY AND SECURITY IN A TRANSFORMING CIRCUMPOLAR WORLD

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EXECUTIVE SUMMARY

The ongoing transformation of the Arctic is as startling as it is unprecedented. Global warming is having a dramatic impact on the Arctic environment, resulting in warmer temperatures, melting ice and the opening of previously ice-covered waterways. Consequently, the Arctic is becoming increasingly accessible to a number of different actors who are descending upon the Arctic with varied, and not mutually beneficial, agendas.

As an Arctic nation Canada is not immune to the consequences of the transformation taking place in the Arctic. Various actors come to the Arctic as its increasing accessibility encourages both exploitation and development of this important region. Control of the Arctic will yield significant benefit to the country wielding this control. As challenges to Canada's command of its Arctic region have been made in the past, it is not inconceivable that disputes to Canada's control of its Arctic will be made in the future.

Numerous Arctic states now assert their Arctic interests. In addition to Canada, the United States, Russia, Iceland, Denmark, Finland, Sweden and Norway, all seek to bolster their various Arctic claims. Even non-Arctic states such as China, Japan and South Korea have become very active in the region. Their claims vary from resource exploitation and development, to division of the Arctic seabed, right of transit in the Northwest Passage and interests in the Arctic. As the various actors advance their claims, the potential exists for a serious challenge to emerge for Canada's sovereignty and security in its Arctic.

Given the transformation of the Arctic, and the consequent challenges to Canadian Arctic sovereignty, the protection of Canadian Arctic sovereignty is essential to the provision of Canadian Arctic security, and vice versa. Sovereignty and security are not mutually exclusive concepts; they are interdependent. The core of Canadian Arctic sovereignty is the federal government's ability to control what happens in the Canadian Arctic, while Arctic security is the Canadian government's ability to respond to all forms of threats that arise in its Arctic region. The government cannot control activity that takes place in its Arctic region in the absence of any ability to enforce against threats that arise and, similarly, the government cannot respond to threats in the region if it does not have control in the region.

While previous Canadian governments recognized the importance of Canadian Arctic security and sovereignty, they did little to ensure that it would be achieved. Successive Canadian administrations were unwilling to allocate the financial resources necessary to acquire and maintain assets that would bolster Canada's sovereignty and security in the region. As a result of Canada's perceived diminished capacity to protect its sovereignty and security in the region, other nations have openly sought to advance their Arctic claims, often at the expense of Canada's position.

In order to enforce and ensure its sovereignty and security in the Canadian Arctic, our government must act now to take the following steps:

- First, Canada must improve its decision-making process on Arctic affairs. It needs to create a Cabinet committee, chaired by the Prime Minister, which is focused solely on the Arctic. Only by ensuring that the Prime Minister is continuously engaged in Arctic issues will attention to the region be maintained.
- Secondly, we must improve Canadian surveillance and enforcement capability. Only the ability to know who is in our Arctic region and what they are doing there will allow us to control those actors and their activities. Outside actors will be unable to operate in the Canadian Arctic undetected or unrestricted. In order to achieve this capability, the Canadian government will have to provide the financial resources necessary to acquire, build and maintain the infrastructure and equipment.

- Finally, Canada must cooperate better with its Arctic neighbours. Cooperation with other Arctic states, particularly the United States and Russia, will be essential to develop an international Arctic framework that will serve as a guideline for rules of engagement.

Canada must be prepared to deal with challenges to its Arctic sovereignty and security now, in a concise and effective manner. To do so later, or to do so now in some half measure, will ensure that Canadian Arctic sovereignty and security is merely a theory and never a reality.

RÉSUMÉ

La transformation actuelle de l'Arctique est à la fois spectaculaire et sans précédent. L'incidence radicale du réchauffement planétaire sur son environnement a entraîné une hausse des températures, la fonte des glaces et l'ouverture de voies d'eau encore gelées jusqu'à récemment. L'Arctique devient ainsi de plus en plus accessible à différents acteurs dont les intérêts répondent à des objectifs variés qui n'ont rien de mutuellement avantageux.

En tant que nation arctique, le Canada n'est pas immunisé contre les répercussions de cette transformation. Ces acteurs qui se rendent dans un Arctique désormais plus accessible préconisent à la fois le développement et l'exploitation de cette importante région. Et ceux qui pourront la contrôler en tireront des avantages considérables. Or la gestion exercée par le Canada sur son propre territoire arctique a été contestée par le passé, et il est loin d'être exclu qu'elle suscite d'autres litiges dans un avenir prochain.

Plusieurs États arctiques font aujourd'hui valoir leurs intérêts dans la région. Outre le Canada, les États-Unis, la Russie, l'Islande, le Danemark, la Finlande, la Suède et la Norvège défendent tous leurs revendications respectives. Même des nations non arctiques comme la Chine, le Japon et la Corée du Sud sont très actifs. Leurs revendications vont du développement et de l'exploitation des ressources à la répartition du fond marin, du droit de transit dans le passage du Nord-Ouest à différents intérêts dans l'Arctique. Et mieux ces acteurs feront valoir leurs revendications, plus la souveraineté et la sécurité canadiennes risquent de se heurter à de sérieuses difficultés.

Vu la transformation de la région et les défis qui s'ensuivent pour la souveraineté canadienne dans l'Arctique, la protection de cette souveraineté est devenue indispensable à la sécurité du Canada dans la région, et inversement. Car loin de s'exclure réciproquement, les notions de souveraineté et de sécurité sont interdépendantes. Et au cœur de la souveraineté canadienne dans l'Arctique se trouve la capacité du gouvernement fédéral de contrôler les activités qui se déroulent dans l'Arctique canadien, alors que notre sécurité dans la région dépend de la capacité de ce même gouvernement de répondre à toutes les formes de menace qui pèsent sur son territoire arctique. Mais Ottawa ne peut contrôler ces activités en l'absence de moyens de combattre ces menaces, tout comme il ne peut réagir aux menaces sans exercer de contrôle sur la région.

Les précédents gouvernements fédéraux ont certes reconnu l'importance de la souveraineté et de la sécurité du Canada dans l'Arctique, mais ils ont pris peu de mesures pour les concrétiser. Ils ont en effet négligé d'affecter les ressources financières nécessaires à l'acquisition et à la conservation de biens qui favoriseraient notre souveraineté et notre sécurité. Quelles sont les conséquences de cette perception d'une capacité amoindrie touchant la protection de notre souveraineté et de notre sécurité ? D'autres nations ont ouvertement fait valoir leurs revendications, souvent au détriment de la position canadienne.

Pour appliquer et garantir la souveraineté et la sécurité du Canada dans l'Arctique, Ottawa doit sans plus tarder prendre les mesures suivantes :

- Premièrement, améliorer le processus décisionnel relatif aux affaires arctiques. Pour ce faire, Ottawa doit créer un comité du Cabinet présidé par le premier ministre et exclusivement centré sur l'Arctique. Seul l'engagement permanent du chef de l'État canadien assurera aux questions arctiques d'être l'objet d'une attention continue.
- Deuxièmement, nous devons renforcer nos capacités de surveillance et d'application de la loi. Car c'est uniquement en sachant qui se trouve dans l'Arctique canadien et pour quelles raisons

que nous pourrions contrôler leurs activités. Ainsi, les acteurs externes ne pourront plus agir à leur aise, sans être détectés ni restreints dans leur action. Pour se donner ces capacités, Ottawa doit affecter les ressources financières permettant l'acquisition, la construction et l'entretien d'équipements et d'infrastructures.

- Enfin, le Canada doit collaborer plus étroitement avec ses voisins de l'Arctique. Cette coopération, notamment avec les États-Unis et la Russie, sera indispensable à l'élaboration d'un cadre international qui servira de lignes directrices et de règles d'engagement pour l'Arctique.

Le Canada devrait déjà pouvoir réagir de façon incisive et efficace à toute mise en cause de sa souveraineté et de sa sécurité dans l'Arctique. S'il tarde à le faire, ou s'il se contente aujourd'hui de demi-mesures, sa souveraineté et sa sécurité dans l'Arctique resteront théoriques sans jamais devenir réalité.

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CANADIAN ARCTIC SOVEREIGNTY AND SECURITY IN A TRANSFORMING CIRCUMPOLAR WORLD

Rob Huebert¹

INTRODUCTION

The core objective of this paper is to achieve an understanding of Canadian Arctic sovereignty and security in the context of a fundamentally changing Arctic. First, it will examine sovereignty and security. The paper will then examine the forces that are transforming the very fabric of the Arctic, specifically climate change, resource development and geopolitical forces.

The Arctic is undergoing change at a startling pace, which has astonished Canadians and the world. It is impossible to pick up a newspaper or to turn on the TV without learning about a new development that has ramifications for the Canadian north. Inevitably any discussion about the Canadian north usually begins with a discussion about "protecting" Arctic sovereignty. Sovereignty is an issue that always attracts the attention of the media and decision makers, as well as Canadians in general. One only has to suggest that Canada is "losing" its Arctic sovereignty for a firestorm of heated debates to erupt. It is an interesting era for the Canadian Arctic and for Canadians.

Canadian Arctic policy is faced with some of the most intriguing, yet complex, challenges in its history. Never before has the very nature of the Canadian Arctic region been altered by such a widespread set of factors. Perhaps the greatest current challenge for Canada is the worldwide realization that the Arctic is melting, and so it is more accessible than ever before. Consequently, Canada must prepare for the outside world's entry into the Arctic. With international challenges to Canadian control of the region now emerging, Canada can no longer afford to ignore its Arctic.

PART I: UNDERSTANDING SOVEREIGNTY AND SECURITY

Sovereignty

At the heart of the definition of sovereignty is its evolution as a legal term used to explain or define the means by which sovereigns, such as kings or queens, had control over their subjects. Sovereignty emerged as a term for understanding the rights and responsibilities that leadership had over their land. As the feudal period evolved into the modern state, this concept also evolved. Sovereignty became the theoretical cornerstone of the international legal state system.²

There are three main elements of sovereignty: a defined territory; an existing governance system and a people within the defined territory. In order for a state to have "sovereignty" it must have each of these elements.³ A state must have a functioning government system that is able to make final decisions that are

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² Jens Bartelson, *A Genealogy of Sovereignty* (Cambridge: Cambridge University Press, 1995).

³ James Allan, *Sovereign Statehood* (London: Allen and Unwin, 1986).

enforced upon the people within its geographic territory. Each of these variables may appear to be straightforward but the reality is that all three are difficult to achieve within the Arctic. Thus any question of whether or not a state has sovereignty tends to be bound in determining the degree to which these variables are fulfilled.

The most common problem with determining the existence of sovereignty tends to be associated with the existence of an accepted governance system. The sovereignty of a state is said to be threatened when parties compete to govern. In such cases, until one side is defeated, either militarily or politically, or a negotiated settlement is reached whereby the competing bodies agree to share power as a single entity, there is no one sovereign body. The process for determining sovereignty is complicated by the fact that even after the competition for power is internally settled, the international community must also accept the new governing body.

In the Canadian Arctic there is no question about the existence of an accepted governance system. This system may be evolving as power devolves to the territories, but as long as this is done on a peaceful basis, all sovereign states have the right to allocate their powers to political sub-units within their borders. Within the borders of the Canadian Arctic, the northern Canadian population has completely accepted the government's right to govern. Thus the federal government does not diminish the sovereignty of the Canadian state by transferring powers to its three northern territories: the Northwest Territories, Nunavut and the Yukon.

This transfer leads to the issues surrounding the second variable of sovereignty, which requires that a people is contained within the defined geography of a state. Consequently, there is no sovereignty in a case where there is no local population, such as Antarctica. But there are no limits as to how small a population can be. The Canadian Arctic contains a small number of individuals, but it contains enough to give Canada sovereignty over all of the land territory of its Arctic. The only land area in Canada where Canada's sovereignty is challenged is Hans Island, a small uninhabited island.

The third variable – defined boundaries – has the greatest relevance for the discussion of Canadian Arctic sovereignty. For a boundary to have validity, the international community needs to agree on its boundaries. The number of states that need to agree before a boundary is said to be accepted remains unclear.

The growing complexity of ocean boundaries is extremely pertinent to sovereignty in the Arctic. A move within existing international law created new maritime zones of control. The United Nations Convention on the Law of the Sea (UNCLOS), which was finalized in 1982 and came into force in 1996, codified existing customary international law and created several new maritime zones.⁴ In general, the farther that the zone moves out from the land territory of the state, the less control the state has over the activities within the zone. Thus the first main zone – the territorial sea – gives the coastal state almost complete control over all activities within it. The one important exception is that the state cannot interfere in the innocent passage of foreign vessels in these waters. Moving closer to shore, the Exclusive Economic Zone (EEZ) extends 200 nautical miles from the coastline of the state. The coastal state has control over all living and non-living resources in this zone. Therefore, only the coastal state can fish, drill for oil or gas or grant permission to a foreign state or organization. However, in the EEZ, the coastal state has no control over international shipping that is not engaged in resource exploitation.

⁴ R.R. Churchill and A.V. Lowe, *The Law of the Sea – 3rd edition* (Manchester: Manchester University Press, 2002).

UNCLOS also creates a third zone of control. A state can extend its control over the ocean soil and subsurface beyond the EEZ if it can show that it has an extended continental shelf. If a state can prove that it meets the criteria required for a continental shelf, and if this shelf extends beyond 200 nautical miles, then a state can claim control of the seabed and its resources for an additional 150 nautical miles (and in some instances even beyond that). A state with this zone has control of all activities that occur on or beneath the seabed. This control is currently understood to mean that the state has authority over activities such as oil and gas development. However, the state has no control over activities in the water column. Thus it cannot have power over shipping, fishing or even scientific research.

There are two other maritime zones that depend on geography and history. If a state has a body of water that directly joins two other international bodies of waters, and this body of water has been used in the past by international shipping, then the joining body of water, or strait, is used for international navigation. The coastal state has the right of control of all activity within this international strait except international shipping as all foreign vessels enjoy the right of passage. This control specifically allows all vessels to travel in their normal mode of transportation. Thus submarines could remain submerged as they transit an international strait.

Internal waters are the last maritime zone of significance for the Arctic. Bodies of waters such as lakes and rivers that lie entirely within the land mass of a state normally fall into this category. The host state enjoys complete control over these waters, including the right to allow or forbid foreign shipping. There may be a small number of instances where a state may designate a specific body of water that lies outside its land boundaries as internal waters. Generally these exceptions occur where there has been historical acceptance of treating them like a lake or river: this designation was codified by UNCLOS as historical bays. Some countries, however, such as Canada have attempted to extend this designation beyond bays.

A challenge to Canadian Arctic sovereignty must involve a dispute with one of the three elements of sovereignty. There is no challenge to the Canadian governance system, and there is an identifiable population that completely accepts the authority of the Canadian government. As a result, the element of sovereignty that is challenged is the recognition of Canada's borders, specifically its Arctic maritime borders. The ultimate question facing Canada is its level of control of its Arctic borders.

Security

The concept of security has undergone a transformation in both theoretical and practical terms since the end of the Cold War. Historically, security was framed in a context that focussed on the military ability of a state to either defend itself against the military actions of other states or to enforce its will on another state. If a state was powerful enough it acted alone. Or if it was not it would develop alliances with other states. The critical element of security was the ability of states to utilize their economic capabilities to build militaries that could both enforce and protect their will.⁵ Thus the use of deadly force was the ultimate means of providing for the security of the state. Security depended on victory in war.

⁵ For the best collection of articles that addresses the entire discussion on the nature of security see: *Strategy in the Contemporary World*, 2nd ed, ed. John Baylis, James Wirtz, Colin Gray and Eliot Cohen (Oxford: Oxford University Press, 2007) and *Contemporary Security Studies*, ed. Allan Collins (Oxford: Oxford University Press, 2007).

The development of nuclear weapons changed the nature of security because the deterrence of nuclear war rather than the waging of war became the ultimate security objective of states during the Cold War period. It remained, however, paradoxical as to avoid war, it was necessary to prepare for war. Security was linked to the ability to build a nuclear weapon capability sufficient enough to deter the opposing side from attacking. National security was still viewed as the core responsibility of the state which could only be achieved through the development of military force (either potential or actual).

As the Cold War came to an end, the consensus on the nature of security was challenged. First, the end of the Cold War ended the nuclear balance that had threatened the existence of the entire international system. With the collapse of the USSR, the core military rivalry with the United States ended and the need for military forces appeared to dramatically diminish. At the same time debates began to develop amongst analysts over the meaning of security. Many began to question whether the traditional definition of security, with its focus on the military and the state, remained valid. Perhaps the most well-known challenge came from those who argued that an expanded conceptualization of security was needed. This led to the development of the concept of human security.⁶

Human security was an attempt to move security away from state-based analysis. This movement was due in part to the recognition that in many instances the state was the cause of insecurity of some or all of its peoples. For example, in repressive regimes such as Pinochet's military dictatorship in Chile or the Khmer Rouge in Cambodia, the state threatened the security of its citizens.

The movement from defensive military use to the construction of international norms and institutions, such as treaties and agreements, supported this new concept of human security and created an environment whereby the affected parties could enjoy security. Efforts were made to construct international means of bringing justice to those who suffered at the hands of the state. Substantial effort was given to create means for outlawing the use and construction of weapons systems, such as anti-personnel land-mines, as well the means for eliminating those that were already deployed.

A second and related challenge to traditional security also began in the 1990s. During this decade some academics and policymakers began to look to the dangers posed by environmental degradation as the best indicator of the need to expand the concept of security.⁷ The physical security of an individual in Bangladesh or the Seychelles who loses their home due to rising sea-levels from melting ice caps as a result of climate change was just as tenuous as someone in a war zone. The argument to extend the meaning of security beyond its traditional understanding gained ground. Supporters of this position pointed to the physical dangers that pollution and environmental degradation posed to the well-being of people both within and beyond the state. As in the case of human security, greater security did not come from military action. Instead, international cooperation occurred at both the individual and state levels. Conceptual extensions of security, similar to advances made by environmental security specialists, have further extended the term "security" to include economic security, cultural security and so on. The major defining element of these efforts is that they usually attempt to expand the definition of security beyond a focus on the state and the military.

⁶ *Human Security and the New Diplomacy: Protecting People, Promoting Peace*, ed. McRae and Don Hubert (Montreal: McGill-Queen's University Press, 2001).

⁷ Thomas Homer-Dixon, *Environment, Security and Violence* (Princeton: Princeton University Press, 1999).

The debate over the meaning of security continues today. Some argue that a continued reliance on a traditional understanding of security is not only wrong in an academic sense, but dangerous because it misleads policy decision making. Others maintain that while the focus on military security may not be politically expedient, the state's primary responsibility is the security and well-being of its citizens.

Having briefly reviewed the manner in which sovereignty and security are understood, what conclusions can be reached prior to discussing Canadian Arctic sovereignty and security? In terms of sovereignty, the issues are complex yet also simple. If Canadian Arctic sovereignty is threatened, the Canadian government does not have control over a specific geographic territory. Stripped of all rhetoric and emotion that normally surrounds this issue, sovereignty becomes about controlling the actions of others within the boundaries claimed by the Canadian government. From this perspective, Canada's challenge lies in the maritime nature of its boundaries of the area in dispute. International laws pertaining to maritime sovereignty are different than those for sovereignty over a land mass. Specifically UNCLOS clearly establishes the various degrees of control over maritime zones: the rule of thumb being that the farther away from the coastline, the less control the coastal state enjoys.

The most important question that follows from the exercise of sovereignty is why exercise it in the first place? What do states gain by pursuing and then defending national sovereignty? Once again, by stripping away the normal rhetoric that surrounds this issue the answer is security. States defend their sovereignty for the principle reason of securing their core interests and values in a specific region. Traditionally this was done through the use of military force. But as the previous review makes clear it is now recognized that some threats to a state's security cannot be addressed by military action. Instead, in some instances such as in the case of environmental security, it is necessary to go beyond traditional answers. Nevertheless, the underlying point is that whatever those steps are to be, they are undertaken with the objective of protecting the security of the state's citizens.

In the context of this discussion, the Canadian government attempts to defend Canadian Arctic sovereignty for the purpose of protecting the security of its citizens as well as the security of the core values and interests of Canadians. The meaning of this will be examined in the following section.

PART II: CANADIAN CONCEPTS OF ARCTIC SOVEREIGNTY AND SECURITY

Throughout much of the Cold War, the effort to have policy reflect the terms "Arctic sovereignty" and "Arctic security" was frustrated by the tendency of Canadian policy makers, media and academics to assume that the two terms were separate and distinct concepts. During the Cold War, Arctic security became associated with defence against the Soviet Union. Canada left the maritime dimensions of Arctic security entirely in American hands while allowing them to pay for much of it. Arctic sovereignty was associated with diplomatic disputes with the United States and with reacting to American actions that were perceived to threaten Canada's claim over the region, most notably the waterways of the north. In this manner Arctic security and Arctic sovereignty were viewed as separate policy concerns.

However, as previously discussed, sovereignty and security are interconnected and can not and should not be separated, which is specifically true in the Canadian Arctic. As argued in the last section, the concept of sovereignty comes down to the issue of control within a specific geographic area by a specific body. Within Canada, Arctic sovereignty can be understood in the context of the Canadian government's ability to control what happens in the area that it defines as its Arctic region.

The issue of Canadian Arctic sovereignty is however complicated by the region's maritime dimension. Within the international law of the sea, the right to make final decisions about what activities occur within its maritime zones is not absolute but is modified by the waterway's nature. Simply put, there are rules that increasingly reduce a state's power the further one ventures beyond its coastline. With the exception of Denmark's assertion of ownership of Hans Island, no other actors in the international system challenge Canada's right to control its Arctic land mass. However, international challenges do emerge over Canada's claim to its Arctic maritime space. The United States disagrees on the boundary dividing the Beaufort Sea. Likewise, Denmark disagrees on division of the Lincoln Sea (though only in two small regions). Canada may also disagree with the United States, Russia and Denmark about its anticipated claim over its continental shelf boundaries in the Arctic Ocean. Canada's most well known Arctic sovereignty issue is over the control of international maritime traffic in the Northwest Passage. Canada claims that the waterways that comprise this Arctic passage are internal waters. Therefore this would mean that the Canadian government has the right to control who can enter these waters and under what conditions. The American and the European Union position is that these waters are part of an international strait which means that Canada does not have final, authoritative decision-making power over the Northwest Passage. The United States and the EU assert that the international community, in this case through the International Maritime Organization (IMO), makes the final decisions. This position means that Canada does not have control over international shipping in the Northwest Passage.

Ultimately whether it is dividing the Arctic Ocean seabed, determining the boundaries of Canadian sections of the Beaufort and Lincoln Sea or shipping in the Northwest Passage, the issue is control. What are the Arctic maritime boundaries that Canada can control and what can it do within these boundaries?

This is where the issue of Arctic security connects with Arctic sovereignty. If sovereignty is about control, what is the reason for this control? If the pursuit of Canadian Arctic sovereignty is only about Canadian decision makers having personal satisfaction from some sense of control, then it is not worth much effort or expense. But if sovereignty is being pursued for the purpose of protecting the security, safety and well-being of Canadians then not only is it worth the effort, but it is an absolute necessity.

As the core issue of Canadian Arctic sovereignty is control, the core issue of Canadian Arctic security is about responding to threats. The threats to Canadian Arctic security are nebulous, multi-dimensional and evolving. Throughout the Cold War, Arctic security was associated only with the threat posed by the USSR to the national survival of Canada and the United States. When the Cold War ended and concerns about traditional threats to national security receded, scientists soon discovered that the Canadian Arctic was the end location for a wide number of pollutants that originated elsewhere on the globe (including seemingly improbable sources such as India and the Philippines). The environmental migration of transboundary pollutants such as persistent organic pollutants, like pesticides and fertilizers, into the north negatively impacted the health of northern Canadians who eat large amounts of local foods in which the pollutants concentrated.⁸ It was soon realized that the environmental security of the Canadian north needed protection. Obviously the means by which to achieve this security is different from the type of security needed for protection against the Soviet threat. But it is still a type of security from a threat that was coming from beyond Canadian boundaries.

⁸ *Northern Lights against POPs: Combating Toxic Threats in the Arctic*, ed. David Downie and Terry Fenge (Montreal-Kingston: McGill-Queen's University Press, 2003).

Issues regarding threats to the law and order of the Canadian north are arising. Recently, foreign criminal elements have made unauthorized entries into the Canadian Arctic. In the summer of 2007, a group allegedly associated with the Norwegian Hells Angels made it as far as Cambridge Bay on a small boat.⁹ Other threats in the Canadian Arctic involve economic, societal and cultural issues. It also appears that traditional security threats are re-emerging as each Arctic nation has begun rebuilding its northern military capabilities.

In effect, Canadian policy makers need to protect Canadian Arctic sovereignty in order to provide for Canadian Arctic security. The Canadian government needs to have control over its north so that it can take action to protect against a wide number of threats that will increasingly come from beyond Canadian northern boundaries. As it is impossible to protect Canadian Arctic security without protecting its Arctic sovereignty and vice versa, the two concepts are completely interlinked.

Who is protected?

One of the most difficult questions to answer is who is protected and how they are best protected. The Canadian north is not a homogenous region but one that supports multiple interests and values, not all of which are similar or complement each other. Furthermore, the events that transform the north impact all Canadians. While those who call the north home, particularly the northern aboriginal peoples, have a special interest in the region, all Canadians are affected by what happens in the Arctic. How does one balance these different interests?

The specific challenges that northern Canadians face complicate the picture. The north has one of the youngest populations in the country. At the same time, the provision of governmental services in this region lags behind the rest of the country. Both education and health care do not match the level of services provided to southern Canadians. Thus a changing north offers both challenges and opportunities for northerners. Climate change in combination with globalization may spell the end of traditional ways of life for many of the younger people. However, the prospect of new resource development projects may offer new employment opportunities to a young population in a region where there is a dire need for new sources of employment. These new projects will contribute to the economic security of the region. But at the same time, these opportunities may result in serious problems. It is already known that mega-projects often result in serious social problems such as drug and alcohol abuse. Increasing suicide rates are also often associated with societies in transition. Improvements in the economic security of the region may come at the cost of societal security.

Policy makers need to understand how the factors affecting the north are affecting the people. In short, protecting Canada's Arctic sovereignty and security must be tied to the domestic needs of Canadians. Without this link to these needs, policy effort loses its meaning and becomes an empty gesture of nationalism. It may make Canadians "feel good" to protect the north against "the foreigners," but it does not afford any real protection of our interests and values, unless this link is understood.

⁹ The story of their association with the Hell's Angels and drugs are alleged activities since they were never proven to have engaged in such actions. CBC, "'Wild Vikings' Land in Cambridge Bay Jail," *CBC News*, August 30, 2007, Accessed June 5, 2009, <http://www.cbc.ca/canada/north/story/2007/08/30/cambay-vikings.html>.

Why is this protection needed?

Why does the Canadian Arctic now need to be better controlled by Canadian decision makers and Canadians? Why is the existing status quo no longer acceptable? Multiple factors are transforming the north into a more accessible region of the world. Southern Canadians will increasingly arrive in the north to reap the benefits of a changing Arctic, which will further impact the Arctic region. At the same time, this accessibility will also enable non-Canadian actors to arrive on the scene and increasingly affect the Arctic region. Thus Canadian policy makers face a situation of developing complexity brought about by factors beyond Canada's borders.

The ongoing transformation of the north makes a moving target of the effort to come to terms with this issue of protection and control in the Canadian Arctic. At this time, it is simply unknown as to who will come to the Arctic and what they will do there. Furthermore, the factors reshaping the north do not proceed in a linear, progressive manner. Instead, events occur at a rapidly increasing rate that defies prediction. The task of protection and control is further complicated by the fact that the duration of these changes is unknown. It is not known if or when the impact of climate change will stop. It is also uncertain how the resources of the north will be exploited, to what level this exploitation will occur and who will exploit the resources. The oft quoted figure that the Arctic contains 13 percent of undiscovered world oil resources and 30 percent of world gas resources is only a sophisticated estimate by the US Geological Survey.¹⁰ It may be less, but it could also be more.

The geopolitical reality is developing in ways that are confounding to all states that border the region. The main issue in the context of geopolitics is the realization that UNCLOS allows most of the Arctic nations to claim the majority of the Arctic Ocean seabed. Under the terms of Article 76, states that believe that they have a continental shelf first need to conduct the science to determine if this belief has merit.¹¹ They then need to submit their findings to a UN commission that will pass judgment on the merits of their studies. Then it is the state's responsibility to peacefully resolve any overlaps they may have with neighbouring states that also claim an extended continental shelf. Even though this section of the Convention was negotiated during the 1970s and the Convention was finalized in 1982, it was not until the late 1990s that most Arctic nations realized the potential of this article to lay claim to much of the Arctic Ocean seabed. This has given rise to an explosion of activity by the Arctic states as they prepare their claims. The Russians have submitted their claim, while Canada and Denmark will follow, in 2013 and 2014, respectively. By not ratifying the Convention, the United States remains outside the process officially, but it is also preparing its claim unofficially.

The United States and Russia are two of the most important actors in the Arctic region. The United States is the sole remaining superpower, but when it comes to the Arctic it acts more like a "reluctant" power, refusing to take its circumpolar responsibilities seriously. It has consistently blocked efforts by Canada and other circumpolar states to create new forms of Arctic governance. For example, it only agreed to join the Arctic Council when the proposed powers of that body were substantially reduced. The Russians have staged a comeback in terms of their Arctic policies, fuelled by rising revenues of their oil

¹⁰ Kenneth J. Bird et al., "Circum-Arctic resource appraisal; estimates of undiscovered oil and gas north of the Arctic Circle," *U.S. Geological Survey Fact Sheet 2008-3049* (2008), Accessed June 5, 2009, <http://pubs.usgs.gov/fs/2008/3049/>.

¹¹ Canadian officials had hoped to use an international treaty that would create an institution that would serve as the central multilateral body for the Arctic. However, the US refused to join if it was created by treaty. Instead the Arctic Council was created as a voluntary body with limited powers. However, since the Americans refused to allow the creation of any other bodies or treaties, it remains the most important Arctic international organization. For a discussion on the politics of the creation of the Arctic Council see: Rob Huebert, "New Directions in Circumpolar Cooperation: Canada, the Arctic Environmental Protection Strategy and the Arctic Council," *Canadian Foreign Policy* 5, no.2 (Winter 1998): 37-58.

and gas exports. This revenue increase in turn encourages the Russians to become more assertive as they move to consolidate and expand the development of their oil and gas resources in their Arctic region.

The Danes are also beginning to assert their power in the north. Denmark is an Arctic state by virtue of its control over Greenland. It currently cooperates with both Canada and the United States to determine both the limits and the potential of oil and gas exploration within its maritime territory. The Danes have also actively attempted to derail any effort to develop a comprehensive Arctic treaty. Officially their position is that the existing framework is adequate for the development of Arctic relations. Unofficially, it may be that they are more concerned that a developing international Arctic treaty could affect the development of their oil and gas reserves off Greenland, or perhaps force them to take a harder stance against the fishers of Greenland and the Faeroes Islands who, allegedly, are increasingly entering Canadian waters illegally.

The Norwegians are also focussing both their foreign and defence policy on the Arctic. They are in the process of building a naval capability that can operate in the north. The Norwegians are also looking to develop oil and gas reserves in their claimed Arctic with positive anticipation but are more concerned about the expected increase in Russian offshore activity.

These are the foreign and defence policies of the main Arctic states as they existed in 2008. It should be clear that all involved countries are attempting to understand and prepare for the new Arctic age. However, it should also be apparent that the issue of the geo-political north is a moving and developing target. While all of the main Arctic states are aware that the north is evolving into a much more important region, they are not entirely certain how that is happening. For example, while the long-term impact of climate change is understood as leading to the eventual melting of the Arctic ice cover, when this will occur is still being debated. Likewise, the regional variations in the melting process are also not fully understood. There is even less understanding as to how the various forces of change interact. No one investigates the impact that the development and use of the Arctic oil and gas resources will increase the processes of climate change. In effect, as the ice melts and as it becomes easier to access these resources, their utilization will probably create a cycle which creates more greenhouse gases thereby further increasing global temperatures. Yet there is little knowledge about how such a relationship would develop.

This discussion has only focussed on the actions of the main Arctic states. It is becoming increasingly apparent that the Arctic is becoming an area of interest for non-Arctic states as well. In particular, Asian interests in the region are growing. South Korean shipyards are increasingly entering the market to build ice-capable vessels. The Japanese are investing heavily in the study of Arctic gas hydrates off the coast of Canada as an energy source. The Chinese are also increasing their investment in polar research and have begun to deploy their large Arctic research vessel (Xue Long) to the Arctic. Japan, South Korea and China are also attempting to join the Arctic Council as observers,¹² which is perhaps the most explicit indication of their intent to become Arctic players.

PART III: THE CHANGING ARCTIC

The title of this paper refers to the Arctic's state of transformation. This language choice was intentionally selected in order to highlight the coming challenges that Canada faces in its Arctic region. The Arctic is fundamentally changing. At least three unique and extremely-powerful forces are leading to this transformation:

¹² "Japan Seeks Role in Arctic Council," *The Daily Yomiuri* (Tokyo) April 20, 2009.

climate change, resource development and geopolitical transformation. Any one of these factors by itself would create a serious transformation in the Arctic. The reality that three such forces are at work only underlines the magnitude of the changes that are now occurring in the Canadian Arctic.

Climate Change

Climate change is warming the Arctic at a considerable rate, which has garnered the attention of the Arctic states' leaders, their public and the world. It was only as recently as the 1990s that few even knew of climate change, let alone understood its magnitude. Amongst the many changes taking place, the most important impact of climate change in the Arctic is the melting of sea ice, which is receding at an accelerated and unprecedented rate.

The melting sea ice means that Canadian Arctic waters will be more open and therefore more accessible. This accessibility has led most observers to predict the entry of an increasing array of interests into the region. The Canadian government's ability to control what happens in its Arctic region will be tested with this entry of newcomers into the Canadian Arctic who will seek to exploit and benefit from a more accessible Arctic. Thus the melting sea ice will be at the root of the challenges to Canadian Arctic sovereignty and security.

Debates about the expected impact of climate change are considerable. Scientists studying the issue have been continually surprised by the rapid rate of change. The 2004 Arctic Climate Impact Assessment (ACIA), which utilized the research of the world's leading scientists, predicted that the polar ice cap would be completely melted by the end of the 21st century.¹³ In 2009, only five years later, the most common prediction was that this would occur by 2030. Nevertheless, some analysts even consider this prediction too conservative. Reporting his most recent finding in December 2008, David Barber, one of Canada's leading Arctic experts, predicted that the Canadian Arctic will be ice-free for most of its summer by 2015.¹⁴

Regardless of when the ice will melt, two important elements must be stressed. First the processes that are leading to the melt are speeding up. The recognition that while the processes are not fully understood, they are becoming more pronounced underlies the information that is emerging from the current studies. This suggests that the physical nature of the Arctic will be transforming even more rapidly than previously thought.

So what is happening? The ACIA study remains the definitive work on the subject, although it will soon require an update. This report had been commissioned by the Arctic's multilateral body, the Arctic Council, to determine what was happening when it became clear that processes not yet understood were redesigning the physical nature of the entire Arctic region. In 2000, the Arctic Council directed two of its working groups, the Arctic Monitoring and Assessment Programme (AMAP), Conservation of Arctic Flora and Fauna (CAFF) along with the International Arctic Science Committee (IASC) to undertake an extensive and exhaustive study of the impact of climate change on the Arctic. After four years, the ACIA released its findings, which were both troubling and overwhelming. Perhaps the most important finding of the ACIA is the magnitude of the problem. Their assessment brought together the world's leading experts who produced

¹³ Arctic Climate Impact Assessment (ACIA), *Impacts of a Warming Arctic: Arctic Climate Impact Assessment* (Cambridge: Cambridge University Press, 2004), Accessed June 5, 2009, <http://www.acia.uaf.edu/>

¹⁴ Rheal Seguin, "Scientists predict seasonal ice-free by 2015," *Globe and Mail*, December 12, 2008.

a peer-reviewed, scientific document and a more concise summary document. The key findings for the Arctic marine environment are:¹⁵

- 1) The Arctic climate is now warming rapidly and greater changes are projected. Annual average Arctic temperatures have increased at almost twice the rate of the rest of the world over the past few decades; increasing precipitation, shorter and warmer winters and substantial decreases in ice and snow cover will likely persist for centuries; and unexpected and larger shifts and fluctuations are possible.
- 2) Arctic warming and its consequences have worldwide implications. These include the melting of highly reflective snow and ice cover that will in turn lead to a greater warming of the planet; an increase in glacial melt and river runoff that will result in rising sea levels and the possible slowing of the world's ocean current circulation system.
- 3) Animal species' diversities, ranges and distribution will change. Reduction in sea ice will drastically shrink marine habitats for species such as polar bears, ice-habiting seals and some seabirds; species' ranges will shift northward bringing new species to the Arctic and limiting some already present; some marine fisheries will become more productive, while freshwater fisheries are likely to decline.
- 4) Many coastal communities and facilities face increasing exposure to storms. Severe coastal erosion will continue to be a problem as rising sea ice and reduction of sea ice allow for higher waves and storm surges to reach the shore; some coastlines will face increased permafrost melt adding to their vulnerability; risk of flooding in coastal wetlands can increase and some communities are already facing significant threats to the coastline.
- 5) Reduced sea ice is very likely to increase marine transport and access to resources. Continued reduction of sea ice is likely to lengthen the navigation season and increase marine access to the Arctic's marine resources; reduced sea ice is likely to increase offshore oil and gas extraction projects; and sovereignty, security and safety issues, as well as social, cultural and environmental concerns, are likely to arise as marine access increases.
- 6) Thawing ground will disrupt transportation building and other infrastructure. Transportation and industry on land including oil and gas extraction will increasingly be disrupted as the periods during which ice roads and tundra are frozen sufficiently to allow travel begins to freeze later and melt earlier in the year. This could mean a greater shift to marine transport; as frozen ground thaws, many buildings, roads and so forth, will become destabilized causing a need for substantial maintenance and rebuilding and permafrost degradation will impact natural ecosystems through the collapsing of ground surface, draining of lakes, wetland development and toppling of trees.
- 7) Indigenous communities are facing major economic and cultural impacts. Many indigenous peoples depend on food sources that are now threatened; and changes in species' ranges and availability, access to these species and perceived and real changes in travel safety because of changing ice and weather conditions will create serious challenges to human health and food security.

¹⁵ ACIA, *Impacts*, 1011.

- 8) Elevated ultraviolet (UV) radiation levels will affect people, plants and animals. The stratospheric ozone layer over the Arctic is not expected to improve for at least a few decades, largely due to the effect of greenhouse gases on stratospheric temperatures; the current generation of Arctic young people is likely to receive a lifetime dose of UV that is 30 percent higher than any prior generation; elevated UV can disrupt photosynthesis in plants and have detrimental effects on the early life stages of fish and amphibians; and risks to some Arctic ecosystems are likely as the largest increases in UV exposure occur in spring when sensitive species are most vulnerable.
- 9) Multiple influences interact to cause impacts to people and ecosystems. Changes in climate are occurring in the context of many other stresses including chemical pollution, over-fishing, land use changes, habitat fragmentation, human population increases and economic changes; these multiple stresses can combine to amplify impacts on human and ecosystem health and well-being. In many cases the total impact is greater than the sum of its parts.

This study had its limitations; one was its scale. The report made assessments of the entire Arctic, as opposed to assessing specific areas of the Arctic. It subsequently became apparent that the changes occurring in the Arctic vary depending on local conditions. Thus the original observation that the ice is receding has now been tempered by the recognition that it recedes at different rates throughout the Arctic. Specifically, the Russian side of the Arctic has experienced the greatest rate of ice decline, followed by the central Arctic and then the Northwest Passage.¹⁶ The Passage's slower melting rate is due to a series of geo-physical forces that include prevailing ocean currents, the location of the many islands of the Arctic archipelago and so forth. However, while it may lag behind the other regions, it is still melting.

Historically, the extreme climate and extensive ice cover prevented the outside world from entering the Canadian Arctic. This is now changing as the Arctic is melting. With a diminishing ice cover, the Arctic is becoming more accessible which in turn, will make it easier for the world to come. But just because accessibility is eased, there is not necessarily a reason to arrive. The outside world needs a reason to take advantage of the improved accessibility. The second major set of forces that cause change in the Arctic serve to provide the world with its reason for coming to the Arctic: resource development.

Resource Development

Notwithstanding the melting, the Arctic will remain a unique and dangerous place to operate in. Regardless of the warming climate, the Earth's tilt means that for significant periods of time, the Arctic will remain in darkness. This darkness alone complicates any activities that will take place in the region. Related to this is the reality that unless the overall temperature of the earth reaches levels in which more southern latitudes are literally baking, some ice will reform during the Arctic winters. So while the Arctic Ocean will be ice-free in the summer months it will never be completely ice-free year-round, as is the case with the other oceans.

So if that is the case why come north? The reason is that melting sea ice allows for greater accessibility to and exploitation of the Arctic's marine resources. In terms of oil and gas, the Arctic is estimated to contain approximately 25 percent of the world's remaining undiscovered oil and gas deposits. A study

¹⁶ Anne Casselman, "Will the Opening of the Northwest Passage Transform Global Shipping Anytime soon?" *Scientific American*, November 10, 2008. Accessed June 5, 2009, <http://www.sciam.com/article.cfm?id=opening-of-northwest-passage>.

by the US Geological Survey is the most commonly cited study and it suggests that 13 percent of oil and 30 percent of natural gas remains in the Arctic. If correct, the Arctic is the world's last major source of oil and gas.¹⁷

The potential riches of the Arctic continue substantially beyond oil and gas. There is growing recognition that another source of energy, known as gas hydrates, is found in Arctic waters. Located in either very deep or very cold (or both) ocean waters, scientists have discovered a jelly-like substance that is actually a source of gas. These gas hydrates appear to be created as the result of the solidification of natural gas as it rises through the ocean bottom. While the quantity of this gas in the Arctic is tentative at this time, it seems very promising. The Japanese fund research in both Canada and the United States, exploring the use of gas hydrates as a future energy source.¹⁸ Currently there are no economical means of recovering these resources and bringing them to the surface for exploitation, but work is progressing. Gas hydrates may prove to be an important energy source in the future and, therefore, a potentially exploitable Arctic resource once the necessary technologies are developed.

When discussing the development of Arctic resources in Canada in 2009, it is clear that its defining features are vast and potentially tempered by uncertainty. It is becoming increasingly apparent that the Arctic is indeed a treasure trove of resources. However until the beginning of the 2000s, the market price of most of these resources did not make their exploitation economically viable. But, at the beginning of this decade, there was both an ongoing rise in most commodity prices as well as improvements in the technology that would allow for their extraction.

The validity of the estimates of the resource deposits must be determined through actual drilling, but North American oil and gas companies have already accepted the potential of these resources. In 2007, Exxon and several partners made a successful bid of over \$585 million for a five year exploration program in the MacKenzie Delta and Beaufort Sea.¹⁹ As much as this figure astonished observers, British Petroleum (BP) shocked the industry the following year when it made a successful bid of \$1.2 billion, also for a five year exploration program in the same region.²⁰

Several land-based projects are also now underway. One of the largest deposits of iron ore has been discovered in Mary River on Baffin Island; plans are now in place to develop this site. By taking advantage of new technology in building ice-capable ships, it is anticipated that the product can be shipped during much of the year by ice-reinforced bulk carriers.²¹

On the other side of the Yukon-Alaska border, since 2007 Shell has attempted to begin a \$44 million exploration process. However, this process has been held up by a court challenge brought about by a coalition of community and environmental groups. In November 2008, the Ninth District Appeal Court ruled that the American federal government has not required strong enough environmental standards. This ruling meant that Shell could not proceed. However in a surprise move, the Court subsequently voided its decision.

¹⁸ *Scientific Results from the Mallik 2002 Gas Hydrate Production Research Well Program, MacKenzie Delta, Northwest Territories, Canada – Geological Survey of Canada Bulletin 585*, ed. S.R. Dallimore and T.S. Elliot (Ottawa: 2005).

¹⁹ Jeffrey Jones, "Update 2- Imperial, Exxon, Mobil win Beaufort Sea Acreage," *Reuters*, July 19, 2007. Accessed June 5, 2009, <http://www.reuters.com/article/companyNewsAndPR/idUSN1942038220070719>

²⁰ CBC, "Ottawa Awards BP \$1.2 Billion in Exploration Permits in Beaufort Sea," *CBC News*, July 8, 2008. Accessed June 5, 2009, <http://www.cbc.ca/canada/north/story/2008/06/09/beaufort-leases.html>.

²¹ Fox Business, "Baffinland Provides Update on Mary Rivers Project," *Yours Metals News*, December 5, 2008. Accessed June 5, 2009, http://www.yourmetalsnews.com/baffinland+provides+update+on+mary+river+project_17718.html.

It is not clear what will happen next. Shell has stated that it intends to proceed with its offshore exploration program in the summer of 2010.²²

The economic collapse is a factor that may potentially affect Arctic resource exploration because it affects the entire global economic system. At the time that Shell's exploration projects were being developed, the price of oil had been on a continuous increase eventually peaking at about \$147 per barrel. The expectation at the time was that the price of oil would continue to increase. Although it has not been publicly confirmed, many analysts suggest that the price of oil must be at least \$80 per barrel in order for Arctic oil to be profitable.²³ The sudden reversal of fortune has seen the price drop to \$40 per barrel and only recently begin to once again rise to \$70 per barrel by the summer of 2009. Oil and gas companies have made no public statements as to whether the current price of oil will affect their exploration efforts in the North American Arctic. Statements that the Russians may slow the development of their northern resources have yet to be confirmed.

Even if the Arctic projects are put on hold in the foreseeable future, there is little doubt that they will eventually go forward. Given China's growth in the last decade and the growth that India is expected to experience in the coming years, these states' demand for oil alone will likely aid in the recovery of the price of oil. When that occurs, the north will be one of the main areas of new oil resource exploration and development. Thus the question is not if oil and gas will be developed in the Arctic, but when.

New technologies for resource development further facilitate the changes in the Arctic. Non-Arctic states have entered into the region and assumed leadership roles in advancing new technologies for use in the Arctic. The best known example is the construction of ice-capable commercial vessels. Historically, Finnish and Russian companies were the leaders in ship design and construction of ice-capable vessels; however, they are now increasingly challenged by South Korean companies that have invested heavily in building ice-capable vessels.

Samsung Heavy Industry is building numerous medium-sized oil tankers weighing between 70,000-120,000 tons, which are purchased for use in the northern waters of Russia. In addition to hulls designed to operate in up to 1.5 metres thick ice, these tankers will have a new propulsion system known as Azipod, which will enable them to operate in both ice-covered waters and ice-free seas. The South Koreans are putting a propeller on ice-strengthened hulls that can rotate 360 degrees. This rotation allows Samsung to place a regular bow on the front of the vessel and an ice-breaking bow on the stern (back) of the vessel. In open-water conditions these vessels operate as a normal tanker would. But when they are in ice-covered waters, they turn their propeller around and go "backwards." This configuration of the propeller enables the ship to break the ice as it moves forward. Normally ships that are designed to operate in ice possess characteristics that make operating in ice-free waters problematic. Among other factors, the design of the bow needed to break through ice does not allow the ship to operate well in high waves. Traditionally ships designed for operation in ice do not handle well on the open seas, while ships that are designed for the open seas cannot operate in ice. Thus these new ships designed by the South Koreans to operate in both

²² Tim Bradner, "Shell plans Alaska drilling program despite court ruling," *Energy Current*. April 27, 2009. Accessed June 5, 2009, <http://royaldutchshellplc.com/2009/04/27/shell-plans-alaska-drilling-program-despite-court-ruling/>.

²³ It is very hard to get officials to go on the record on this. Breakeven points for non-Arctic resources seem to be between \$25-40 for Middle Eastern producers, so an \$80 cost would not seem to be unreasonable. See: Richard Shaw, "Oil Predictions and Break-Even Prices," *Seeking Alpha*. December 25, 2007. Accessed June 5, 2009, <http://seekingalpha.com/article/58322-oil-price-predictions-and-break-even-prices>.

open water and ice-covered waters are ideal to carry oil from northern waters that are ice-covered to southern ports, where the oil can be transferred to other larger tankers or to pipelines. However it is also possible for the ship to sail to other more distant ports. One of the first voyages of these tankers carried a load of oil from a northern Russian field to Come by Chance, Newfoundland.²⁴

There are no plans to use these vessels in Canadian or American waters because no offshore fields are currently in production. A second issue is the fact that the North American side of the Arctic has thicker ice and a higher percentage of multi-year ice. Samsung officials admit that their design works best in freshly formed (first-year ice). However, as the ice retreats and as production begins, it seems entirely possible that such vessels could be used on the North American side of the Arctic Ocean.

Tankers would give the industry added flexibility in meeting new market demand as they would provide Canadian producers with the opportunity to ship oil directly to Asian markets. But the use of these vessels could pose problems for Canada. Canada could face an intensification of the dispute about control over the Northwest Passage if the Americans were to use these tankers to ship oil from their side of the Arctic to European or eastern American markets. If the Americans were to use such vessels it is unlikely that they would ask the Canadian government for permission to transit the passage since they insist that the passage is an international strait. On the other hand, Canada would not face this issue if the terminals for providing the oil were on the Canadian side of the border as Canada would have sovereign control over any resource development on this side.

The current ship construction is of ice-capable oil tankers, but not of natural gas carriers. However, several South Korean companies are developing plans to build natural gas carriers, but this is still in the planning stage. Given their ability to design and build an ice-capable oil tanker, it is likely that the South Koreans will be equally successful in building a gas carrier. The problem is liquefying natural gas in order to transport it. The Russians are also investigating this problem and have considered the construction of a nuclear-powered floating terminal that could be used to liquefy the gas on site. If successful, it is unclear whether Canada will consider the use of similar technology. In Canada the ongoing resistance to nuclear power may lead to reluctance to adopt this technology. In this situation the gas would probably have to be shipped by pipeline to southern markets in which case the Mackenzie pipeline may be needed. But if Canada is willing to invest in this nuclear-powered technology, then the McKenzie pipeline might not be needed as the gas from offshore sites could be loaded directly onboard the new ice-capable gas carriers.

But it is necessary to remember that all of this currently remains speculative due to the uncertainty that surrounds almost all aspects of northern resource development. The quantity of oil and gas in the Canadian Arctic is unknown; the technology to exploit these resources is in a state of rapid development and which resources are useable and when they will even be used is further unknown. Resource exploration and development is further complicated by sliding commodity prices which demonstrates that it is impossible to expect regularity in the market.

Where does this leave the issue of Canadian Arctic sovereignty and security? The pursuit of resources will be the incentive for outside interests to enter the Canadian Arctic. However, international law gives Canada the sovereign right to control the development of these resources. UNCLOS gives coastal states the sovereign right to control the resources within 200 miles of their coast line. Thus the Canadian government

²⁴ Andrew Mayeda and Randy Boswell, "Arctic Ambitions – Canada's Stake in the North: Part 3: the Rush for Oil," *Canada.com*, August 17, 2008. Accessed June 5, 2009, <http://www2.canada.com/topics/news/features/arcticambitions/story.html?id=994c07a9-7d79-4a35-927a-f78d485df522>.

has the right to control all shipping that comes into Canadian Arctic waters for the purposes of resources, if it chooses to do so. The challenge remains controlling vessels that want to use Canadian Arctic waters as a passageway. If Canada loses its dispute with the Americans and Europeans as to the international legal status of the Passage, then they will not be able to unilaterally control those vessels. On the other hand, if the Canadian position that these waters are internal Canadian waters perseveres, then it will also be able to control that shipping.

As the Arctic's resources are developed, Canada needs to continue strengthening its ability to enforce its rules in the Arctic. Canada has the right to control all economic activity on its Arctic lands and in its Arctic Ocean, with the exception of Arctic shipping to a distance of 200 nautical miles from its coastline. But having the right and ability to do so are two separate things. In order for Canada to actually control economic activity in its Arctic, the Canadian government must act to improve both its ability to know what is happening in the north as well as its ability to control any activity that takes place there.

While successive Canadian governments have recognized the necessity to protect Canadian security and sovereignty in the region, they generally have been unwilling to allocate the funds to develop the means to acquire the necessary assets.²⁵ At the end of the Second World War, the Canadian government recognized the importance of the Arctic to its security. German forces had set up secret weather stations in northern regions (including Northern Labrador) to provide weather information for their submarine forces. The Japanese were perceived to be a threat to Alaska and the Yukon and even to the Canadian west coast. However, it was only when the Cold War erupted that the Canadian government became very concerned about its Arctic security. This concern became one of the government's most critical concerns as the Soviets developed nuclear-tipped weapon systems that crossed the Arctic region to hit North American targets. At the same time the Canadian government became equally concerned about American efforts to improve North American Arctic security on Canadian territory. However, when faced with the alternative of paying the full cost of the system to defend itself or accept American assistance and risk American intrusion in the Canadian north, the government decided to accept American aid. As it turned out, once the various radar systems such as the Distant Early Warning (DEW) Line were built, the Americans were content to turn over the new infrastructure to Canada's control even though they had paid for the bulk of its construction.²⁶

In 1969, American action reignited Canadian Arctic sovereignty concerns. Following the discovery of a very large oil field in northern Alaska in 1968, the Americans considered the possibility of shipping the oil to southern American markets via the Northwest Passage.²⁷ The Americans argued that the passage was an international strait and therefore they did not need Canadian permission to go through it. The Canadian position was that the waters were internal waters and therefore under Canadian control thus requiring Canadian permission. In the name of good relations with the United States, the Canadian government granted "permission" to the American voyages even though it was not sought and provided icebreaker assistance. As a result of the American voyage, the Trudeau government passed the *Arctic Waters Pollution Prevention Act* and embarked upon an international campaign to gain acceptance for its position regarding the legal status of the Northwest Passage.²⁸ However, little effort was made to improve the

²⁵ For a more complete history of the development of Canadian policy see: Rob Huebert, "Canada and the Changing International Arctic: At the Crossroads of Cooperation and Conflict" in *Northern Exposure: Peoples, Powers and Prospects for Canada's North*, ed. Frances Abele et al. (Montreal: IRPP, 2009). Accessed June 5, 2009, <http://www.irpp.org/books/archive/AOTS4/huebert.pdf>.

²⁶ Grant Shelagh, *Sovereignty or Security: Government Policy in the Canadian North 1936-1950* (Vancouver: UBC Press, 1988).

²⁷ Edgar Dosman, "The Northern Sovereignty Crisis 1968-70" in *The Arctic in Question*, ed. Edgar Dosman (Oxford University Press, Toronto: 1976).

²⁸ Don McRae, "The Negotiation of Article 234" in *Politics of the Northwest Passage*, ed. Franklyn Griffiths (McGill-Queen's University Press: Kingston and Montreal: 1987).

Canadian government's ability to act in the north because the immediate threat from the Americans ended when they decided to build a pipeline running north to south across Alaska instead of shipping it by tanker. Once this threat ceased, there seemed little likelihood that any other non-Canadian would come into the Canadian north.

The next sovereignty dispute occurred in 1985 when an American icebreaker transited the Northwest Passage without asking for Canadian permission,²⁹ creating a substantial crisis in Canadian-American Arctic relations. The American purpose for the voyage was not to test Canadian claims but to meet a NATO requirement to provide an icebreaker escort to resupply a military base in Thule, Greenland. When the American icebreaker that normally undertook this resupply broke down, the United States asked Canada if its forces could take on this mission on short notice, but this proved impossible. The American icebreaker, *Polar Sea*, which was based on the west coast, was sent through the Panama Canal to Thule. It then needed to return to Alaska as quickly as possible. In order to do so, it sailed through the Northwest Passage on its return voyage. Prior to the voyage an interim agreement had been reached to allow the voyage to occur but the agreement fell through after editorials were published about the forthcoming voyage.³⁰ In order to counter criticism that the Canadians were bowing to the Americans, the Canadian government cancelled the agreement. Nevertheless, the Canadian government granted permission to the Americans despite the fact that the Americans never sought Canadian permission in the first place. Once again following the crisis, the Mulroney government promised a wide range of actions to address Canada's weaknesses in the Arctic region. Ultimately, it implemented the promises that did not involve spending money. Canada successfully negotiated an agreement with the Americans for future icebreaker transits. Any future transit by American icebreakers would be preceded by a request for consent, which was expected to be given.³¹ Canada also established straight baselines around its Arctic islands to clearly mark its territory. However, it did not build a new Polar 8 Class Icebreaker that had been promised, nor did it provide its armed forces with any new Arctic capabilities such as the proposed nuclear-powered submarines.³²

As the Cold War ended, both the Mulroney government and the Chrétien government saw an opportunity to improve circumpolar relations.³³ In a 1989 speech in Leningrad, Mulroney suggested that the time had come to create a multilateral body that brought together the Arctic states to improve cooperation between former enemies. Neither the Americans nor the Soviets accepted the initial effort to create this council so it went nowhere. Instead, Canada joined forces with Finland to create the Arctic Environmental Protection Strategy (AEPS), which was an agreement to examine the emerging circumpolar environmental problems discovered by scientists. While less ambitious than the plans for the Council, Canadian officials viewed it as offering the best means of improving cooperation. However, Canada never lost sight of its goal of creating an Arctic Council and was eventually successful in transforming the AEPS into the Arctic Council in 1996.

While the Americans remained unconvinced about the Council, Canadian efforts eventually persuaded them to join this initiative but only reluctantly. The Canadian effort to successfully involve the Americans came with the cost that the Americans were determined to keep the Council as weak as possible. Canadian officials were unable to give the Arctic Council the powers they believed it needed to be an effective forum for the circumpolar world.

²⁹ Rob Huebert, "Polar Vision or Tunnel Vision: The Making of Canadian Arctic Waters Policy," *Marine Policy* 19 no.4 (July 1995).

³⁰ Of note, it was the efforts of CIC Senior Research Fellow, Franklyn Griffiths, whose op-eds in *The Globe and Mail* particularly galvanized public and government attention.

³¹ Christopher Kirkey, "Smoothing Troubled Waters: The 1988 Canada-United States Arctic Co-operation Agreement," *International Journal* 50 no.2 (1995).

³² Peter Haydon, "The Strategic Importance of the Arctic: Understanding the Military Issues," *Canadian Defence Quarterly* (Spring 1988).

³³ Rob Huebert, "New Directions in Circumpolar Cooperation: Canada, the Arctic Environmental Protection Strategy and the Arctic Council," *Canadian Foreign Policy* 5 no.2 (Winter 1998).

With the end of the Cold War, combined with American resistance to the creation and strengthening of multilateral Arctic bodies, the Canadian government allowed existing Canadian physical Arctic capabilities to further atrophy and made little effort to pursue diplomatic initiatives. It was not until the end of the 1990s that the Canadian government began to take steps to arrest this inaction. This action began with the Martin government, but the Harper government has increasingly recognized the significance of maintaining a strong presence in the Arctic and has vigorously begun to improve Canada's northern abilities.

With respect to the issue of knowing who is in the Arctic and what is happening there, the current Harper government is improving Canada's northern surveillance by increasing its expenditures on research. Northern Watch is a research program dedicated to developing a Canadian-built and designed system that will provide surveillance of the subsurface, surface and airspace of the Arctic. It is not yet ready for operational status and is still being developed. It is not clear when the government will make a decision on funding an operational version of the system.

Canadian scientists have also developed a more advanced program of satellite imagery systems designed to provide space-based surveillance of surface vessels in the Arctic. The first satellite, RadarSat I, had been designed primarily as an ice-detection observation system. However, it soon became apparent that it could also be used to "see" large vessels. The recently launched RadarSat II satellite has better resolution and is expected to be able to detect smaller vessels. At the lower end of the technology spectrum, both the Martin and the Harper governments increased the size and the training of the Rangers units based in the north. The Rangers are a northern militia unit whose primary task is to provide surveillance in the north at the local level. The Rangers are volunteers comprised primarily of indigenous peoples, and are particularly skilled observers who can live off the land. All of these initiatives will enable the Canadian government to know who is in its Arctic region and what they are doing, which is the first step in controlling activity in the Canadian north.

Once the Canadian government knows who is there and what is happening there, they must have the ability to control those actors and their activity. To that end, both the Martin and the Harper governments recognized that increasing Canada's enforcement capability in the Arctic was necessary. Since 2002, both governments increased the number of military exercises in the north. At the same time, the Harper government made a series of promises to considerably expand Canada's northern capability, including: six to eight Arctic offshore patrol vessels that will be able to sail in first-year ice that is up to one metre thick; a replacement for the Coast Guard's largest and oldest icebreaker, the *Louis St. Laurent*; the construction of a deep-water replenishment site at Nanisivik; new replenishment vessels that will have the capability to operate in first-year ice for the navy; new long-range patrol aircraft to replace the Aurora (CF-140) and a training base in Resolute. If these promises are implemented, Canada will have significantly improved its ability to control activity in its Arctic. However, most of these commitments have not yet moved from promise to reality. There are now signs that the government is backtracking on some of its promises. The program to build the new replenishment vessels, for instance, has been postponed because domestic builders submitted bids that were too high for the government. It remains uncertain as to what will happen with this program. Likewise there is little discussion of when construction of the Arctic Offshore Patrol Vessel or ice-breaker will begin.

Canada needs to act on these programs. When commodity prices rebound and the ice continues to melt, more foreign nationals will come to the Canadian north to explore and develop Arctic marine resources. Canada will need to ensure that they know Canadian rules and laws and will follow them. In order for that to happen, the Canadian government must have the ability to control the activity of these foreign nationals.

Geopolitical Change

As if climate change and resource development were not enough forces for change, the geopolitical forces that have re-emerged after the end of the Cold War are literally redrawing the map of the Arctic. New international laws allow the Arctic nations to extend their control over the Arctic seabed. It is possible that almost all of the Arctic Ocean's seabed may come under the control of one of the Arctic states. At the same time most Arctic nations are beginning to strengthen the ability of their armed forces and coast guards to operate in the north. Thirdly, non-Arctic states have begun to show interest in Arctic operations. The net effect of these factors is a growing international recognition of the importance of the Arctic, concurrent with increasing international action in the region.

The media increasingly reports about a race for resources in the Arctic, with continuous references to efforts to "carve" up the Arctic. The reality is that there is no division of the Arctic – yet. Currently, the five Arctic states with coast lines on the Arctic Ocean are about to extend their control of the soil and subsoil of the seabeds extending from their continental shelf. At the heart of this extension is the right to the minerals, oil and gas that may be found on and in this extension. This extension may give Canada one of the largest new territories in the Arctic.

This extension is occurring under the terms of UNCLOS. This Convention is one of the most comprehensive and complex international agreements that has received almost universal agreement. Currently 157 states have either ratified or acceded to the treaty. The negotiations began in 1973 and concluded in 1982. It required 60 ratifications before it came into force, which occurred in 1996. UNCLOS provided the means by which existing customary international law was codified. It also introduced new means of ocean governance. At the centre of these efforts is the creation of new zones of control over ocean space. Prior to the Convention, international law only recognized the right of a state to extend control of its adjacent ocean space to a distance of 12 nautical miles. As discussed earlier in this paper, UNCLOS has created different zones of control. Specifically the Convention gives coastal states control of resources up to a distance of 200 nautical miles in an area called the EEZ.

Under the terms of Article 76, if a state also sits on an extension of the continental shelf that goes beyond 200 nautical miles they can also claim control of the resources on the soil and subsoil to an additional distance of 150 nautical miles, and in certain instances even beyond this. Unlike the EEZ which all coastal states can claim, states must prove that they have an extended continental shelf. They have ten years to engage in the research necessary to prove this. At that point they must submit their findings to an international body named the Commission on Limits of the Continental Shelf (CLCS). This body reviews and passes judgment on the technical and scientific merits of the country's submission. If the CLCS accepts the submission and if the states neighbours have submitted overlapping claims, then the dispute must be resolved at that stage. The Convention provides that all such disputes must be resolved peacefully and also provides a variety of means for achieving resolution. Article 280 of Section XV of the Convention allows the state parties to a dispute to use "any peaceful means of their own choice," to resolve a dispute caused by the Convention. The overlapping claims thus created by Article 76 will be such a dispute.

The parties to such a dispute can also use Article 284 of Section XV of the Convention to use a conciliation process established within Annex V of the Convention. If either of these processes are not acceptable, then Article 287 requires the parties to the dispute to select from four options: 1(a) the International Tribunal for the Law of the Sea; 1(b) the International Court of Justice; 1(c) an arbitral tribunal constituted in accordance with Annex VII of the Convention or 1(d) a special arbitral tribunal constituted under Annex VIII of the Convention. If the parties are not able to agree to the specific means of settlement then the fourth means is to be employed. The five Arctic states that are making continental

shelf claims, which were agreed upon in June 2008 in a meeting held in Ilulissat Greenland, will have to resolve any differences peacefully and through the mechanisms established by the UNCLOS.³⁴ However, as will be discussed in following section, the United States is not yet a party to the Convention so it remains uncertain how the Americans will be able to use the mechanisms created by the Convention. It is hoped that they will soon accede to the treaty, but if they do not it is not clear what can be done to include their participation.

Almost all of the the entire Arctic Ocean may be an extension of the continental shelf of both North America and the Eurasian land mass. Canada, Denmark (for Greenland), Russia and the United States are now all engaged in research programs to determine the extent of their continental shelf. Russia submitted a claim in 2001³⁵ and upon completing its review of this claim the CLCS asked the Russians to provide more data to support their claim.

The four Arctic nations that can claim an extended continental shelf in the Arctic Ocean – Russia, Denmark (for Greenland), the United States and Canada – are clearly taking this process very seriously given their current level of effort. The Russians ratified the Convention on March 12, 1997, the Danes on November 16, 2003 and the Canadians on November 7, 2003. The Norwegians ratified the Convention on June 24, 1996, and also claim a northern extended continental shelf, albeit further south than the other four.³⁶ Norway has already submitted its claim to the CLCS.³⁷

The United States has neither signed nor ratified the treaty. Successive presidents since George H. W. Bush have attempted to accede to the treaty but have been prevented by a small minority of Republican senators. The American constitutional system requires all international treaties to be passed by a two-thirds Senate majority. Since the early 1990s this minority of Republican senators has been able to consolidate over 33 senators who have refused to accede to UNCLOS. Their primary motivation is an ideologically based opposition to the United Nations. However, with the recent American election, and the defeat and retirement of some of the senators in question, the anticipation is that President Obama will eventually achieve success. The US has recognized the importance of being party to the treaty to protect its interest in the north. In anticipation of their accession they have begun mapping their extended continental shelf. They conducted an expedition with Canada in the Beaufort Sea in 2008 and plan to continue mapping its continental shelf in 2009.

Following its ratification of UNCLOS Canada seriously began to map its continental shelf. The 2004 budget allocated \$69 million for the mapping of both the Arctic and the Atlantic seabed, with the bulk of the funds expected to be spent in the north. The 2008 budget provided an additional \$20 million. This investment has enabled Canadian scientists to carry on with a robust agenda that should be completed by 2010. This will give Canada the necessary time to prepare its submission to the CLCS.

³⁴ "The Ilulissat Declaration." Arctic Ocean Conference. Ilulissat, Greenland, May 27-29 2008. Accessed June 5, 2009, http://www.oceanlaw.org/downloads/arctic/Ilulissat_Declaration.pdf.

³⁵ UN, Oceans and Law of the Sea, Division for Ocean Affairs and Law of the Sea, "Commission on the Limits of the Continental Shelf (CLCS) Outer limits of the continental shelf beyond 200 nautical miles from the baselines: Submissions to the Commission: Submission by the Russian Federation," November 18, 2008. Accessed June 5, 2009, http://www.un.org/Depts/los/clcs_new/submissions_files/submission_rus.htm.

³⁶ UN Oceans and Law of the Sea, Division for Ocean Affairs and Law of the Sea, "Chronological lists of ratifications of, accessions and successions to the Convention and the related Agreements as at 31 December 2008," Updated December 31, 2008, http://www.un.org/Depts/los/reference_files/chronological_lists_of_ratifications.htm.

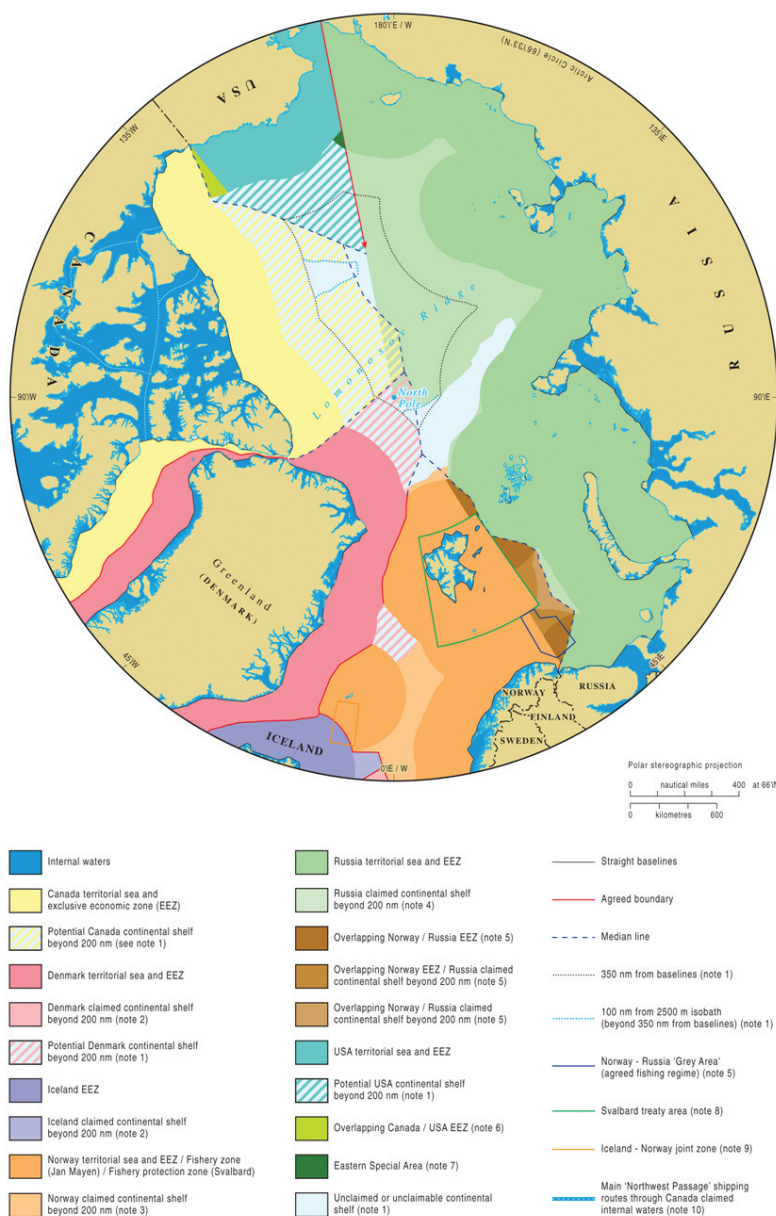
³⁷ "Continental Shelf Submission of Norway in respect of areas in the Arctic Ocean, the Barents Sea and the Norwegian Sea Executive Summary," 2006. Accessed June 5, 2009, http://www.un.org/depts/los/clcs_new/submissions_files/nor06/nor_exec_sum.pdf; and United Nations, Oceans and the Law of the Sea, *Report of the Secretary General*, 62nd session UN Doc A/62/67/Add.1. August 31, 2007, paras. 48-51.



Map 1: The Coming Division of the Arctic Ocean



Maritime jurisdiction and boundaries in the Arctic region



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³⁸ International Boundaries Research Unit, Durham University, Accessed June 22, 2009, <http://www.dur.ac.uk/ibru/resources/arctic>.

The media has focussed on the potential disputes that may develop from any overlapping claims. Until all of the states have submitted their claims, it is impossible to know whether any disputes will arise or if they do how serious they will be. Currently, Canada, the United States, Denmark and Norway have already issued diplomatic demarches against the 2001 Russian submission. After submitting their claim in 2001, the Russians were advised by the CLCS to further develop the science behind their claim, so it is possible that a revised Russian claim may not be challenged. But this would require the Russians to reduce their claimed area. This seems unlikely.

The Russians have responded to Norway's claim of an extended continental shelf in somewhat aggressive terms. In the summer of 2008, the Russian Navy resumed surface naval patrols. Specifically, two Russian warships sailed into the region that Norway has claimed around Spitsbergen Island.³⁹ The Russians and the Norwegians have a longstanding dispute about the island, which is undoubtedly being intensified by Norway's claim to extend its continental shelf. Under international law, the Russians have the right to sail warships into the EEZ and over the continental shelf. So by sailing into the disputed region they did not break international law. But it is hard to avoid the conclusion that the Russians were sending a message to the Norwegians by sailing into the disputed area.

This is not the only action that the Russians have taken to support their claim. Using a mini-submarine, they dropped the Russian flag at the North Pole in summer 2007. The other Arctic states widely dismissed this as a meaningless act. Then Canadian Minister of Foreign Affairs, Peter MacKay stated, "[t]his isn't the 15th century. You can't go around the world and just plant flags to claim territory."⁴⁰ Yet questions remain as to why the Russians would take such potent symbolic action.

The Russians are attempting to justify their claim that the North Pole should be the delimitation point dividing their claim from Canada and Denmark (and possibly the United States). Their initial submission to the CLCS in 2001 shows that they intend to claim up to the North Pole. While such an approach appears logical on a map, it has no basis in international law. The Russian effort is based on the sector theory. This theory was first put forward by Canadian Senator Poirier in 1907 as a means of extending Canadian Arctic claims. Poirier suggested that each of the states on the Arctic Ocean should extend their boundaries northward until they meet at the North Pole. Such a suggestion was never supported by the Canadian government, or by international law. One of Canada's leading experts on international law in the Arctic, Donat Pharand, provided the definitive examination on the issue and came to the conclusion that such an approach is simply not valid.⁴¹ However, the Russians are attempting to revive it. The Soviets never repudiated the principle after considering it in the 1930s. If it was accepted, this approach would benefit the Russians.

Canada and Denmark claim that the Lomonosov Ridge connects to the North American/Greenland land mass. If it does, then they can make an extended claim similar to that of Russia. This means that they too can go to the North Pole. If this is the case, then Canada, Denmark and Russia can claim the entire Arctic Ocean as part of their extended continental shelf. In any other part of the globe the normal means of dividing such an overlapping claim would be to determine the equidistant point (the halfway mark) between the competing states. This point would be determined by drawing a line between the most northern Canadian, Danish and Russian land points and then determining where the halfway mark of this line is. It

³⁹ BarentsObserver, "Russia sends Naval vessels to Spitsbergen," July 15, 2007. Accessed June 5, 2009, <http://www.barentsobserver.com/russia-sends-navy-vessels-to-spitsbergen.4497720-58932.html>.

⁴⁰ Doug Struck, "Russia's Deep-Sea Flag-Planting at North Pole Strikes a Chill in Canada," *Washington Post*. August 7, 2007. Accessed June 5, 2009, <http://www.washingtonpost.com/wp-dyn/content/article/2007/08/06/AR2007080601369.html>.

⁴¹ Donat Pharand, *Canada's Arctic Waters in International Law* (Cambridge: Cambridge University Press, 1988).

is probable that this point is found somewhere on the Russian side of the North Pole. Thus the pole and its surrounding area would be either Danish or Canadian depending on the precise measuring of the ridge. The support this method gains on the Russian side can only be determined once all three states have made their submission to the CLCS.

The question is whether or not all of this matters. Little examination has been undertaken of the potential location of oil and gas at the highest latitudes. The Russians have only begun exploratory drilling in this region.⁴² They are also building nuclear-powered, ice-breaking drill ships, but these ships are not yet operational.⁴³ At this point no one really knows if the North Pole and its surrounding regions have any gas and oil resources. Even if such resources are found there the means of transporting the resources to southern markets are only now being developed. But as discussed previously, both climate change and technological development could soon make this possible.

Shortly, Canada may have to decide whether or not it will challenge Russia's claim. If it challenges this claim, this will be the first time that Canada engages in a territorial dispute with Russia since Russia and the United Kingdom resolved the land boundary between Alaska and the Yukon in 1825. On the one hand, at the meeting in Ilulissat, Greenland, the Russian government promised that all disputes arising over the Arctic continental shelf would be dealt with in a cooperative spirit and in a peaceful manner.⁴⁴ However, recent events point to an increasingly assertive (and possibly aggressive) Russia. Georgia was temporarily invaded and partially occupied by Russia over a territorial dispute. Ukraine had its gas supplies temporarily suspended as it battled with the Russians over a pricing contract. It is difficult to imagine a Canadian-Russian Arctic dispute escalating to the point of conflict, but it is easy to believe that Russia could be assertive in support of its claim.

Canadian officials need to be aware of the challenges of facing an assertive (and possibly aggressive) Russia should Canada challenge their extended continental shelf claim. The Russians have already demonstrated what such action would look like to many of its neighbours regarding the sales of natural gas. Both Poland and the Ukraine have faced Russian action that has even included threatened gas cut-offs. The Russian Special Arctic Representative to the President (also the same individual who planted the Russian flag on the seabed at the North Pole) has been interviewed saying that Canada talks a lot but does not do much in regards to the Arctic. In the same interview he suggested that while Russia has agreed to resolve any differences on a diplomatic basis, it would view any Canadian effort to encroach on its claim in very negative terms. As a result, Canada should expect a vigorous response from Russia if it decides to go beyond the pole and into what the Russians believe is theirs in making its claims. Thus Canadian officials should not shy away from the challenge but they should be prepared for Russia to adopt "hardball" policies.

The situation facing Canada and the United States is even more confounding. Canadian scientists have dedicated substantial effort to determine the extent of the continental shelf in the Beaufort Sea. Canada faces two problems once it submits its coordinates. First, Canada and the United States have a substantial boundary disagreement as to how to divide the territorial sea and the EEZ in the Beaufort Sea. The disagreement

⁴² Christoph Seidler, "Politicians Censor Report on Dangers of Arctic Drilling," *Spiegel Online International*. January 23, 2008. Accessed June 5, 2009, <http://www.spiegel.de/international/world/0,1518,530454-2,00.html>.

⁴³ Charles Digges, "Russia to drill Arctic oil with Nuclear Icebreaker," *Russian Icebreaker Fleet*. July 8, 2008. Accessed June 5, 2009, http://www.bellona.org/articles/articles_2007/sevmorput_drilling.

⁴⁴ "The Ilulissat Declaration." Arctic Ocean Conference. Ilulissat, Greenland, May 27-29 2008. Accessed June 5, 2009, http://www.ocean-law.org/downloads/arctic/Ilulissat_Declaration.pdf.

stems over the interpretation of the 1825 Treaty between Russia and the UK which divided the land territory of what is now Alaska from what is now the Yukon. The treaty provided for the drawing of land boundaries, but made no reference to maritime boundaries. As a result the Canadians and the Americans dispute how to draw the boundaries for their territorial sea and the EEZ in the Beaufort. The United States contends that the border needs to be drawn at a 90 degree angle to the coastline. The Canadian position is that the maritime boundary is an extension of the land boundary. This disagreement creates a triangle-shaped disputed zone of approximately 6,250 square nautical miles, which may contain substantial oil and gas resources.

This dispute could significantly impact the determination of the Canadian continental shelf in the western Arctic. The starting point of the continental shelf will probably be determined by the tip of the top point of the farthest extent of the EEZ. The disagreement over the boundary dividing the EEZ and territorial sea may lead to a problem in dividing the extended continental shelf.

Further complicating this situation is the fact that the US is not a party to UNCLOS. The Americans cannot formally submit a claim for their continental shelf until they accede to the Convention. As mentioned earlier, the hope is that the American Senate will pass the Convention in the American Congress. Statements by Secretary of State Hillary Clinton suggest that this will be an important priority for the new administration.⁴⁵

Canada faces substantial uncertainty and challenges in determining the limits of its extended continental shelf. Such uncertainty makes it difficult for Canadian officials to prepare for their diplomatic campaign if there is an overlap with the other Arctic claimant states. Canadian efforts to determine its continental shelf may show that Canada's claims is limited geographically and does not extend into either the American, Russian or Danish areas. It is also possible that Canadian efforts may result in considerable overlap with its three Arctic neighbours. It is doubtful that this issue will be resolved anytime before 2020. Furthermore, the extent to which oil and gas resources are at the heart of the efforts is unknown. It may be that oil and gas resources within the extended continental shelf are limited. On the other hand if research bodies such as the US Geological Survey are correct, then Canada's effort to control these resources could result in substantial economic benefit for Canada.

Ultimately the issue is one of control. The entire purpose of Canada's effort to determine the coordinates of its Arctic continental shelf is to allow for its future control of the development and exploitation of any resources that may be found. This control will give Canada the right to set the rules as to how the resources are to be developed. It will also give Canada the right to decide if it even wants to develop the resources. It may be that a future Canadian government may decide that it is simply better to leave the resources in the ground, but this will be for Canadians to decide. Consequently, the issue of control of this territory is important.

The Northwest Passage

The other issue that has perplexed Canadians in the Arctic is the issue of sovereignty and the Northwest Passage. As discussed earlier, this has been one of the major irritants in Canada-US relations since 1969. The sovereignty issue in the context of the Northwest Passage is about control of international shipping in the Northwest Passage, nothing more and nothing less.

⁴⁵ Associated Foreign Press, "US 'committed' to ratifying Law of Sea Convention: Clinton." April 6 2009. Accessed June 5, 2009, <http://www.google.com/hostednews/afp/article/ALeqM5gB10PzPfiju89sybtB66q9Sq4f6A>.

The Canadian position is that the passage is internal Canadian waters, which gives Canada absolute control over all activities within it. The American position is that the passage is a strait used for international navigation. If the Canadian position is correct, then Canada has the right to control all elements of shipping in the passage, including the right of controlling who comes into the passage and who cannot. If the American position is correct then Canada only has the right to control international shipping in regards to international rules and standards, and has a limited ability to stop shipping.⁴⁶

A recent proliferation of articles by Canadian scholars suggests that it may, or even should, be possible to work out a deal with the United States on this issue. Some articles have suggested that it should be feasible to work out a deal similar to the St. Lawrence Seaway Agreement⁴⁷ in which both states arrange for the joint management of the passage.⁴⁸ Others have suggested that as long as Canada can show that it is serious about asserting proper control and therefore maintaining the security of the region, the Americans should respond by not overly asserting its position. In other words, American agreement not to challenge Canada would be exchanged for Canadian protection of the region.

In theory this approach makes sense. The support that this approach received from former US Ambassador to Canada Paul Cellucci suggested that it could be possible. However, such hopes were severely damaged in the last days of the George W. Bush administration amidst reports that the United States had been working on a national Arctic Policy since 2007. It seemed unlikely that it would be released as the term of the Bush administration came to an end. To the surprise of most observers, the Bush administration released its policy on January 9, 2009, literally less than two weeks before the January 20 Presidential Inauguration of Barack Obama. On a positive note, this National Security Presidential Directive reaffirmed in the strongest terms the American commitment to accede to the UNCLOS to ensure that American interests in the Arctic were protected. At the same time unfortunately, the Americans presented one of the most direct statements of their position on the Northwest Passage. The policy states:

Freedom of the seas is a top national priority. The Northwest Passage is a strait used for international navigation, and the Northern Sea Route includes straits used for international navigation; the regime of transit passage applies to passage through those straits. Preserving the rights and duties relating to navigation and overflight in the Arctic region supports our ability to exercise these rights throughout the world, including through strategic straits.⁴⁹

The enunciation of the American policy makes it difficult to see how any agreement can be reached unless the new Obama Administration moves to repeal or replace this Directive. But any such movement seems very unlikely. The policy Directive does not state anything that is new; it only puts the American position in very stark and direct terms. The Canadian position is further complicated by a policy statement issued by the EU in December 2008. In this statement, the EU was equally clear on its position on the Northwest Passage: while acknowledging the particular environmental needs of the waterways of the Arctic, the EU also affirms that the principle of freedom of navigation through the passage must be maintained.⁵⁰

⁴⁶ Donat Pharand, "The Arctic Waters and the Northwest Passage: a Final Revisit," *Ocean Development and International Law* 38 no1-2 (January 2007).

⁴⁷ Officially called the "Exchange of Notes Constituting an Agreement Between the United States of America and Canada Relating to the St. Lawrence Seaway Project."

⁴⁸ Brian Flemming, *Canada-US Relations in the Arctic: A Neighborly Proposal* (Calgary: Canadian Defence and Foreign Affairs Institute, December 2008).; Don McRae, "Arctic Sovereignty? What is at Stake," *Behind the Headlines* 64 (January 2007).

⁴⁹ The White House, *National Security Presidential Directive/NSPD 66 Homeland Security Presidential Directive/HSPD 25 – Arctic Region Policy*. January 9, 2009.

⁵⁰ Commission of the European Communities, *Communication from the Commission to the European Parliament and the Council. The European Union and the Arctic Region*. (Brussels, COM(2008) 763).

From a Canadian position it has always been difficult to understand both the American and European positions on the Passage. There have only been three instances where vessels transiting the passage have specifically not sought the Canadian government's permission to do so: the *Manhattan* in 1969 and 1970 and the *Polar Sea* in 1985. All other transits have occurred with the explicit agreement of Canadian authorities. Thus when both the US and the EU maintain that the Northwest Passage is a strait used for international navigation, they speak of a principle and not an existing reality.

What motivates the Americans and the Europeans to oppose the Canadians on this issue? Why do they seem so intent in denying Canada the right to control shipping in what are obviously unique waterways that have not been used for international shipping? Two reasons provide the answer as to why they persist in this position regardless of the damage it may do to their relationship with Canada: the fear of setting a precedent and the anticipation of a substantially larger number of transpolar shipping transits.

The Americans are not necessarily referencing only the Northwest Passage in their discussion about freedom of navigation in their Arctic policy paper. Rather, they are focussed on the Strait of Hormuz, the Strait of Gibraltar, the Malacca straits and many other straits used for international navigation worldwide. The Americans' primary concern is to ensure that they are not perceived as weakening their support of this principle of free passage through international straits. Thus their position has always been more about precedent and less about the Northwest Passage. The driving force behind the Americans' concern in these other straits is both strategic and economic. The Americans are determined to ensure that countries such as Iran do not acquire the right to limit or to restrict their navy's travel through such waters. The second and related objective of the US is to ensure that commercial traffic continues to have the right of unfettered passage. It is once again feared that a country such as Iran may stop oil tankers from entering or exiting the Strait of Hormuz to load off the coast of Saudi Arabia and Kuwait.

The EU has similar interests in ensuring that its naval and commercial vessels also retain navigational freedoms through these waters. But the EU also seems to be interested in the potential future use of the Arctic as a major shipping route. The Commission of the European Communities stated in a 2008 document that:

EU Member States have the world's largest merchant fleet and many of those ships use transoceanic routes. The melting of sea ice is progressively opening opportunities to navigate on routes through Arctic waters. This could considerably shorten trips from Europe to the Pacific, save energy, reduce emissions, promote trade and diminish pressure on the main trans-continental navigation channels.

It is in the EU's interest to explore and improve conditions for gradually introducing Arctic commercial navigation, while promoting stricter safety and environmental standards as well as avoiding detrimental effects.

By the same token, Member States and the Community should defend the principle of freedom of navigation and the right of innocent passage in the newly opened routes and areas.⁵¹

This commercial interest is the basis for the European Union's interest to protect its future Arctic shipping interests.

⁵¹ Commission of the European Communities, *Communication from the Commission to the European Parliament and the Council. The European Union and the Arctic Region*. (Brussels, COM(2008) 763): 9.

Where does this leave Canada? As discussed earlier, even with a melting Arctic, shipping in the region will still remain extremely challenging. The Canadian side of the Arctic will likely be the last region to experience the elimination of year-round ice. First-year ice will reform in the winter months limiting shipping to only those vessels that are ice-capable. The summer months will become increasingly ice-free but communication will remain difficult until additional communication and global positioning satellites are positioned in orbits that accommodate the high latitudes. It is difficult to expect that the northern straits will be similar to all other straits in terms of accessibility, navigation and communication. The great challenges to navigation well into this century will require different and more powerful forms of regulations and controls than any other waterway. It is clear that in these cases, Canada must retain some form of control.

In addition to the challenges that Canada faces in its attempts to retain control over the Northwest Passage, it is also necessary to consider the unintended results of the American and European position on the Northwest Passage. If the Passage becomes an international strait, the security of the North American Arctic will be compromised in terms of air security and maritime security. Under international law, an international strait also accords the right of overflight to all states. This means that the Russians, who recently reinstituted their long-range Tu-95 (Bear) bomber air patrols in the Arctic, would have the right to overfly the passage if it was eventually determined to be an international strait. This overflight ability allows them to come much farther into North American airspace than ever before. Currently relations are cordial between Canada, Russia and the United States. But if relations were to become more strained, a Russian effort to assert that right could escalate tensions.

The Northwest Passage as an international strait also means that Canada would not have the right to stop vessels that it may consider a security risk unless it could demonstrate that the vessel in question was breaking international rules and laws. The problem for the north is that given the widely unpopulated regions that exist, if a vessel was attempting to smuggle any illicit product into the country, it would only have to appear to be following international rules. Canada would not have the right to conduct mandatory inspections or to deny passage if it did not have solid evidence against the vessel.

In the future, countries that may not be friendly to the United States or Canada would also have the right of navigation without being required to ask the Canadian government for permission to transit. What would it mean for Canadian security to have a hostile navy sailing through the passage? Of course states such as Iran have to deal with hostile US and UK navies sailing through the Strait of Hormuz. Thus it is possible to argue that Canada will have to deal with a similar situation as Iran. But if that is the case, then Canada and the United States will have to ensure that if and when that happens they can provide security for the North American Arctic. Maintaining North American Arctic security is both simple and effective if Canada is understood to have control over the waterway. The same cannot be said if the classification of the Passage changes. Thus it is somewhat troublesome to note that the policy positions of Canada's allies will increase the threat to Canadian Arctic security.

Strategic Developments

This paper will now examine the new strategic realities that are taking shape in the Arctic. What do these developments mean for Canada? It is difficult to fully delineate this issue as these new realities are only now starting to take shape. Most of the Arctic states have seriously begun initiating new actions regarding their security requirements in the Arctic only in the past four years: no one really knows what the future will look like.

The Arctic states are beginning to rebuild their military capabilities, particularly with respect to the Arctic. The major driving force is the recognition that new economic development in the Arctic is going to increase the activity level in the region, but no one can fully anticipate what this new economic activity will look like. It is expected to be substantial. As such, Arctic nations are beginning to prepare so that they are able to respond to new contingencies.

That being said, the driving force for most Arctic states is a concern that the Arctic is changing and that they must be prepared for the consequences of those changes. Concern is particularly rising among some Arctic states that Russia is beginning to militarily redeploy to the Arctic. But this concern has yet to translate into a fear that the Russians are an actual threat, especially as none of the Arctic states are willing to acknowledge this potential military threat. Instead, the concern is to ensure that should Russian actions become more threatening the Arctic states will have the ability to respond if necessary.

An equally nebulous concern is the impact that climate change is expected to have. Most Arctic states have issued statements that the increasingly accessible melting Arctic is expected to facilitate new economic activities. The full nature of these activities is not yet understood. As such the concern is to be sufficiently prepared. This desire for preparation focuses the attention of most decision makers – Canadian included – on surveillance and enforcement capabilities. Most officials want improved means of knowing what is happening in the Arctic and they want to have the ability to respond if unlawful action occurs.

These concerns are accompanied by the growing recognition that the Arctic remains a very expensive region to operate in. As the Arctic states prepare plans to revitalize their security abilities in the Arctic, most recognize that it remains a challenging operational environment. Given the lack of existing infrastructure, any effort to improve both surveillance and enforcement capabilities remains costly. The current economic crisis has only heightened concerns over how an improved Canadian Arctic capability is to be achieved.

A general agreement was reached at the end of the Cold War that the strategic significance of the Arctic had ended and that the need to be concerned about traditional security threats was eliminated. The Soviet northern fleet with its vast number of nuclear-powered attack and nuclear missile carrying submarines (SSNs and SSBNs) was immediately retired. The collapse of the USSR was so total that the threat posed by these submarines changed overnight from a threat of nuclear war resulting in the destruction of North America (and even the world) to one of a potential Arctic environmental disaster as these vessels were left to rust in northern Russian harbours with the inherent risk of a massive radionuclear spill or accident. At the same time, almost all of the other Arctic nations reduced the northern element of their own forces. From 1989 to approximately 2002, the northern military capabilities of all of the Arctic states were substantially reduced.

There were some important exceptions. One of the most important, which received little attention, was the American decision to place one of two ballistic missile interceptor ground bases in Fort Greely, Alaska, in 2002. This base is now operational meaning that missiles designed for interception are now in the ground and ready to engage incoming missiles. The location is presumed to be well suited for a missile attack on the US from Asia. Currently, the Americans are supplementing their two bases with additional maritime mobile systems, such as placing anti-ballistic missiles onboard ships, and negotiating to place other interceptor sites in countries such as Poland. But with its secured silos placement, Fort Greely ensures that the Arctic will remain a strategic concern for the United States well into the future.

The Canadian effort to maintain military control over its Arctic ended almost as soon as the Cold War ended. Any meaningful military exercises were stopped and even the sovereignty patrols of the navy and air force were either stopped or reduced to only symbolic levels. The navy ceased its Northern

Deployments (NORPLOYs) in 1989. The air force reduced its northern sovereignty overflights from a high of 22 in 1987 to two by 1995. The only current land force presence in Canada's Arctic is the Canadian Rangers Units. As discussed previously, the Rangers are a militia unit comprised of local volunteers who are given a minimum of training, a red sweat-top, a rifle and some ammunition. While the Canadian Forces (CF) have traditionally provided them with very little, the Rangers provide the forces with a wealth of information and capabilities. They are important for providing surveillance of the regions they are located near. It is equally important that they have always provided the CF with a rich source of traditional knowledge. They know the land and how to survive on it. Thus they have proven to be a very important asset whenever the regular forces have wanted to operate in the north.

It was not until 1999 that members of the CF seriously reconsidered their role in the Arctic. This was to a certain degree the result of the initiative of individual officers who had become concerned about what they perceived to be a changing Arctic security environment.⁵² These concerns led to the creation of an interdepartmental (federal and territorial) security work group named the Arctic Security Intergovernmental Working Group (ASIWG) as well as an internal Department of National Defence (DND) review of its Arctic capabilities. After the terrorist attacks of September 11, 2001, the entire Canadian government began to take security issues much more seriously. In 2002, Canada resumed military training operations in the north. The initially limited affairs that took place on a small scale in August 2002, have become an annual event and are continually being evolved into more complex operations.

During the Martin administration, Canadian political leaders began to share the view that Canadian Arctic security required improvement. While too short-lived to act upon this realization, the Martin government either developed or was developing policies that highlighted the need for action. Releasing a set of policy papers on Defence, Diplomacy, Development and International Trade, the need to provide for Arctic security received substantial attention in the Defence and Diplomacy papers. This 2005 document, focussing on the expected rise of activity in the north, states, "[t]he demands of sovereignty and security for the government could become even more pressing as activity in the North continues to rise."⁵³ This document then continues to state that Canada will need to increase its ability to act in the north.

At the same time, the Martin government was developing a domestic policy statement that would provide a Government of Canada position on the north. This statement was an attempt to move away from the traditional approach of department specific policy and was further aimed to provide a Government of Canada Arctic policy. Referred to as the Northern Strategy, it was to be built on seven pillars or sub-sections, one of which was "Reinforcing Sovereignty, National Security and Circumpolar Cooperation."⁵⁴ Despite the Martin government's numerous meetings surrounding this document, it was not finalized before the government's defeat in the 2006 federal election.

The Harper government has fully accepted the need to improve Canada's ability to know what is happening in the north and to be able to act at the theoretical level. It has made a large number of promises. What remains uncertain is whether or not they will be funded. Prime Minister Harper's government has committed to the construction of six to eight Arctic offshore patrol vessels; the establishment of a northern military training base to be placed in Resolute Bay and the refurbishment of a retired mining site into a

⁵² Rob Huebert, "Renaissance in Canadian Arctic Security," *Canadian Military Journal* 6 no.4 (2005-2006): 17-29.

⁵³ Department of National Defence, *Canada's International Policy Statement: A Role of Pride and Influence in the World – Defence* (Ottawa: 2005): 17.

⁵⁴ Canadian Arctic Resource Committee (CARC), *Northern Perspective* 30, no.1 (Winter 2006): 2. Accessed June 5, 2009, http://www.carc.org/pubs/v30no1/CARC_Northrn_Perspectives_Winter_2006.pdf.

refuelling base in Nanisivik. Following these promises the government then made the protection of Arctic sovereignty and security a priority in its throne speech of October 16, 2007, as well as promising the construction of a world-class research station in the Canadian north.⁵⁵ From a policy position and in terms of rhetoric, the Harper government has made it clear that it considers the rebuilding of Canada's defence capabilities to be of a high priority. As discussed previously in this paper, it remains to be seen as to whether or not these commitments will be fulfilled.

Regardless, by 2009, it is clear that the need to improve Canada's ability to act is being taken more seriously. Other Arctic nations take note as they too revive their capabilities. Norway, Russia and the United States are beginning to look the most seriously at the need to act. From a strategic position, nuclear-powered submarines remain the principle weapon platform. At the end of the Cold War, both the Americans and Russians found themselves with very large fleets that were quickly deemed to be surplus. For the Russians this, in combination with their concurrent economic collapse, meant that their submarines were simply left to rust in harbour throughout the 1990s. The direct intervention of the G8 and Norway provided the Russians with both the funds and the technology to properly dispose of these submarines. At the same time all new submarine construction was halted.

The United States Navy also disposed of its older class of submarines, including the Sturgeon class, which was considered to be their best submarine for under-ice operations. Furthermore, the Seawolf class submarines, which were to be the new class of American SSNs, were scaled back to three vessels. A new and cheaper submarine, the Virginia class, was selected instead despite the fact that it was not given the same degree of under-ice capability as the Seawolf.⁵⁶

In 2004 both the Russians and then the Americans took action to rebuild their under-ice capabilities. On the basis of their improving financial situation, the Russian administrations of Putin and Medvedev began to rebuild their submarine forces.⁵⁷ They have just activated the nuclear reactor on their first new post-Cold War SSBN, the Yury Dolgoruky.⁵⁸ Under the Russian State Armaments Programme 2007-2015, the Russians committed to building five SSBNs, two SSNs and six diesel-powered submarines.⁵⁹ While it is understandable that the experience of losing much of their submarine capability in the decade and a half after the collapse of the USSR may encourage them to rebuild their submarine force, the geographic reality of Russia means that most of this reconstruction will be based in and around their Murmansk bases. This means that the north will regain some of its strategic significance, particularly for Russia.

The Russians have also begun to consider rebuilding their surface fleet capability. Recently the naval commander-in-chief announced the plan to build up their forces to six carrier battle-groups.⁶⁰ If built, most would be based at the Kola Peninsula, generating a substantial increase in naval traffic in northern waters as these vessels move in and out of harbour. This announcement has also been accompanied by an increase

⁵⁵ Government of Canada, "Protecting Canada's Future," Speech from the Throne. October 16, 2007. Accessed June 5, 2009, <http://www.sft-ddt.gc.ca/eng/media.asp?id=1364>.

⁵⁶ "SSN-774 Virginia-class New Attack Submarine [NSSN] Centurion," Globalsecurity.org. September 5, 2008. Accessed June 5, 2009, <http://www.globalsecurity.org/military/systems/ship/ssn-774.htm>.

⁵⁷ "Russian Navy Promised new Nuclear subs with new strategic missiles," *Bellona*, October 6, 2008. Accessed June 5, 2009, http://www.bellona.org/news/news_2008/new_nuke_subs.

⁵⁸ "Reactor on Russia's Newest Submarine Fired Up," *RIA Novosti*, November 21, 2008. Accessed June 5, 2009, <http://en.rian.ru/russia/20081121/118453947.html>.

⁵⁹ "Reactor on Russia's Newest Submarine Fired Up," *RIA Novosti*.

⁶⁰ Defence Update, "Russia Plans to Deploy 6 Carrier Battlegroups by 2025," 2007. Accessed June 5, 2009, http://defense-update.com/newscast/0707/news/150707_russian_Navy.htm.

in operations in the region. The Russian's Arctic sovereignty flights were suspended in 1992, but resumed in the summer of 2007.⁶¹ Using its long range TU-95 (Bear) patrol and bomber aircraft, the Russians are now sending out patrols over the Arctic and as far as the Sea of Japan and Cuba. Meanwhile, there are no reports that the Russians have violated any other state's airspace.⁶² The Russians are reported to be upgrading the TU-95 and the shorter ranged TU-165 and the TU-22 bombers.⁶³ Thus the bombers will be around for a substantial period of time to come.

The Russians resumed Arctic patrols of their surface naval vessels in 2008.⁶⁴ As in the case of the long-range bombers, their naval patrols had also ceased at the end of the Cold War. As a Russian navy official stated, "[t]he Russian Navy has restored the presence of combat ships of the Northern Fleet in the Arctic region, including in the region of Spitsbergen."⁶⁵ The two vessels, the destroyer *Severomorsk* and cruiser *Marshal Ustinov*, also made a point of sailing through several regions that are the subject of ongoing diplomatic disputes between Russia and Norway.

Before considering what this means for Canada, it is necessary to examine the actions of both Norway and the United States, both of whom are also rebuilding their Arctic capabilities. Both states are increasingly concerned about the development of potential security threats in the Arctic as resource development increases activity.

Norway has refocused its entire defence policy on the north. In a series of recent statements, the Norwegian Defence Minister Anne-Grete Strøm-Erichsen has made it clear that Norway recognizes that resources and climate change are bringing new actors to the north. To this end, the most recent Norwegian Defence Policy Review makes it clear that

[t]he northern regions are Norway's prime area for strategic investment. Norway's position as a significant energy exporter and as a country responsible for the administration of important natural resources extending over large sea areas, has an important bearing on security policy. We must be able to uphold our sovereignty and our sovereign rights, and to exercise authority in a proper way in areas under Norwegian jurisdiction. Even though the day-to-day challenges we face in the north are linked with economic factors, the administration of natural resources and regard for the Norwegian Security and Defence Policy environment, the Armed Forces play an important role by virtue of their operational capabilities with the emphasis on maintaining a presence and upholding national sovereignty in the North.⁶⁶

As a result Norway has been rebuilding its ability to operate in its Arctic region. It has a slightly easier task than the other Arctic states in that its Arctic waters seldom freeze because of the impact of the Gulf Stream. It is in the process of taking possession of five new frigates being built in Spanish yards. There is some controversy over these vessels as they are Aegis capable and also have a very sophisticated anti-submarine

⁶¹ BBC, "Russia restarts Cold War Patrols," *BBC News*, August 17, 2007, June 5, 2009, <http://news.bbc.co.uk/2/hi/europe/6950986.stm>.

⁶² Theophilos Argitis, "Canada's Harper Concerned Over Russian Bomber Flights," *Bloomberg.com*, September 19, 2008. Accessed June 5, 2009, <http://www.bloomberg.com/apps/news?pid=20601082&sid=aZn0SgnawmtU&refer=canada>.

⁶³ Martin Sieff, "Russia upgrades bomber-ALCM force for the 21st Century," *UPI.com*, January 5, 2009, Available June 5, 2009, http://www.upi.com/Security_Industry/2009/01/05/Russia_upgrades_bomber-ALCM_force_for_21st_century/UPI-39951231177215/.

⁶⁴ The Russian Federal Ministry of Defence, "Russian Navy Resumes Presence in Arctic Area," *News Details*, July 14, 2008, Accessed June 5, 2009, <http://www.mil.ru/eng/1866/12078/details/index.shtml?id=47433>.

⁶⁵ Associated Foreign Press, "Russian Navy Boasts Combat Presence in Arctic," *Canada.com*, July 14, 2008. Accessed June 5, 2009, <http://www.canada.com/topics/news/world/story.html?id=3572ff95-9a88-4dd8-944f-58af497c3fa6>.

⁶⁶ Norwegian Ministry of Defence, *Norwegian Defence 2008* (Oslo: 2008). Accessed June 5, 2009, http://www.regjeringen.no/upload/FD/Dokumenter/Fakta2008_eng.pdf.

capability.⁶⁷ The Aegis combat system gives these vessels the ability to search and respond to a wide number of aerospace threats. Governments who buy this expensive system are expecting their ships to be operating in a dangerous environment. These vessels have clearly been designed to fight against an advanced enemy; they are not simply for fisheries and resource patrols. The Norwegians have also announced that they will be moving air assets to northern bases and increasing the defence budget. Lastly they have also signed a contract to buy 48 F-35s Joint Strike Fighter aircraft in November 2008.⁶⁸ In sum they are building a small but modern war-fighting force.

The Americans are also rediscovering the Arctic. Senior officials have only recently discussed the need to reinvest in American Arctic security. Despite these recent developments, the United States has maintained the most vigorous Arctic capabilities. While it did decommission older nuclear-powered submarines, the United States maintained and added new submarines to its navy throughout the 1990s and 2000s. They also maintained a very strong air wing in Alaska. In total they kept three wings of National Guard F-15 (22 aircraft/wing) as well as a number of AWACs (large aircraft that carry advance radar and electronic systems designed to give a very detailed surveillance picture of the region around the aircraft). They are now replacing the F-15 with the newer F-22 Raptors. To support these activities the numbers of serving personnel remained at about 26,000 in 2005.⁶⁹ American forces based in the north have remained substantial.

American officials are primarily concerned about the ability to operate surface vessels in ice-reduced waters. Their current ice-breaking fleet officially includes three vessels. But two of the vessels are reaching the end of their operational life and there is some fear that neither one will remain operational for long.⁷⁰ There is also some concern that one of the older icebreakers should not be currently operating. For some time now, the American Coast Guard has argued that new icebreakers need to be built.⁷¹ However, despite considerable attention being paid to this issue, little movement has been made on the decision to begin new construction.⁷² The navy has also expressed concern about its ability to operate surface vessels in an increasingly ice-free Arctic. When it first began to examine the issue in 2001, it quickly discovered that it faced substantial communication and logistical problems operating at such high latitude.⁷³

In an effort to come to terms with the changing Arctic, the Americans have been engaged in a policy development process for the last year and half. To this end, the US executive branch, led by the Department of State and National Security Council,⁷⁴ reviewed its policies in the Arctic region. The core issues examined by this review were:

- 1.) national security and homeland security;
- 2.) international governance;
- 3.) extended continental shelf and boundary issues;

⁶⁷ Endre Lund, "Norway's New Nansen Class Frigates: Capabilities and Controversies," *Defence Daily Industries*, June 7, 2008. Accessed June 5, 2009, <http://www.defenseindustrydaily.com/norways-new-nansen-class-frigates-capabilities-and-controversies-02329/>.

⁶⁸ Doug Mellgreen, "Norway picks US fighter to replace aging fleet," *Foxnews.com*, November 20, 2008, http://www.foxnews.com/print_friendly_wires/2008Nov20/0,4675,EUNorwayJointStrikeFighter,00.html.

⁶⁹ These numbers were provided directly to the author by a Senior American Military Official in an open briefing in Alaska on March 10, 2005.

⁷⁰ Ronald O'Rourke, *Coast Guard Icebreaker Modernization: Background, Issues, and Options for Congress – CRS Report for Congress RL 34391* (Washington: Congressional Research Service, September 11, 2008). Accessed June 5, 2009, <http://fas.org/spp/crs/weapons/RL34391.pdf>.

⁷¹ Committee on the Assessment of U.S. Coast Guard Polar Icebreaker Roles and Future Needs, National Research Council, *Polar Icebreakers in a Changing World: An Assessment in a Changing World* (Washington DC: The National Academics Press, 2007). Accessed June 5, 2009, http://books.nap.edu/catalog.php?record_id=11753.

⁷² Andrew Revkin, "A Push to Increase Icebreakers in the Arctic," *New York Times*, August 16, 2008.

⁷³ Office of Naval Research, Naval Ice Center, Oceanographer of the Navy and the Arctic Research Commission, *Naval Operations in an Ice-free Arctic Symposium Final Report*, April 17-18, 2001. Accessed June 5, 2009, <http://www.natice.noaa.gov/icefree/FinalArcticReport.pdf>.

⁷⁴ Margaret F. Hayes, Director of Office of Oceans Affairs, Department of State, "Arctic Policy- Speech to Arctic Parliamentarians on Aspects of U.S. Arctic Policy," Fairbanks, Alaska, August 13, 2008.

- 4.) international scientific cooperation;
- 5.) shipping;
- 6.) economic issues including energy; and
- 7.) environmental protection and conservation of natural resources.⁷⁵

The Bush Administration released the above policy on January 9, 2009 as *Presidential Directive 66*.⁷⁶ The document makes it clear that national security considerations are the first priority of the United States when it comes to the Arctic.

This *Directive* presents five points in its National Security and Homeland Security Interests in the Arctic:

- 1.) The United States has broad and fundamental national security interests in the Arctic region and is prepared to operate either independently or in conjunction with other states to safe-guard these interests. These interests include such matters as missile defense and early warning; deployment of sea and air systems for strategic sealift, strategic deterrence, maritime presence, and maritime security operations; and ensuring freedom of navigation and overflight.
- 2.) The United States also has fundamental homeland security interests in preventing terrorist attacks and mitigating those criminal or hostile acts that could increase the United States vulnerability to terrorism in the Arctic region.
- 3.) The Arctic region is primarily a maritime domain; as such, existing policies and authorities relating to maritime areas continue to apply, including those relating to law enforcement. Human activity in the Arctic region is increasing and is projected to increase further in coming years. This requires the United States to assert a more active and influential national presence to protect its Arctic interests and to project sea power throughout the region.
- 4.) The United States exercises authority in accordance with lawful claims of United States sovereignty, sovereign rights, and jurisdiction in the Arctic region, including sovereignty within the territorial sea, sovereign rights and jurisdiction within the United States exclusive economic zone and on the continental shelf, and appropriate control in the United States contiguous zone.
- 5.) Freedom of the seas is a top national priority. The Northwest Passage is a strait used for international navigation, and the Northern Sea Route includes straits used for international navigation; the regime of transit passage applies to passage through those straits. Preserving the rights and duties relating to navigation and overflight in the Arctic region supports our ability to exercise these rights throughout the world, including through strategic straits.⁷⁷

It is clear from this policy position that the US expects the Arctic to become a strategically valuable region. In addition, the Bush Administration did not perceive a special relationship with Canada in the Arctic. It makes it very clear that it will be increasing its challenge to Canadian claims to control over the Northwest Passage. The document states that the United States "is prepared to operate either independently

⁷⁵ Margaret F. Hayes. "Arctic Policy- Speech to Arctic Parliamentarians on Aspects of U.S. Arctic Policy."

⁷⁶ White House, *National Security Presidential Directive 66/ Homeland Security Presidential Directive 25 – Arctic Region Policy*. January 9, 2009.

⁷⁷ White House, *National Security Presidential Directive 66/ Homeland Security Presidential Directive 25 – Arctic Region Policy*. 2-3.

or in conjunction with other states to safe-guard these interests.” Furthermore nowhere in the document does it refer to its traditional relationship of security cooperation with Canada in the Arctic. It fails to mention even North American Aerospace Defense Command (NORAD) as the core means of aerospace security for North America in the Arctic. Thus, if this document is not revised by the new American government it is clear that Canada should not expect the United States to be sensitive to its Arctic interests.

Where then does this leave Canada in regards to protecting its security? First, it is clear that the strategic environment in the Arctic is in flux. Arctic states are moving to improve their northern military capabilities. All of the main Arctic states contend that this is only being done to provide an ability to respond to the expected increase in activity in the Arctic. But it is interesting to note that both Norway and Russia are increasing their Arctic capabilities with weapon systems that are clearly designed to fight and not to act in a Coast Guard-type capability. Furthermore the Americans have used somewhat aggressive language in their most recent official statement that suggests they too will be looking to further develop the strategic nature of their forces.

Canada does not face a direct military threat in the Arctic – today. But the indicators are becoming somewhat worrisome. Why would Canada’s neighbours dedicate increasingly substantial resources for the harder edge of their security forces in the region unless they were beginning to see a need? Canada will need to maintain a careful watch on events as they unfold.

CONCLUSION

The Arctic is changing. It is changing in so many different ways and with such complexity that it almost seems impossible to comment on how best to protect Canadian Arctic sovereignty and security. Clearly Canadian officials are going to have to make some hard decisions sooner rather than later if Canada will ensure that it can control its section of the Arctic for the protection of Canadian interests and values.

Ultimately it does not matter what it is called: Arctic Sovereignty, Arctic Security, boundary delimitation or polar regime formation – Canada needs to be able to control what is happening in its Arctic. Very real and very substantial developments are occurring outside of Canada’s borders and beyond Canada’s control that will affect the Canadian north and those Canadians who call it home. Canada needs to ensure that it can and will respond to these developments promptly and decisively. Canada must assert its control of its Arctic region.

So how is this to be done? First it needs to be recognized that there is no one set solution to the problem. The rapid and complicated transformation of the Arctic is an ongoing process. It is difficult to imagine a time in the foreseeable future where the region will stabilize. Thus the government needs to be thinking in terms of process rather than result. The challenges of the Arctic require government action that transcends any one department. It is currently trendy to use terms such as “whole of government” when talking about efforts to break down departmental silos. The Arctic definitely requires that such silos be broken down. But Canadian Arctic policy needs to go even beyond this. The territorial governments must also be included, as well as the various northern aboriginal peoples organizations. But perhaps most importantly this process must have direct access to the Prime Minister. Canadian Arctic policy develops when the Prime Minister is interested. If not, other priorities quickly refocus the bureaucracy. Thus the creation of a Cabinet committee that is chaired by the Prime Minister would be one means to ensure that attention on the Arctic is maintained. There may be other means, but the main point is that the Prime Minister must be continually engaged in the process.

Once the attention of the Prime Minister is institutionalized, there are three major sets of actions that the Canadian government must follow in order to establish and then maintain control. To a certain degree, both the Martin and the Harper governments already began the process, but the critical point will be sustainability. Historically, Canadian governments have promised a wide array of policy actions only to renege on them when other political and economic issues have arisen. The issue then is developing a flexible long-term program that will be maintained. Ultimately this program needs to provide for the ability to:

- 1) know what is happening in the Canadian north;
- 2) enforce Canadian rules and laws
- 3) cooperate with Canada's circumpolar neighbours

One of the greatest political challenges now is the artificial divide that seems to be developing between Liberal and Conservative Arctic policy. A disturbing trend is emerging whereby the Conservatives are focusing on providing Canada with enforcement and surveillance capabilities while the Liberals traditionally focused on diplomatic initiatives. In keeping with their policy position, the Conservatives eliminated the position of Circumpolar Ambassador and have contentedly followed the diplomatic initiatives of the other Arctic states. Throughout the entire Chretien era no discussion was ever undertaken regarding building up Canadian Arctic capabilities. This debate is being increasingly cast in unilateral versus multilateral terms. The Conservatives are perceived as focusing on Canada's military while the Liberals are viewed as focusing on the diplomatic requirements for establishing control. The reality is that both sets of action are required. Canada needs to have strong surveillance and enforcement capabilities to control the new activities that will increasingly be taking place in the Arctic. These capabilities will primarily be the responsibility of the DND. However, they will absolutely need to work with other departments such as Coast Guard and Royal Canadian Mounted Police to name a few. But DND's characterization as the main ministerial department should not lead to the conclusion that the Arctic is being militarized. The simple fact remains that DND has the greatest capability to provide for both surveillance and enforcement in the vast regions of the Arctic.

At the same time, Canada cannot act in isolation in the Arctic. It needs to work with its Arctic neighbours in order to develop the international frameworks that will provide both the international rules necessary to protect the Arctic as well as a spirit of cooperation in the region. The new accessibility of the Arctic will bring new actors and activities to the region and it will therefore be necessary to develop a regional set of rules and arrangements for these new activities. These include a coordinated approach to search and rescue, as well as pollution response for environmental accidents that will inevitably occur. It would also be beneficial for the entire region if agreements were reached on future economic activity. A regional approach to the expanding Arctic fisheries would head off differences before they arise over the issue of fishing new stocks as they move north. Likewise a regional approach to all shipping coming into the Arctic could be a means of avoiding the sovereignty challenges surrounding the issue of international shipping. If the Arctic nations could agree on the standards for ship construction and operation and crew requirements in Arctic waters, then Canada could possibly achieve the control it seeks over the expected shipping in Canadian northern waters. This almost occurred in the 1990s when Canadian officials led an initiative, known as the Polar Code, to develop an agreement to do precisely this. However, it failed to achieve American acceptance. The initiative was then shifted to the IMO and is now being brought about as a voluntary set of regulations. Perhaps now is the time for Canada to revisit this Code at the state level.

The greatest international challenge facing Canada may be the reality that two of its Arctic neighbours are the United States and Russia. Canadian foreign relations have always focused primarily on these two states. The United States is Canada's most important trading partner and ally. At various times throughout

Canada's recent history the former USSR was both an important ally and a most dangerous enemy. Throughout the Cold War period, both the United States and Russia's importance and significance to Canada was amplified by their geographic location as Arctic neighbours. Now that the Arctic is warming and becoming more accessible the dynamics of this relationship are about to become even more important.

Canada must work with both the US and Russia in the region. The problem is that as the entire Arctic becomes more accessible, these two states have very definitive views as to their own national interests in the Arctic. The Russians see the Arctic as the key to their future economic prosperity. They understand that the undeveloped oil and gas resources in their Arctic region will provide them with the economic capability to regain their great power status. They are also aware that from a strategic perspective the north is their primary access to the world's oceans. Therefore, the Arctic is of central importance to them.

During the past few years, the Russians have clearly become more assertive in their foreign policy, including their policy in the Arctic. This does not mean a return to the Cold War, but it does signify that the period of complete cooperation of the 1990s has ended. Canada can still expect to work with the Russians, but any effort to cooperate now needs to be tempered by a more realistic framework. The Russians will not cooperate simply for the benefit of cooperation. Rather it will be increasingly necessary for Canada to show the Russians why cooperation is in their interest. At the same time, when Canadian interests do not intersect with Russian interests, the Canadian government needs to be prepared for an increasingly assertive Russian response. Such an incident would occur if Canada decides to claim any part of the Arctic continental shelf that has been claimed by the Russians. If this happens, the Russian government's reaction will set the tone for future Canadian-Russian relations. If the reaction is tempered and diplomatic, Canada should seize the moment by trying to further engage the Russians in other means of cooperation. If the reaction is more belligerent, then Canada may need to garner support from its other Arctic neighbours in order to maintain its claim.

Canada's Arctic relationship with the United States will also continue to develop. It is becoming clear that the Americans recognize the Arctic's importance. Furthermore, it is also evident that they are increasingly aware of the transformations taking place in the region. Canada's key challenge will be to minimize, if not resolve, the various disputes over boundaries and sovereignty in the North American Arctic. The issues of control of international shipping through the Northwest Passage and the division of the Beaufort Sea are challenging. However, the two states must find ways to prevent these issues from contaminating future cooperation. Ultimately, the two states must find ways to cooperate in the Arctic since it is in their mutual interest to do so. Both states need to ensure that the new activities in the Arctic are controlled in such a manner so that environmental protection remains a core requirement. At the same time, it is also in the interests of both states to ensure that those who call the north home benefit fully from the forthcoming activities. This can best be achieved by cooperation.

Thus Canada needs to pay special attention to its relationship with Russia and the United States. While many of the issues can be addressed on a bilateral fashion, the time has arrived for Canada to renew its efforts to strengthen the multilateral forums in the region. The Arctic Council is at the centre of this. The Council was a Canadian initiative. Its creation had strong bipartisan support from both the Mulroney Conservatives and the Chretien Liberals. American reluctance to strengthen multilateral bodies during the 1990s stymied Canadian efforts to give the Council greater powers. Officially the Americans still hold this position as evident in their Arctic policy released in January 2009. However, the same policy held out the possibility that they may be willing to reconsider it. It is in Canada's interests to convince the Americans that it is in their interests to have a stronger Arctic Council.

Canada will soon resume the chairpersonship of the Arctic Council. Canada can serve the interests of the region and itself by dedicating its time as chair to strengthening the Council. First Canada needs to avoid directly undermining the Council. For example, the Ilulissat meeting in May 2008 of the five Arctic continental shelf claimant states should have taken place within the Arctic Council. While Iceland, Sweden and Finland do not have claims, each state will be affected by what happens within the areas claimed by others. Likewise the permanent participants also have interests in these regions. Yet these members of the Council were excluded from this very important meeting. At that time Canada should have insisted that the Council host the meeting. Second, Canada should lead the way in creating a more powerful support system for the Council. Relying on each member state to simply volunteer support is not working. Canada should establish some form of a permanent support body. Third, Canada should also take the initiative to work out a series of regional agreements to deal with issues such as standards for international shipping (as it tried in the 1990s with the Polar Code), fishing, tourism, environmental protection and so on. Canadian interests are best served by the creation of such agreements now and not later when many other competing interests will seek to be included.

Ultimately, Canada needs to recognize what it wants its Arctic to look like in the emerging future. The time when lip service could be paid to the north is over. The forces of transformation are creating a new era in which the world will be coming to the entire Arctic region. Canada can choose to simply react to the new changes or it can take the lead and recognize that there are both dangers and opportunities. The dangers can be mitigated by thoughtful preparation. The opportunities can best be taken advantage of by deciding what it is that Canada wants its north to look like and the level of resources that it is willing to allocate to promoting and protecting Canadian interests and values.

This will not be an easy task. It will not be cheap. Furthermore, any Canadian action will include missteps and mistakes. The Canadian government will ensure its control over its Arctic region if and when it takes proactive action. This ultimately means being able to know what is occurring in the Arctic and then having the capabilities to act. But being able to know and act in the Arctic serves as the means for the real objective which is to ensure the protection of Canadian Arctic security and sovereignty for Canadians. In this manner, the protection of Canadian interests and values for Canadians must inform all Canadian actions. The actions of recent Canadian governments suggest that they understand this. The question remains as to whether or not the Canadian government is willing to pay for it.

ACRONYMS LIST

ACIA	Arctic Climate Impact Assessment
AEPS	Arctic Environmental Protection Strategy
AMAP	Arctic Monitoring and Assessment Programme
ASIWG	Arctic Security Intergovernmental Working Group
BP	British Petroleum
CAFF	Conservation of Arctic Flora and Fauna
CF	Canadian Forces
CLCS	Commission on Limits of the Continental Shelf
DEW	Distant Early Warning
DND	Department of National Defence
EEZ	Exclusive Economic Zone
IMO	International Maritime Organization
NORAD	North American Aerospace Defense Command
NORPLOY	Northern Deployment (Canadian Maritime Forces)
UNCLOS	United Nations Convention on the Law of the Sea
UV	Ultraviolet

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